APPENDIX T

Transportation Analysis Report

The Ranch at Madison

Transportation Analysis Report

Prepared for:
Discovery MM Club, LLC,

Riverside County

Submitted on:

July 6, 2026

Submitted by:

Fehr & Peers

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Executive Summary

Fehr & Peers has completed a transportation analysis for the proposed Ranch at Madison (Project) in the unincorporated community of Vista Santa Rosa in Riverside County. This study presents the Level of Service (LOS) and Vehicle Miles Traveled (VMT) analysis consistent with the *County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled* (December 2020)[1]. This study is consistent with the requirements of Senate Bill 743 (SB 743), the California Governor's Office of Land Use and Climate Innovation's *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018).

Project Description

The proposed Ranch at Madison Specific Plan (Project) would allow the development of a new residential community, accompanied by residential amenities, on approximately 175 acres of vacant property located east of Monroe Street and south of 52nd Avenue in the unincorporated community of Vista Santa Rosa. Vista Santa Rosa is located south of the City of Indio and east of the City of La Quinta in the Coachella Valley.

The Project includes 85 single-family dwelling units and a private nine-hole golf course for use by community residents and exclusive members. These 85 units will be distributed across low-density residential, medium-density residential, and mixed-use planning areas; however, all will function as single-family residences. The Project includes the proposed vacation of the portion of Avenue 53 located within the Project Site and the southerly extension and improvement of Arabia Street to 52nd Avenue to provide an alternative access route.

Two scenarios are evaluated within this assessment, 1) the Proposed Project, which includes the vacation of Ave. 53 within the Project Site and 2) a Project Alternative, which maintains Ave 53 within the Project Site (Section 6).

CEQA Transportation Impact Analysis

CEQA Guidelines Section §15064.3 requires Vehicle Miles of Travel (VMT) analysis for land use projects. Based on the screening criteria in the *County of Riverside's Transportation Analysis Guidelines (TAG) for Level of Service & Vehicle Miles Traveled* (December 2020) the VMT impacts of the Project were determined to be less than significant based on the number of residential units proposed (**Appendix B**)[1]. A full VMT assessment was prepared, even though not required under the County's TAG, in accordance with the County's VMT analysis methodology using the RIVCOM Transportation Demand Model. This analysis confirmed that the proposed project will not result in a significant impact as defined by CEQA as a result of the increase in VMT associated with the project. The Ranch at Madison – Vehicle Miles Traveled (VMT) Assessment can be found in **Appendix C**.

[1] County of Riverside TIA Guidelines (2020)

Level of Service (LOS) Analysis

The scope of the traffic forecasts was prepared and approved by the County of Riverside, and Level of Service (LOS) was calculated at nine total study intersections for the following scenarios and alternatives:

- Existing (2025)
- Opening Year (2030) Plus Project (Proposed Project and separately for the Project Alternative)
- Opening Year (2030) Plus Project and Cumulative Projects (Proposed Project and separately for the Project Alternative)

The cumulative scenario considers other approved projects, consistent with the guidance in Section 15125 (a)(1) of the CEQA Guidelines, which states that an EIR should describe physical environmental conditions as they exist at the time the notice of preparation for an EIR is published. The notice of preparation for the Ranch at Madison Specific Plan EIR was published in August 2025. A list of approved projects identified by the County in August 2025 is provided in **Appendix D.**

The County's Guidelines also state that the cumulative scenario may include projects that are proposed and in the review process, but not yet approved, consistent with the guidance in Section 15130 (b)(1) of the CEQA Guidelines which states that analysis of cumulative effects should consider either a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, or a list of past, present and probable future projects. The list of approved projects are "past" projects, and proposed projects in the County's review process, but not yet approved, represent "present" projects.

In April 2026, the owner of approximately 215 acres of property located east of the Project Site provided information to the County related to preliminary conceptual planning for a development project on this property. A general description of several alternative mixes of land uses being under consideration was provided. A formal application for this project has not been submitted to the County and, for this reason, this potential future project is not in the County's review process at this time. While the County's Transportation Analysis Guidelines do not require that projects not submitted and in the County review process be considered in the cumulative scenario, the County is considering this as a "probable future" project in the local transportation analysis. A description of the uses assumed on this property for purposes of analysis is also provided in **Appendix J**.

Two intersections, 52nd Avenue at Arabia Street (under the Proposed Project only) and Avenue 53 at Monroe Street (under the Project Alternative only), are forecast to operate at less than the County's acceptable LOS of LOS C or better. Improvements identified to improve the LOS of these intersections to an acceptable LOS include the installation of a traffic signal at 52nd Avenue at Arabia Street. In the project alternative, the identified improvement is the restriping of the west leg to be a dedicated eastbound left turn lane and shared eastbound through and right turn lane. The Project's fair share financial contribution towards the cost of these improvements is identified.

1. Introduction

Fehr & Peers completed a transportation assessment for the proposed Ranch at Madison Specific Plan (Project) in the unincorporated Vista Santa Rosa community in Riverside County. This report presents the methodology, analysis, and findings of the Transportation Impact Assessment (TIA) prepared for the Project. The analysis includes a local transportation Level of Service (LOS) assessment to evaluate the need for improvements to the roadway system to allow it to operate at an acceptable level of service with the addition of traffic from the proposed project and cumulative projects.

This chapter describes the proposed project, geographic scope of the transportation impact analysis, and analysis scenarios. This assessment is consistent with the requirements outlined in *County of Riverside Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (2020).* The scoping agreement was approved by the County on October 23, 2025 (see **Appendix A** – *Scoping Agreement for Transportation LOS Analysis*).

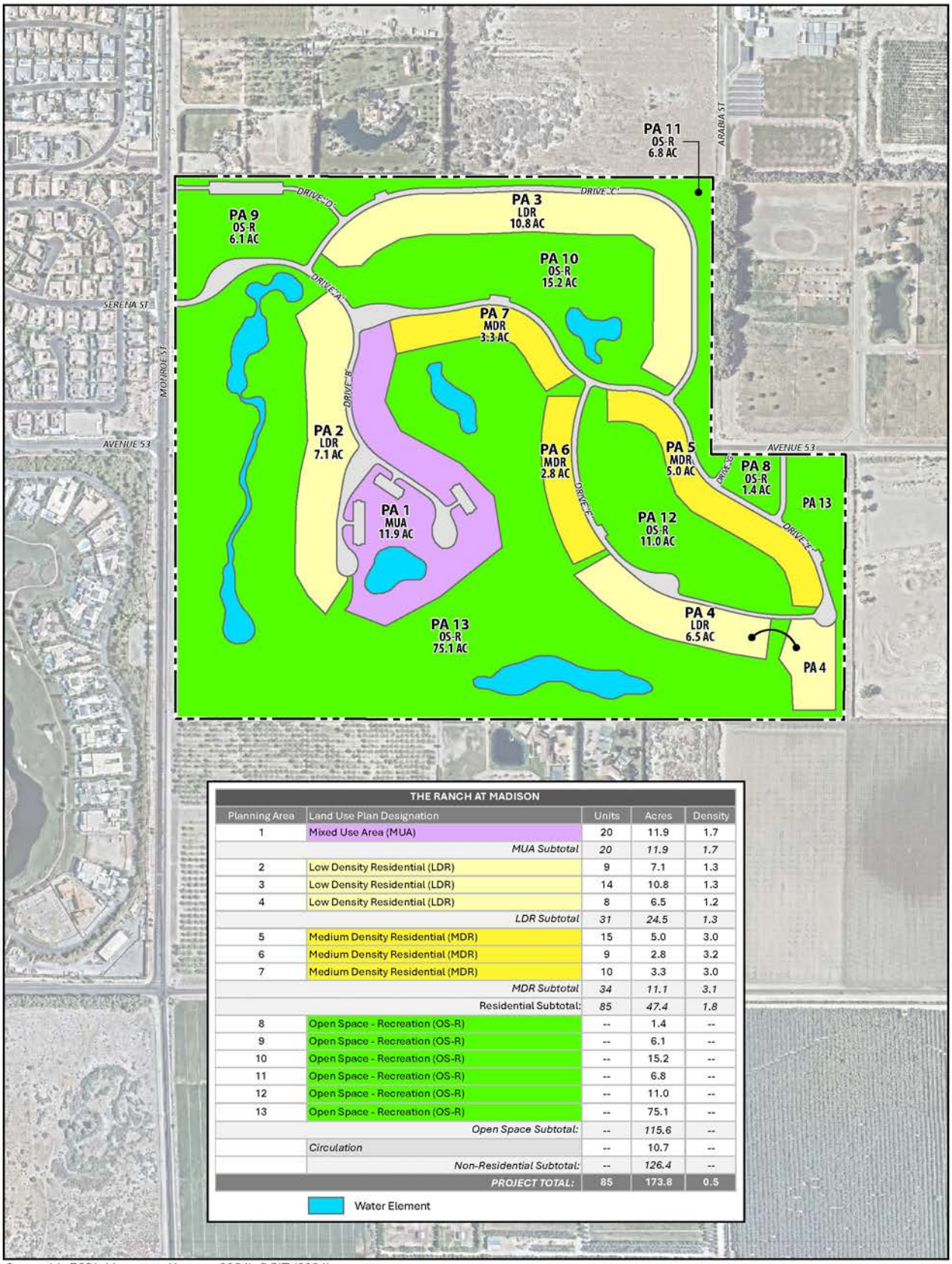
1.1 Project Description

The proposed Ranch at Madison Specific Plan (Project) would allow the development of a new residential community, accompanied by residential amenities, on approximately 175 acres of vacant property located east of Monroe Street and south of 52nd Avenue in the unincorporated community of Vista Santa Rosa. Vista Santa Rosa is located south of the City of Indio and east of the City of La Quinta in the Coachella Valley.

The Project includes 85 single-family dwelling units and a private nine-hole golf course for use by community residents and exclusive members. These 85 units will be distributed across low-density residential, medium-density residential, and mixed-use planning areas; however, all will function as single-family residences.

The Project includes the proposed vacation of the portion of Avenue 53 located on the Project Site and the southerly extension of Arabia Street to Avenue 53 to provide alternative access for the Project Site and surrounding properties meeting County of Riverside standards. Access to the Project Site is proposed at three proposed locations, two on Monroe Street and one on Avenue 53 and shown in **Figure 1**. Primary access would be provided by a new street (Driveway A) aligned with Via La Serena Street on Monroe Street, proposed as a signalized intersection. Secondary access would be provided by a new street (Driveway G) aligned with Avenue 53 proposed as a Side Street Stop Control (SSSC). Service, construction, and secondary emergency access is provided at the northwest corner of the Project (Driveway D), and from the east at Avenue 53; access would be restricted to right-in/right-out only. A median extending along Monroe Street, across Avenue 53, is proposed to restrict access to Avenue 53 west of Monroe Street to right-in/right-out only.

Figure 1: Proposed Project Site Plan



THE RANCH AT MADISON				
Planning Area	Land Use Plan Designation	Units	Acres	Density
1	Mixed Use Area (MUA)	20	11.9	1.7
	MUA Subtotal	*20*	*11.9*	*1.7*
2	Low Density Residential (LDR)	9	7.1	1.3
3	Low Density Residential (LDR)	14	10.8	1.3
4	Low Density Residential (LDR)	8	6.5	1.2
	LDR Subtotal	*31*	*24.5*	*1.3*
5	Medium Density Residential (MDR)	15	5.0	3.0
6	Medium Density Residential (MDR)	9	2.8	3.2
7	Medium Density Residential (MDR)	10	3.3	3.0
	MDR Subtotal	*34*	*11.1*	*3.1*
	Residential Subtotal:	*85*	*47.4*	*1.8*
8	Open Space - Recreation (OS-R)	--	1.4	--
9	Open Space - Recreation (OS-R)	--	6.1	--
10	Open Space - Recreation (OS-R)	--	15.2	--
11	Open Space - Recreation (OS-R)	--	6.8	--
12	Open Space - Recreation (OS-R)	--	11.0	--
13	Open Space - Recreation (OS-R)	--	75.1	--
	Open Space Subtotal:	--	*115.6*	--
	Circulation	--	10.7	--
	Non-Residential Subtotal:	--	*126.4*	--
	PROJECT TOTAL:	**85**	**173.8**	**0.5**

Water Element

Source(s): ESRI, Nearmap (August 2024), RCIT (2024)
Composite: RTM (09-05-2025)

0 175 350 700 Feet

Figure 2-1

Specific Land Use Plan

1.2 CEQA Assessment – VMT Analysis

According to current CEQA guidelines, the Project meets CEQA Screening Criteria identified in the *County of Riverside Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (2020)* and no CEQA Transportation Impact (VMT) Analysis is required based on the number of residential units proposed. The Project VMT Screening Memo is provided in **Appendix B**. A full VMT assessment was prepared, even though not required by the County's Transportation Analysis Guidelines, in accordance with the County's VMT analysis methodology using the RIVCOM Transportation Demand Model. This analysis confirmed that the proposed project will not result in a significant impact as defined by CEQA as a result of the increase in VMT associated with the project. The Ranch at Madison – Vehicle Miles Traveled (VMT) Assessment can be found in **Appendix C**.

1.3 Level of Service (LOS) Analysis

The LOS analysis analyzes the LOS at the study intersections to determine the need for improvements to maintain acceptable intersection operations. LOS is a qualitative description of traffic flow from a vehicle driver's perspective based on factors such as speed, travel time, delay, and freedom to maneuver. The Highway Capacity Manual 7th Edition (HCM) identifies six levels of service ranging from LOS A (free-flow conditions) to LOS F (over capacity conditions). The County of Riverside utilizes a "LOS D or better" minimum standard for intersection operations for Western Coachella Valley and "LOS C or better" minimum standard for Eastern Coachella Valley. The "LOS C or better" standard was used consistently across all study intersections, including those with split jurisdiction between the County and the neighboring cities of La Quinta and Indio. such as Monroe Street at 52nd Avenue.

Study Area

The study area was determined based on trip generation and distribution estimates and includes intersections where more than 50 peak hour trips are likely to be added as a result of the Project. **Figure 2** shows the study area. Fehr & Peers evaluated operations at the following nine study intersections relative to the Proposed Project and Project Alternative scenarios, the latter is detailed in Section 6:

1. Monroe Street and Avenue 50
2. Monroe Street and 52nd Avenue
3. Arabia Street and 52nd Avenue (Proposed Project)
4. Jackson Street and 52nd Avenue
5. Monroe Street and Via La Serena Street (Driveway A)
6. Monroe Street and Avenue 53
7. Driveway G and Avenue 53 (Proposed Project)
8. *Driveway A and Avenue 53 (Project Alternative – Section 6)*
9. *Driveway G and Avenue 53 (Project Alternative – Section 6)*

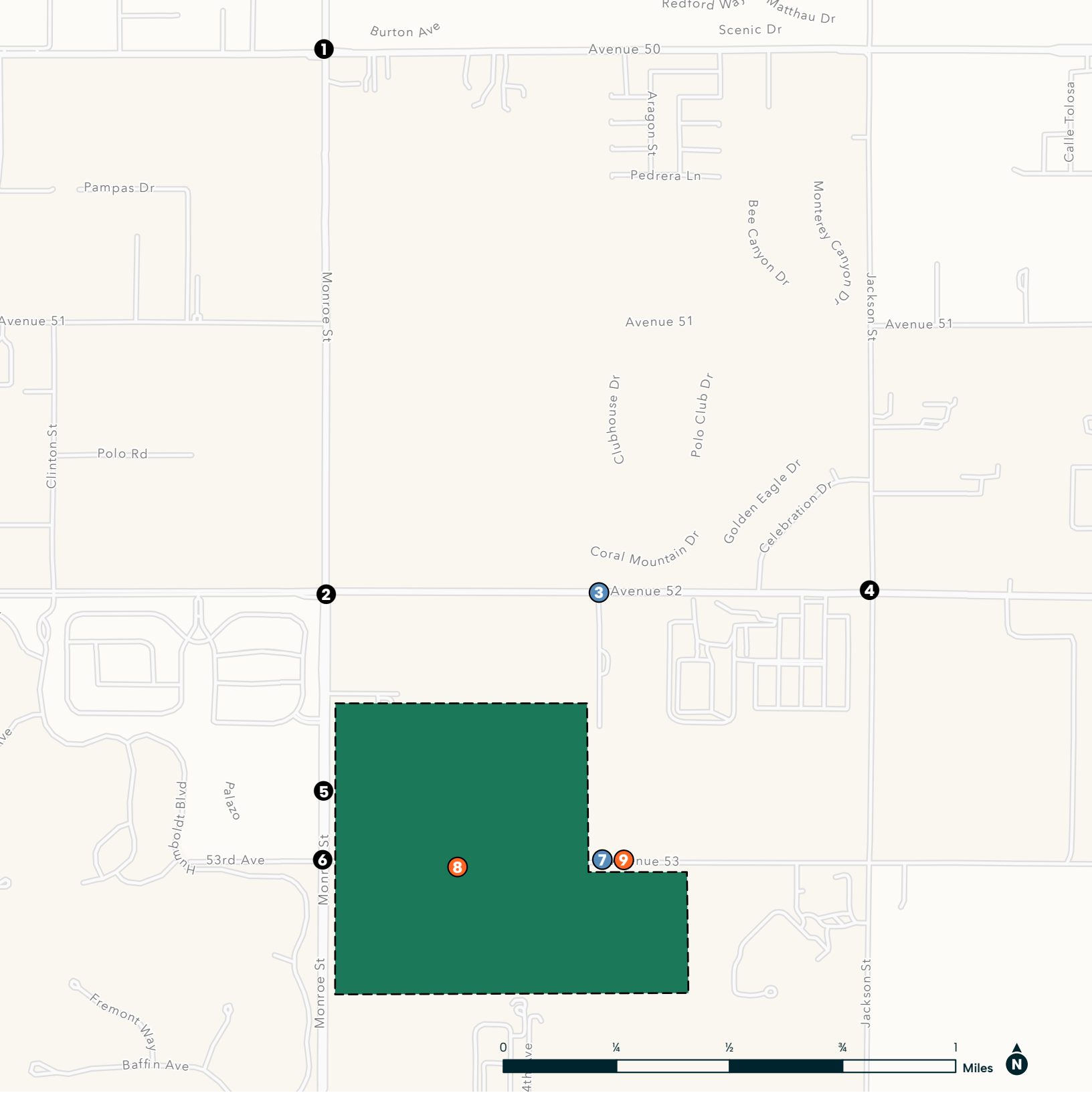


FIGURE 2

Project Study Area

Fehr & Peers

Analysis Scenarios

Fehr & Peers studied the AM and PM peak hour LOS at the identified study intersections for the following scenarios:

- Existing (2025) Conditions: Existing (2025) traffic volumes, lane geometries, and traffic signal timing.
- Opening Year (2030) Plus Project Conditions (Proposed Project): Background traffic volumes during the Project's opening year with traffic volumes generated by the Project. The opening year volumes were developed by applying an ambient growth rate of 2% to the Existing (2025) traffic volumes.
- Opening Year (2030) Plus Project Plus Cumulative Projects Conditions (Proposed Project): Opening Year Plus Project traffic volumes plus traffic generated by cumulative projects within a five-mile radius of the Project.

1.4 Report Organization

The remainder of this report is organized into the following chapters:

- **Chapter 2 – Analysis Methodology** describes the methods and assumptions used to complete the local transportation study which are consistent with the County's guidelines.
- **Chapter 3 – Existing Year (2025) Conditions** describes the transportation system in the Project vicinity, including the surrounding roadway network, AM and PM peak period intersection turning movement volumes and intersection LOS, and existing bicycle, pedestrian, and transit facilities.
- **Chapter 4 – Project Characteristics** presents relevant Project information including Project trip generation, distribution, and assignment.
- **Chapter 5 – Local Transportation Study** evaluates the Project's potential effects on the surrounding roadway network including intersection operations and intersection queueing. Improvements and the Project's fair share contribution towards improvements at deficient locations are identified.
- **Chapter 6 – Project Alternative** describes the analysis and project characteristics relative to the Project Alternative (as outlined in the Scoping Agreement) and the potential effect on surrounding roadway network including intersection operations and intersection queueing. Improvements and the Project's fair share contribution towards improvements at deficient locations are identified.

2. Analysis Methodology

The analysis methodologies and assumptions used to evaluate the Project are described below and consistent with the scoping memorandum that was approved by Riverside County on October 23, 2025, included as **Appendix A**.

2.1 Intersection Analysis

Intersection operating conditions were evaluated using the Transportation Research Board (TRB) *Highway Capacity Manual* (HCM) *7th Edition* methodology, which is considered the state-of-the practice methodology for evaluating intersection operations.

The HCM 7th Edition methodology for signalized and all-way stop-controlled intersections estimates the average control delay for vehicles at intersections. For side-street stop-controlled intersections, The HCM 7th Edition methodology estimates the worst-case approach delay.

After the quantitative delay estimates are complete, the methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for signalized and unsignalized intersections are provided in **Table 1**.

Fehr & Peers used the Synchro 12 software to facilitate the HCM calculations intersections. The following parameters are consistent with the County's Guidelines (*County of Riverside Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled* (2020)) and HCM for use in the LOS analysis:

- Measured Peak Hour Factors (PHF) were utilized in the Existing (2025) and Opening Year (2030) scenarios.
- Signal timing information for Intersection #1 was provided by the City of Indio. This signal timing was used for the Existing (2025) and Opening Year (2030) Plus Project scenarios.
- A standard heavy vehicle factor of 2% was used for all analysis scenarios.

Table 1. Intersection Level of Service (LOS) Grades

Level of Service	Description	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	> 80.0	> 50.0

Source: Highway Capacity Manual 7th Edition (Transportation Research Board, 2022).

2.2 LOS Standards

To determine intersection operation deficiencies at study intersections, The County of Riverside utilizes a "LOS D or better" minimum standard in Western Coachella Valley and "LOS C or better" minimum standard in Eastern Coachella Valley. The "LOS C or better" standard was applied across all study intersections, per the County of Riverside Transportation Analysis Guidelines, including those with split jurisdiction between the County and the neighboring cities of La Quinta and Indio. such as Monroe Street at 52nd Avenue.

3. Existing Year (2025) Conditions

This chapter summarizes the Existing Year (2025) Conditions of the roadway, transit, bicycle, and pedestrian networks within the Project study area and documents existing traffic volumes and intersection operations.

3.1 Existing Roadway Facilities

Regional Roadways

Regional roadways in the Project vicinity include:

- **State Route 111 (SR-111)**: SR-111 is a state highway that runs in north/south direction from Palm Springs at the northernmost end to the US-Mexico border at the southernmost end. Within the region, SR-111 functions as a major arterial connecting the multiple cities in the Coachella Valley region to one another. SR-111 is located north and east of the Project site and near the Project site is generally a 4-lane facility (two lanes in each direction). Access to SR-111 near the Project study is provided at Monroe Street, Jackson Street, Avenue 50, and 52nd Avenue.
- **Interstate 10 Freeway (I-10)**: I-10 is an interstate highway that runs in the east/west direction from Santa Monica at the westernmost end to Jacksonville, Florida at the easternmost end. Within the region, I-10 connects the Coachella Valley to the greater Los Angeles and Inland Empire region. I-10 is located north of the Project site and near the Project Study area is generally a 4-lane facility (two lanes in each direction). Access to 1-10 near the Project study area is provided at Monroe Street and via State Highway 86.
- **State Route 86 (SR-86)**: SR-86 is a state highway that runs in the north/south direction from Coachella at the northern most end to US-Mexico border at the southernmost end. Within the region, SR-86 provides an important freeway alternative to Highway 111 between the Coachella Valley and I-10. SR-86 is located east of the Project and near the Project Study area is generally a 4-lane facility (two lanes in each direction). Access to SR-86 near the Project study area is provided at Avenue 50 and 52nd Avenue.

Local Access Roads

Local access roads in the Project vicinity include:

- **Monroe Street**: Monroe Street is classified in the Riverside County General Plan Circulation Element as an Arterial Roadway which runs in the north/south direction along the western boundary of the Project site. The posted speed limit on Monroe Street is generally 50 miles per hour. The western half of Monroe Street south of 52nd Avenue is in the City of La Quinta.
- **Avenue 53**: Avenue 53 is classified in the Riverside County General Plan Circulation Element as a Collector west of Monroe Street and has no designation east of Monroe Street, where it was assumed to be a Local Street. Avenue 53 runs in the east/west direction near the eastern boundary of the Project Site. There is no posted speed limit on Avenue 53.
- **Arabia Street**: Arabia Street has no designation per the Riverside County General Plan Circulation Element and was assumed to be classified as an Enhanced Local Street because it is adjacent to a school. Arabia Street runs in the north/south direction and currently provides

access to Cahuilla Desert Academy. The posted speed limit on Arabia Street is 25 miles per hour.

- **52nd Avenue**: 52nd Avenue is classified in the Riverside County General Plan Circulation Element as an Arterial Roadway which runs in east/west direction, located north of the Project site. The posted speed limit on 52nd Avenue is 55 miles per hour.
- **Jackson Street**: Jackson Street is classified in the Riverside County General Plan Circulation Element as an Arterial Roadway which runs in the north/south direction and is located east of the Project site. The posted speed limit on Jackson Street is 55 miles per hour.
- **Avenue 50**: Avenue 50 is classified in the Riverside County General Plan Circulation Element as an Arterial Roadway which runs in the east/west direction, located north of the Project site. The posted speed limit on Avenue 50 is 50 miles per hour.

3.2 Bicycle Facilities

Bicycle facilities are classified as follows:

- **Class I – Bike Path or Bike Trail**: Class I facilities are bicycle trails or paths that are off-street and separated from automobiles. They are a minimum of eight feet in width for two-way travel and include bike lane signage and designated street crossings where needed. A Class I Bike Path may parallel a roadway (within the parkway) or may be a separate right-of-way that meanders through a neighborhood or along a flood control channel or utility right-of-way.
- **Class II – Bike Lane**: Class II Bike Lanes can be either located next to a curb or parking lane. If located next to a curb, a minimum width of five feet is recommended. However, a Bike Lane adjacent to a parking lane can be four feet in width. Bike Lanes are designated for the use of bicycles and include bike lane signage, special lane lines, and pavement markings.
- **Class III – Bike Routes**: This is a street for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage – both by the side of the street and stenciled on the roadway surface – alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route.
- **Class IV – Separated Bikeway**: Class IV bicycle facilities, sometimes called cycle tracks or separated bikeways, provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway and are protected from vehicular traffic via separations (e.g. grade separation, flexible posts, inflexible physical barriers, on-street parking).

Existing Bicycle Facilities

Class II bike lanes are located near the Project on select roadways.

- On the west side of Monroe Street, between 52nd Avenue and Avenue 54, there is a Class II bike lane.
- On the north side 52nd Avenue, between Monroe Street and Jackson Street, there is a Class II bike lane.
- On Avenue 53, between Monroe Street and Palazo, Class II bike lanes are present on both sides of the roadway.

Planned Bicycle Facilities

Near the Project vicinity, the City of La Quinta 2035 General Plan identifies Class II bike lanes along 52nd Avenue, Monroe Street, and Jackson Street.

3.3 Pedestrian Facilities

Existing Pedestrian Facilities

There are pedestrian facilities located in the study area, although some roadway segments do not include pedestrian facilities.

- Along Monroe Street from Avenue 54 to Mountain Spur Drive, there is a trail on the west side of the street and from Mountain Spur Drive to 52nd Avenue there are sidewalks on the west side of the street.
- On the east side of Monroe Street from Avenue 54 to 52nd Avenue and on the west side from 52nd Avenue to Avenue 50 there are no sidewalks
- On the west side of Monroe Street from 52nd Avenue to Avenue 50 there are sidewalks
- On the north side of Avenue 50 there are sidewalks but on the south side there are no sidewalks
- On 52nd Avenue, there are sidewalks on the north side of the street but not on the south side of the street.
- On Jackson Street, there are sidewalks present on the west side of the street but not on the east side of the street.
- Sidewalk exists on the east side of Arabia Street fronting the school between 52nd Avenue to the end of the cul-de-sac.

3.4 Transit Facilities

Bus Transit

Sunline Transit Agency is Coachella Valley's public transit operator and operates local transit service across the Coachella Valley region. Sunline Transit Agency operates fixed route bus services. The nearest bus route services would be Route 6, which has a stop at Monroe Street and Avenue 48, and Route 8, which has a stop at Avenue 50 and Calhoun Street.

3.5 Existing Year (2025) Traffic Volumes

Data Collection

Traffic counts in the Coachella Valley should be collected during the Spring season to reflect the busiest yearly influx of residents in the region. Traffic counts were collected during morning peak period (7:00 AM to 9:00 AM) and evening peak period (4:00 to 6:00 PM) and conducted during fair weather, while school was in session, and during a typical (non-holiday) weekday on the following dates:

- February 6, 2025, at Intersections #1, #2, and #6
- May 22, 2025, at Intersections #3 and #4
- December 11, 2025, at Intersection #5

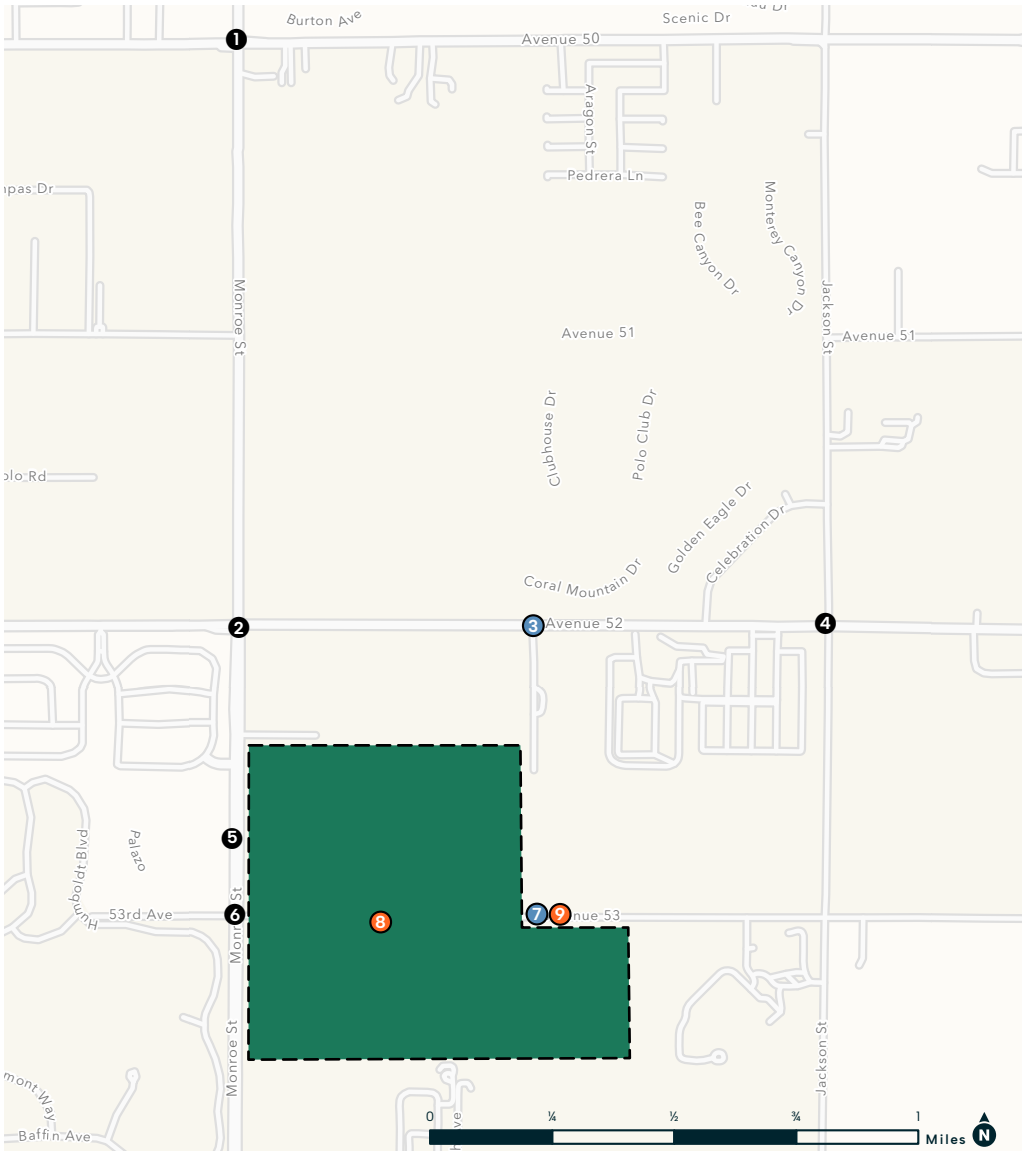
Some counts were collected outside typical Spring season, but the count data was reviewed against February count data and generally was found to be consistent and representative of the study area and surrounding land use context. The existing conditions peak hour turning movement counts are provided in **Appendix D**. Existing (2025) peak hour traffic volumes are provided in **Figure 3** along with existing lane configurations and traffic control.

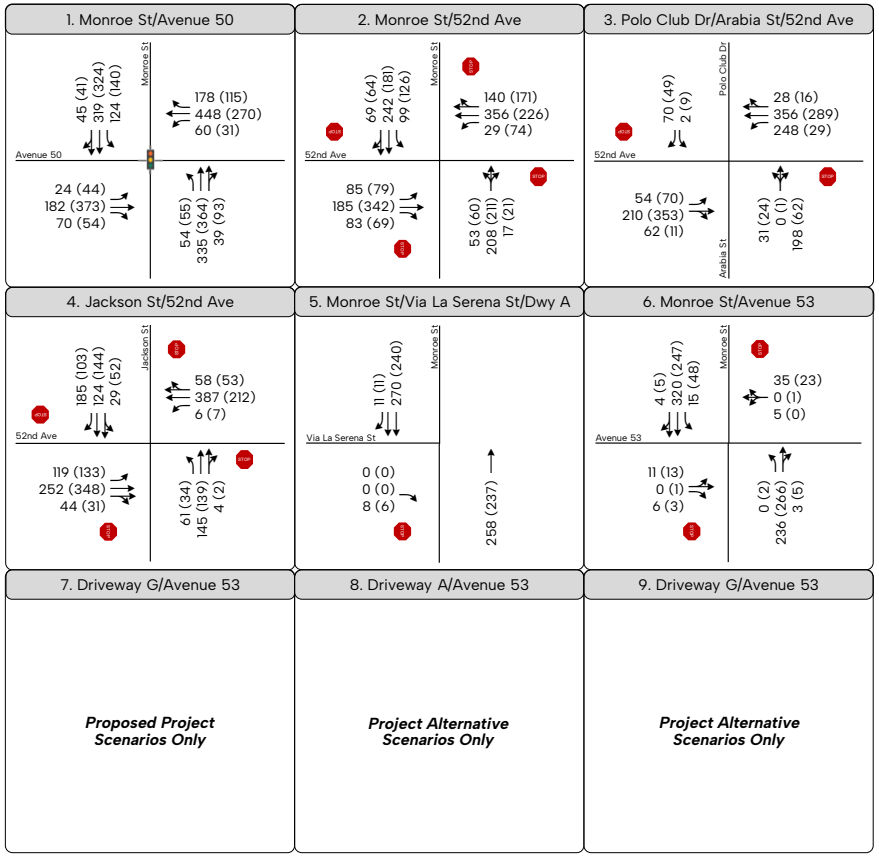
Fehr & Peers collected the following information during a field visit to the study area on May 22, 2025:

- Lane configurations
- Signal phasing
- Land uses in the study area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit service

Fehr & Peers requested and reviewed the following information from the City of Indio and Riverside County:

- Traffic signal timing information at all signalized intersections
- All pending and approved development projects within a five-mile radius of the Project (see **Appendix E**)





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

All Scenarios Study Intersections

Proposed Project Study Intersections

Project Alternative Study Intersections

FIGURE 3

Existing (2025)
Peak Hour Traffic Volumes and Lane Configurations

Fehr & Peers

3.6 Existing Year (2025) Intersections Operations

Existing lane configurations, signal timing, and traffic volumes were used to evaluate operations at the study intersections under peak hour conditions. The LOS results are summarized in **Table 2** and detailed LOS worksheets and 95th percentile queue lengths are provided in **Appendix F**. Intersection #2, Monroe Street and 52nd Avenue, currently operates deficiently in the PM peak hour. Intersection #3, Arabia Street and 52nd Avenue, operates deficiently in the AM peak hour. A signal warrant was run for Intersection #2 and #3 under existing conditions and neither met the signal warrant. Signal warrants for existing conditions are available in **Appendix G**.

Table 2. Existing Year (2025) Intersection Levels of Service

ID	Intersection	Control[2,3]	Peak Hour	LOS/Delay
1	Monroe Street and Avenue 50	Signalized	AM	B / 16.0
			PM	B / 15.6
2	Monroe Street and 52nd Avenue	AWSC	AM	C / 22.4
			PM	**E / 43.3**
3	Arabia Street and 52nd Avenue	SSSC	AM	**F / 56.1**
			PM	C / 21.5
4	Jackson Street and 52nd Avenue	AWSC[4]	AM	C / 19.6
			PM	C / 17.5
5	Monroe Street and Via La Serena Street (Driveway A[1])	SSSC	AM	A / 9.2
			PM	A / 9.1
6	Monroe Street and Avenue 53	SSSC	AM	B / 13.5
			PM	C / 15.2

Notes:

1. Project driveway does not currently exist and is relevant to the scenario listed only.
2. SSSC: Side-Street Stop Control.
3. AWSC: All-Way Stop Control.
4. The southbound approach was coded as a shared left/through lane, consistent with HCM 7th Edition guidance limiting AWSC analysis to three lanes per approach.

Source: Fehr & Peers, 2026.

4. Project Characteristics

This chapter provides an overview of the Project components and the Project's trip generation, distribution, and assignment characteristics for evaluation of the Project's effect on the surrounding roadway network. Traffic associated with the Project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the project site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

4.1 Project Trip Generation

Trip generation refers to the process of estimating the amount of vehicle traffic that would enter and exit a project. Estimates for the proposed Project were calculated for the weekday peak (one-hour) periods during the morning (AM) and evening (PM) commute when traffic volumes on the adjacent streets are typically the highest. Fehr & Peers used the *Trip Generation Manual, 12th Edition* (Institute of Transportation Engineers [ITE], 2025) to obtain trip rates for calculating the number of trips that the Project would generate on a typical weekday operation.

The Project is a proposed private residential community with 85 single-family residences and on-site private amenities, including a nine-hole golf course with a clubhouse, wellness center and spa, pools, racquet courts, and restaurants. The 85 units will be distributed across low-density residential, medium-density residential, and mixed-use planning areas; however, all will function as single-family residences.

The on-site private amenities are private, exclusively for resident use and use by members of the Madison Club Community located immediately west of the Project Site on the west side of Monroe Street. A golf course tunnel or bridge crossing Monroe Street will be constructed to provide a connection between the Ranch at Madison and Madison Club communities, and most trips between the Ranch at Madison and the Madison Club community will be by golf cart using this connection.

The on-site amenities will meet many of the day-to-day needs of residents, who are expected to remain on-site to a greater degree than would occur with a standard single-family residential community without these features. These resident use characteristics will function similarly to the Madison Club. As a result, the Project will generate fewer external trips by residents than a standard single-family residential project would. Approximately 151 employees will be associated with the golf course and other amenities.

Project Land Use Codes

The following Land Use Codes were identified to estimate trips that would be generated by the proposed Project.

- Single-Family Detached Housing (ITE Code, 210)
- Golf Course (ITE Code, 430)

As described above, the proposed homes will generate fewer trips than standard single-family homes as a result of the on-site amenities. For this reason, use of the standard Single Family Detached Housing is conservative.

The ITE Land Use Code is applicable to public golf courses. Because the proposed nine-hole golf course will be a private golf course, with use restricted to residents of the Ranch and Madison and members of the Madison, and their guests, a 50% reduction was applied to account for trips made by employees and guests using the golf course. As shown in **Table 4** below, with this 50% reduction, the estimate of trips for the golf course is 137 daily trips.

Because the other amenities proposed, including the wellness center and spa, pools, racquet courts, and restaurants will also be private facilities that will not generate additional vehicle trips, the 173 daily trips assumed for the private nine-hole golf course is a conservative assumption that accounts for the trips associated with the golf course and other amenity facilities within the project, including associated employee trips.

Trip Generation Rates

Table 3 identifies the trip generation rates for the Project and **Table 4** shows the associated daily and peak hour project trip generation.

Table 3. Trip Generation Rates

Land Use	ITE Land Use Code	Quantity	Unit	Daily Rate	AM Peak Hour			PM Peak Hour		
					In	Out	Rate	In	Out	Rate
Single Family Residential	210	85	DUs[1]	9.09	27%	73%	0.75	63%	37%	0.97
Golf Course	430	9	Holes	30.38	52%	48%	2.96	47%	53%	3.68

Note:
1. DUs = Dwelling Units.

Source: Trip Generation Manual 12th Edition (Institute of Transportation Engineers, 2025).

Table 4. Project Trip Generation

Land Use	ITE Land Use Code	Quantity	Units	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Single Family Residential	210	85	DUs[1]	773	17	47	64	52	30	82
Golf Course	430	9	Holes	273	14	13	27	16	17	33
Golf Course with Internalization Rate[2]				137	7	7	14	8	9	17
Weekday Total				**910**	**24**	**54**	**78**	**60**	**39**	**99**

Note:
1. DUs = Dwelling Units.
2. Reduction of 50% applied as the proposed golf course is a private facility.

Source: Trip Generation Manual 12th Edition (Institute of Transportation Engineers, 2025).

4.2 Project Trip Distribution

The Project trip distribution reflects the likely approach and departure routes to the Project site. The trip distributions for the Proposed Project are presented in **Figure 4**, which was approved by the County on October 23, 2025. Trip geographic distribution would be as follows: 55% north, 5% south,

10% east, and 30% west. Access to the Project site will be provided primarily from Monroe Street and Avenue 53. Project trips would utilize Monroe Street and Avenue 53 to access the Project, with most trips travelling to/from Highway 111 or I-10 via Monroe Street, Jackson Street, and 52nd Avenue.

Access to the Project is proposed via a signalized intersection at Monroe Street and Via La Serena Street (Driveway A) as the primary access point, and one full access street driveway on Avenue 53 at Driveway G. Monroe Street would represent 65% and Avenue 53 would represent 35% of entry/exit trip percentages for the Project. Arabia Street would represent an additional access route and is unique to the Proposed Project. Maintenance, back of house, construction, and secondary emergency access would be provided at Monroe Street and Driveway G, and off Avenue 53 and the easternmost Project driveway.

4.3 Project Trip Assignment

Project trip assignment refers to the specific route and roadway segments vehicles would take to access and leave the Project. Using the trip distribution percentages, Project trips were assigned to the roadway network as presented in **Figure 5** for the Proposed Project. The primary access point via the signalized intersection at Monroe Street and Via La Serena Street (Driveway A) serves the majority of Project trips. A raised median along Monroe Street across Avenue 53 directs the Carmela neighborhood to utilize Monroe Street and Via La Serena for access, which is reflected in the trip assignment.

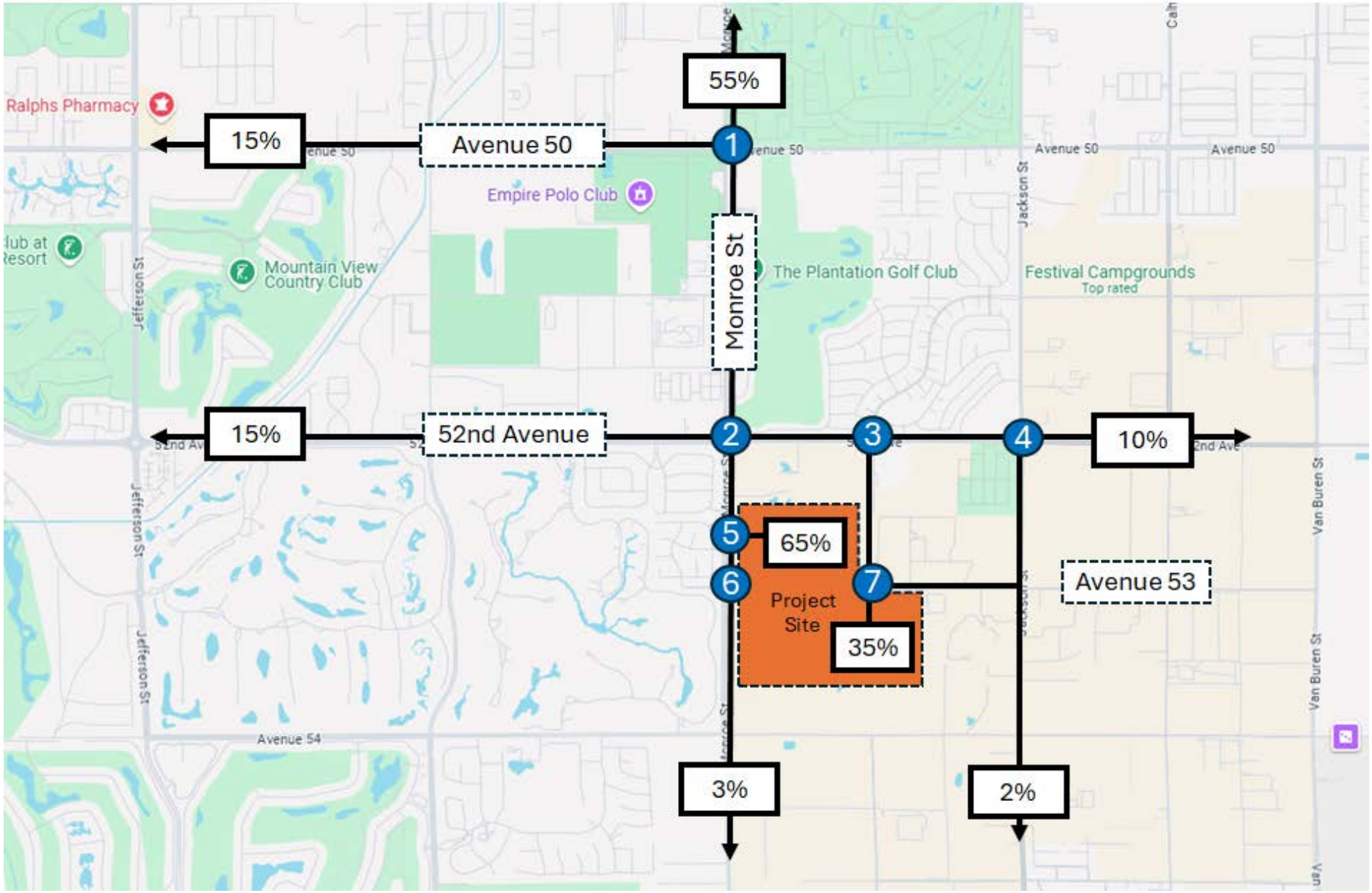
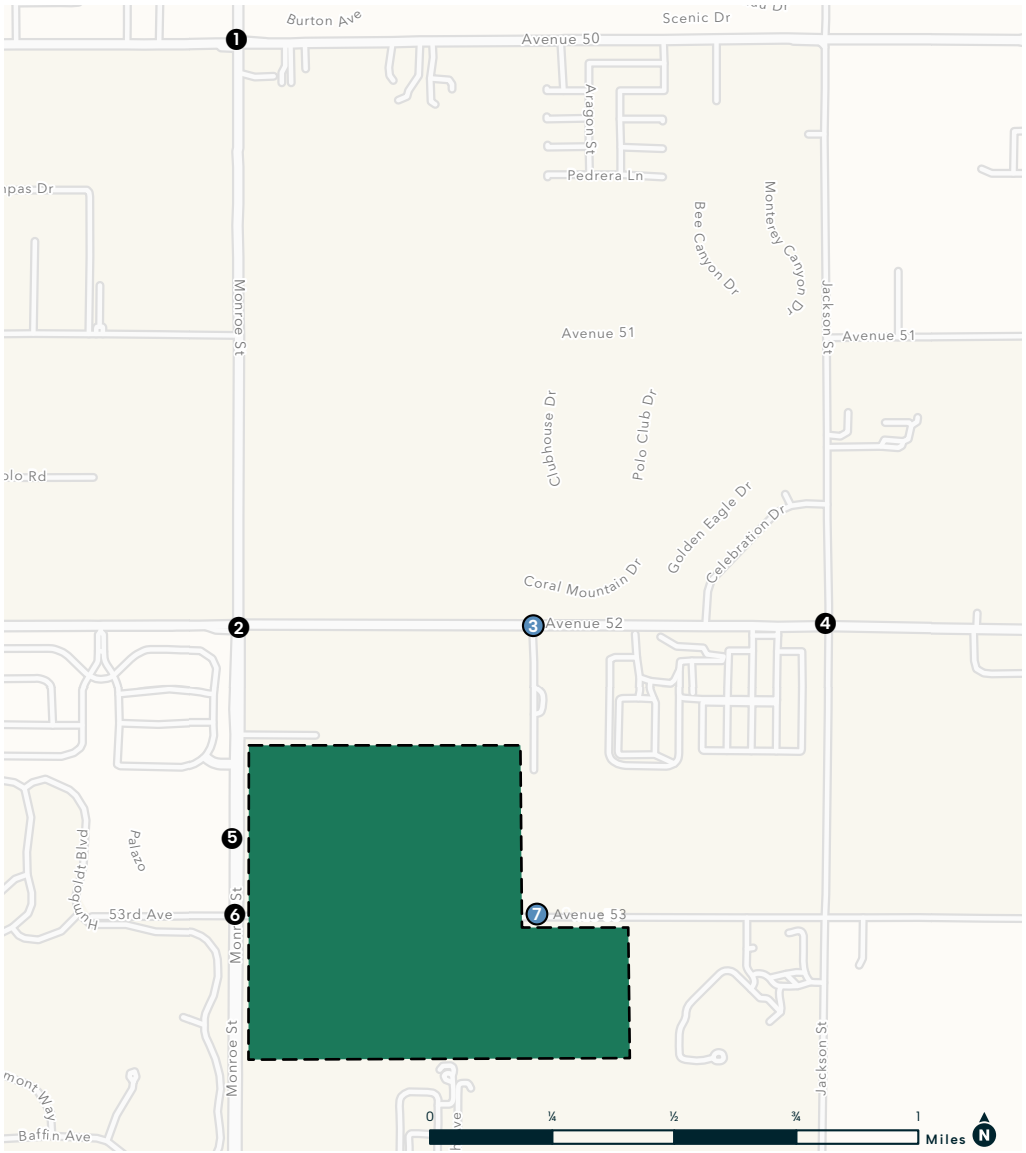
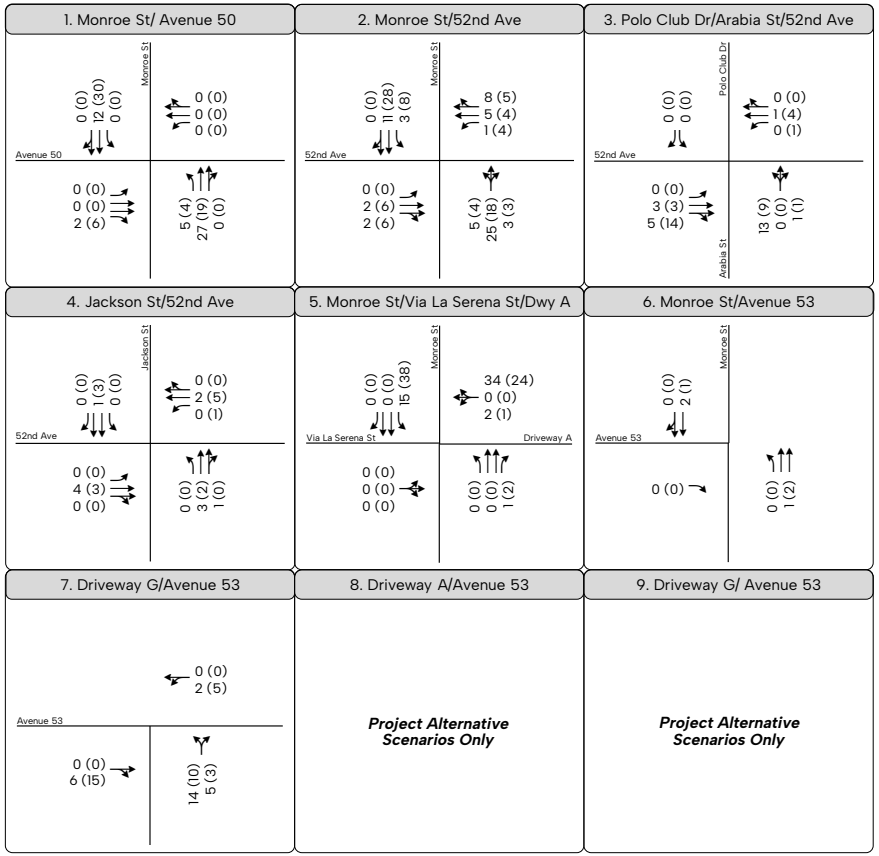


FIGURE 4

Proposed Project Trip Distribution





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

All Scenarios Study Intersections

Proposed Project Study Intersections

FIGURE 5

Proposed Project Trip Assignment

5. Local Transportation Study

This section presents the transportation operations analysis consistent with Riverside County's Guidelines. The operational analysis is intended to assess the potential effect of the Project on the surrounding roadway network. For the study, maintaining LOS C or better as the standard for intersection operations, consistent with the County's LOS standard for the Eastern Coachella Valley.

5.1 Opening Year (2030) Conditions

This section presents intersection operations under Opening Year (2030) Plus Project and Plus Project and Cumulative Project conditions; both of which are relative to the Proposed Project. Improvements are identified for deficient intersections.

Traffic Volume Development

Consistent with the County's Guidelines, an annual ambient growth rate was applied to existing traffic counts to forecast 2030 traffic volumes. An annual ambient growth rate of 2% was agreed upon in the scoping form (**Appendix A**).

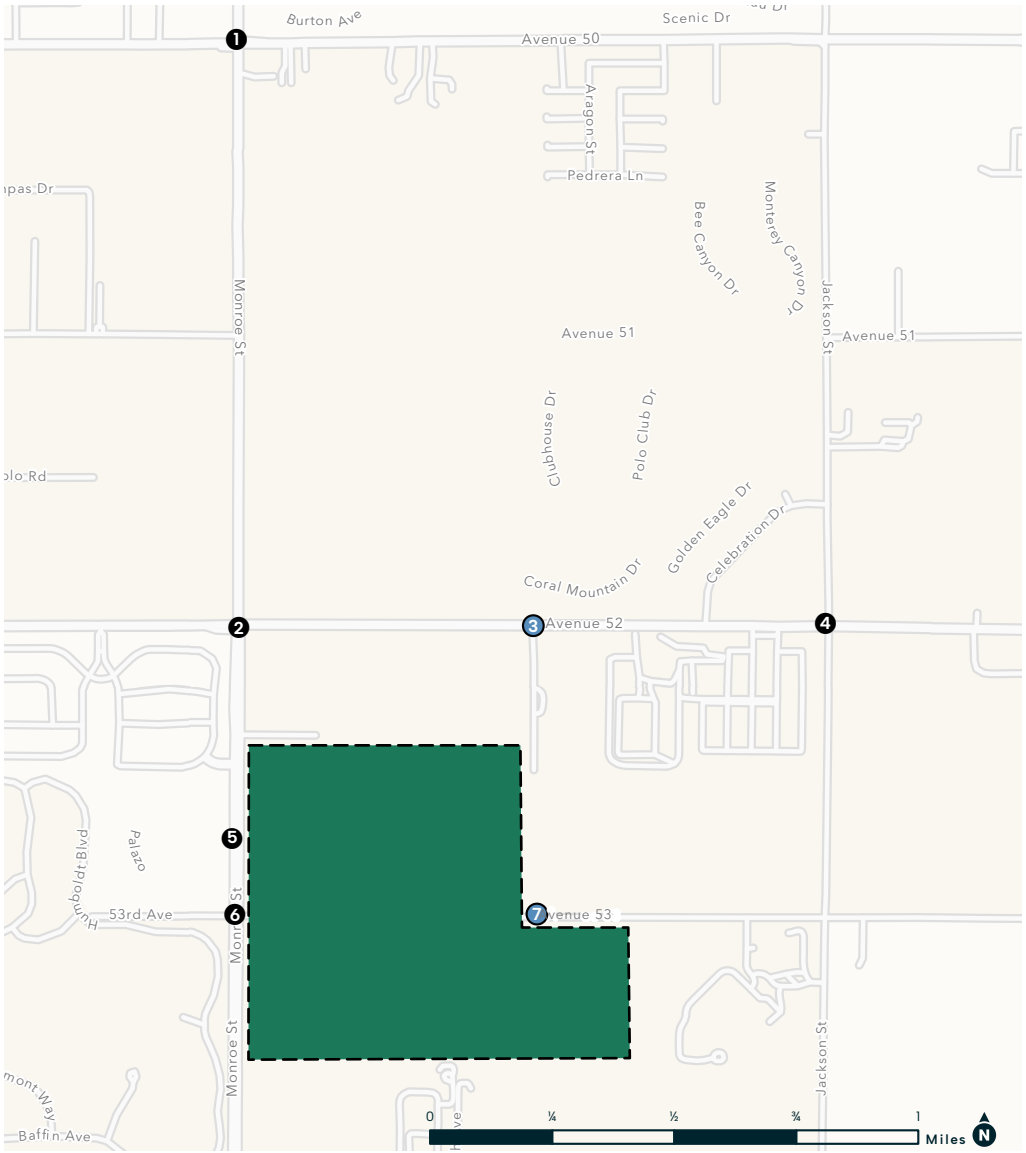
This scenario considers other approved projects, consistent with the guidance in Section 15125 (a)(1) of the CEQA Guidelines, which states that an EIR should describe physical environmental conditions as they exist at the time the notice of preparation for an EIR is published. The notice of preparation for the Ranch at Madison Specific Plan EIR was published in August 2025. Pending and approved development (cumulative) projects within a five-mile radius of the Project site that could influence travel in the study area were collected and assessed. Fehr & Peers coordinated with Riverside County to obtain a list of development projects for use in the TIA. The list is documented in **Appendix E**. All relevant projects provided were assumed to be in operation by 2030. *Trip Generation, 12th Edition* rates were applied to each project that was anticipated to affect peak hour intersection operations. The trip generation estimates for these projects are provided in **Appendix E**. The trips were assigned to the study area based on professional judgement and knowledge of the land uses and their typical peak hour travel patterns.

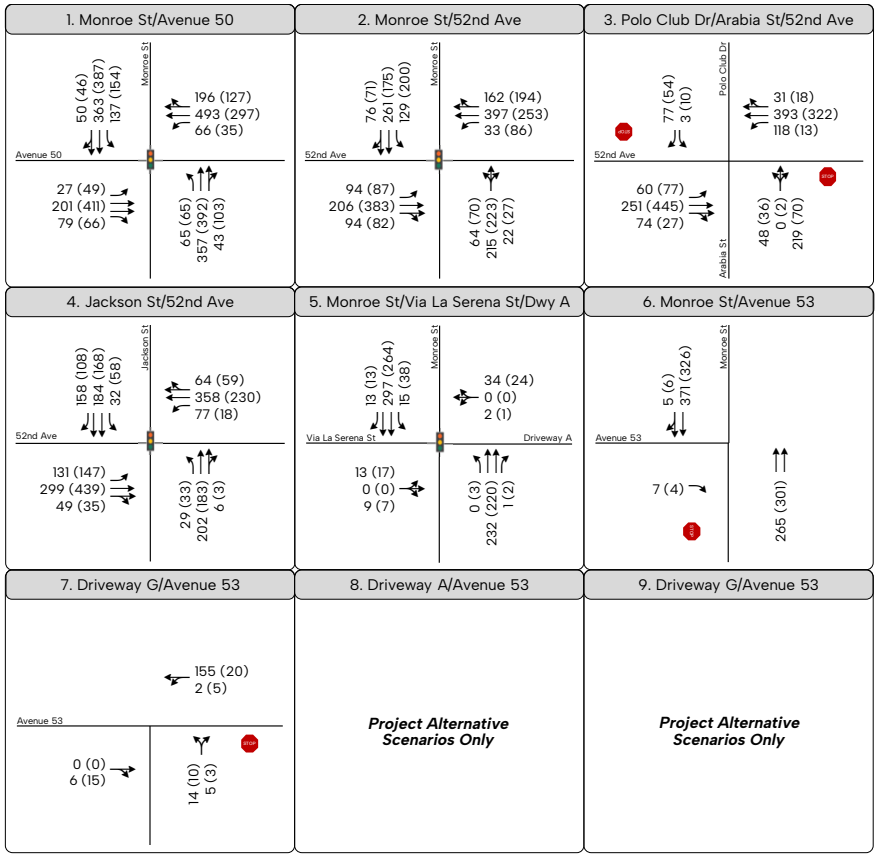
Project trips from **Figure 5** were added to Opening Year forecast to develop Opening Year (2030) Plus Project (Proposed Project). Intersection turning movement forecasts for Opening Year (2030) Plus Project (Proposed Project) are presented in **Figure 6**. Cumulative project trips were then added to develop Opening Year (2030) Plus Project and Cumulative Projects (Proposed Project) intersection turning movement forecasts, as presented in **Figure 7**. The cumulative project only volumes are shown in **Figure 8** and presented in **Appendix E.**

The County's Guidelines also state that the cumulative scenario may include projects that are proposed and in the review process, but not yet approved, consistent with the guidance in Section 15130 (b)(1) of the CEQA Guidelines which states that analysis of cumulative effects should consider either a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, or a list of past, present and probable future projects. The list of approved projects are "past" projects, and proposed projects in the County's review process, but not yet approved, represent "present" projects.

In April 2026, the owner of approximately 215 acres of property located east of the Project Site provided information to the County related to preliminary conceptual planning for a development

project on this property. A general description of several alternative mixes of land uses being under consideration was provided. A formal application for this project has not been submitted to the County and, for this reason, this potential future project is not in the County's review process at this time. While the County's Transportation Analysis Guidelines do not require that projects not submitted and in the County review process be considered in the cumulative scenario, the County is considering this as a "probable future" project in the local transportation analysis. A description of the uses assumed on this property for purposes of analysis is also provided in **Appendix J**. It was assumed that Calhoun Ranch would be fully built out by 2030 for the purposes of this analysis scenario.





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

All Scenarios Study Intersections

Proposed Project Study Intersections

FIGURE 6

Opening Year (2030) Plus Project (Proposed Project) Peak Hour Traffic Volumes and Lane Configurations

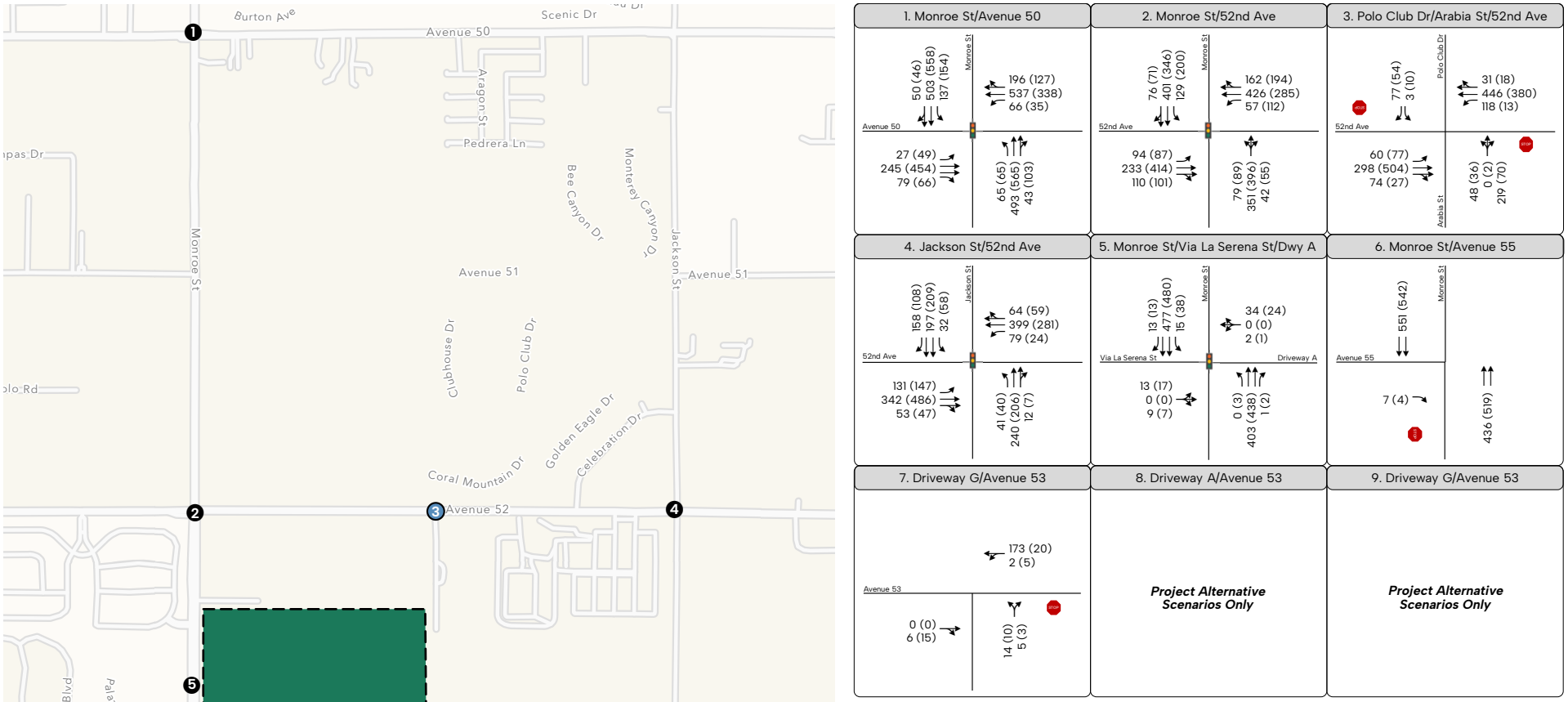
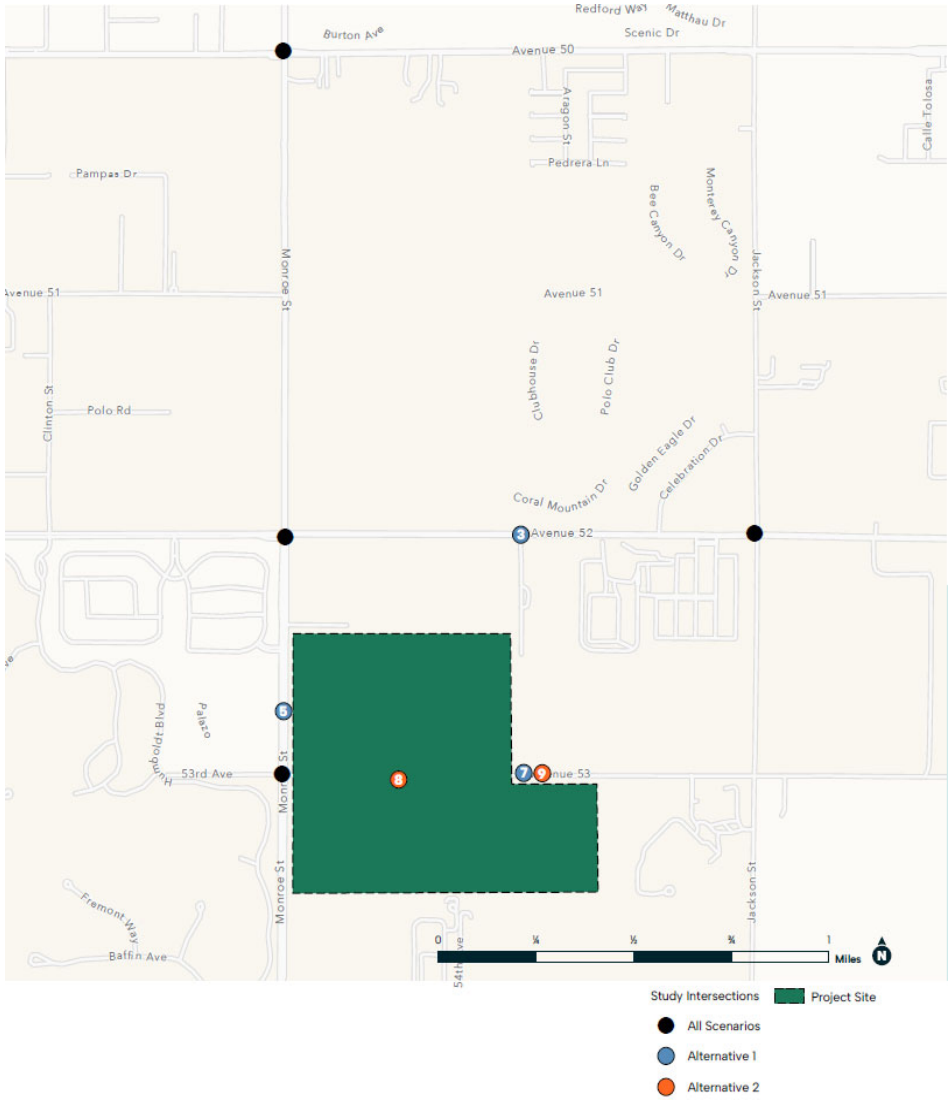


FIGURE 7

Opening Year (2030) Plus Project Plus Cumulative Projects (Proposed Project) Peak Hour Traffic Volumes and Lane Configurations



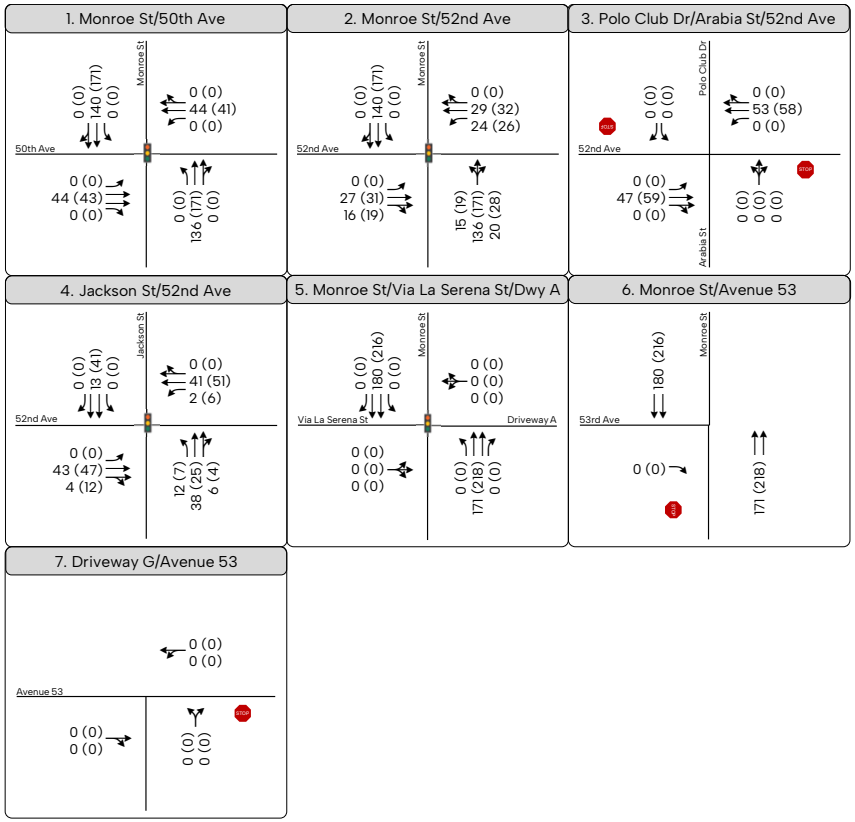


FIGURE 8

Opening Year (2030) Cumulative Projects Only
Peak Hour Traffic Volumes and Lane Configurations

Opening Year (2030) Proposed Project Intersection Operations

Opening Year (2030) intersection operations were evaluated using the HCM methodology detailed in Section 2.1. Opening year lane configurations and intersection control types changed as summarized below:

- The Project proposes to vacate Avenue 53 between Monroe Street and the eastern Project extent. Existing traffic volumes were redistributed to reflect this change.
- The Project will extend Arabia Street between 52nd Avenue and Avenue 53. As a result, existing traffic volumes were redistributed to reflect this change.
- Additional lanes and signals were added at select locations based on the Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) and City of Indio Capital Improvement Program (CIP), as listed below. The City of Indio was contacted to confirm the anticipated completion status of the roadway improvements listed below. Responses were provided by Donn Uyeno, Principal Civil Engineer, City of Indio Public Works Department, on June 24, 2026 (see **Appendix I**). All three improvements are anticipated to be completed by or near the 2030 horizon year, as discussed below.
    - RTP ID 3A07056 / City Project ST2004: Widen Avenue 50 from two to four lanes between Jefferson Street and the eastern City Limits east of Jackson Street (2030). The project is divided into two segments. Segment 1, between Jefferson Street and Madison Street, is at 100% design and construction is anticipated to begin in May 2027, with completion prior to 2030. Segment 2, between Madison Street and Botella Place (just west of Jackson Street), is currently at 65% design with construction anticipated to begin in 2028 and be completed in mid-2030. While this segment is not confirmed to be complete prior to the 2030 horizon year, it is included as an assumed improvement given that completion is anticipated to occur concurrent with the analysis year.
    - RTP ID 3A07052 / City Project ST2004: In the City of Indio, widen Avenue 50 from Monroe Street to Jackson Street from three to four lanes, including a center median/left turn lane, new sidewalk along the southside, and bike lanes along both sides (2030). This improvement is encompassed within ST2004 Segment 2 described above. Per the City of Indio, construction is anticipated to be completed in mid-2030 and is included as an assumed improvement on a conditional basis consistent with the discussion above.
    - RTP ID 3A07086 / City Project TS1901: In the City of Indio, widen Jackson Street from approximately 0.5 miles north of Avenue 50 to approximately 0.25 miles south of 52nd Avenue from three to four lanes, including sidewalk along the east side, bike lanes along both sides, and new traffic signals at Avenue 50, Avenue 51, and 52nd Avenue (2025). This improvement corresponds to Phase 2 of City Project TS1901, which is currently in the right-of-way acquisition phase with PS&E at 99% complete. Construction is anticipated to begin in late 2026 and be completed in spring 2028, prior to the 2030 horizon year.

Traffic signal timings, peak hour factors and heavy vehicle percentages were left unchanged from existing conditions.

Intersection operations under Opening Year (2030) Plus Project and Plus Project and Cumulative Projects conditions are presented in **Table 5**. Intersection LOS calculation worksheets and 95th percentile queues are provided in **Appendix F**.

Under the Plus Project scenario, the following intersections are forecasted to operate below LOS C:

- Intersection #3 (Arabia Street and 52nd Avenue) in the AM and PM Peak Hour

Under the Plus Projects and Cumulative Projects scenario the following intersections are forecasted to operate below LOS C:

- Intersection #3 (Arabia Street and 52nd Avenue) in the AM and PM Peak Hour

All other study intersections would operate at acceptable service levels of LOS C or better.

Table 5. Opening Year (2030) Proposed Project Intersection Levels of Service

ID	Intersection	Control[1,2,3]	Peak Hour	Opening Year with Project		Opening Year with Project and Cumulative Projects	
				LOS/Delay	Side Street Stop Worst Movement	LOS/Delay	Side Street Stop Worst Movement
1	Monroe Street and Avenue 50	Signalized	AM	B / 15.7		B / 17.2	
			PM	B / 14.9		B / 16.3	
2	Monroe Street and 52nd Avenue	Signalized	AM	A / 7.3		A / 8.9	
			PM	A / 7.7		B / 10.9	
3	Arabia Street and 52nd Avenue	SSSC	AM	**F / 50.5**	NB	**F / 78.2**	NB
			PM	**D / 34.9**	NB	**F / 50.2**	NB
4	Jackson Street and 52nd Avenue	Signalized	AM	B / 15.8		B / 16.4	
			PM	B / 15.5		B / 16.4	
5	Monroe Street and Via La Serena Street (Driveway A)	Signalized	AM	A / 4.1	EB	A / 4.0	WB
			PM	A / 4.0	WB	A / 3.9	WB
6	Monroe Street and Avenue 53	SSSC	AM	A / 9.6	EB	B / 10.1	EB
			PM	A / 9.5	EB	B / 10.3	EB
7	Driveway G and Avenue 53 (Proposed Project)	SSSC	AM	A / 9.2	NB	A / 9.3	NB
			PM	A / 8.7	NB	A / 8.7	NB

Note:
1. AWSC: All-Way Stop Control.
2. SSSC: Side-Street Stop Control.
3. Deficient intersection operations are noted in **bold text** (below LOS C).

Source: Fehr & Peers, 2026.

As referenced in **Appendix J**, the Calhoun Ranch Cumulative Scenario Assessment reached generally the same operational conclusions and required generally the same improvements to reach acceptable standards. Adding Calhoun Ranch trips to the Opening Year (2030) Plus Project and Cumulative Projects scenario increases delay, most notably at Intersection #3 (52nd Avenue and Arabia Street), but with the improvements already identified in this report in place, all study intersections continue to operate at acceptable levels and no additional improvements are required.

Queueing Assessment Summary

Intersection turn-movement queueing was evaluated at the study intersections (signalized and all-way stop controlled) using HCM 7th Edition methodologies. Storage capacities were compared

against 95th percentile queue estimates prepared using the Synchro 12 software. Excessive queueing is defined as a 95th percentile queue that exceeds the available turn-bay storage. Under all scenarios and both peak hours, for the Proposed Project, the 95th percentile queues are contained within the available storage, and no excessive queueing was identified. A summary is provided in **Table 6**, and detailed queueing worksheets are provided in **Appendix F**.

Table 6. Proposed Project Intersection Queuing Assessment Summary

ID	Intersection	OY (2030) +Project	OY (2030) +Project w/ Imp.	OY (2030) +Project +Cumulative	OY (2030) +Project +Cumulative w/ Imp.
1	Monroe St & 50th Ave	●	●	●	●
2	Monroe St & 52nd Ave	●	●	●	●
3	Arabia St & 52nd Ave	N/A	●	N/A	●
4	Jackson St & 52nd Ave	●	●	●	●
5	Monroe St & Driveway A	●	●	●	●

Source: Fehr & Peers 2026, Synchro 12 (HCM 7th Edition). ● represents "No Excessive Queue" – as documented in Appendix F.

Opening Year (2030) Proposed Project Improvements

Feasible improvements were identified to improve intersection operations at deficient intersections to an acceptable LOS (LOS C or better).

At Intersection #3, 52nd Avenue at Arabia Street, a signal warrant analysis was also conducted and the warrant was met in the AM Peak Hour for Opening Year (2030) Plus Project Plus Cumulative Projects Scenario. Ultimately, improvements to this intersection were needed and the installation of a traffic signal improves the intersection to operate above the LOS C threshold. The Applicant will fund 100% of the cost of the traffic signal improvement at this intersection and, for this reason, no "fair share" calculation is provided for this applicant funded improvement.

Table 7 compares intersection operations without and with improvements under improvements.

Table 7. Opening Year (2030) Proposed Project with Improvements Levels of Service

Intersection	Peak Hour	Opening Year (2030) Plus Project		Opening Year (2030) Plus Project and Cumulative Projects		Opening Year (2030) Plus Project w/ Improvement		Opening Year (2030) Plus Project and Cumulative w/ Improvement		Fair Share %
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	
3. Arabia St and 52nd Avenue	AM	**F**	**50.5**	**F**	**78.2**	A	7.8	A	8.0	20.0%
	PM	**D**	**34.9**	**F**	**50.2**	A	6.0	A	6.0	11.5%

Notes:
1. Percent of fair share at the intersection is calculated using peak hour volumes.
2. Potentially deficient intersection operations are noted in **bold text.**

Source: Fehr & Peers, 2026.

5.2 Proposed Project Access and Circulation Considerations

The Proposed Project would result in access and circulation differences from existing conditions relative to the proposed project site plan (**Figure 1**) relevant specifically to Avenue 53, Arabia Street, and Monroe Street travel patterns. The discussion below outlines the site access, emergency access, non-automotive access, and on-site circulation considerations.

Roadway Access: Avenue 53 Roadway Vacation, Arabia Street Extension, Monroe Street

The Proposed Project would result in the vacation of the segment of Avenue 53 between Monroe Street through the Project site. The total daily volumes (<500 trips) and AM (25 trips) and PM (23 trips) peak hours volumes on Avenue 53 were shown to be low, resulting in no impact to overall travel patterns with the vacation. The median on Monroe Street will also be extended further south past where Avenue 53 and Monroe Street currently intersect. As a result, the Avenue 53 and Monroe Street intersection will become right-in, right-out access only from the west leg of Avenue 53.

Additional access will be provided via the extension of Arabia Street to Avenue 53 and improvement of Arabia Street. The proposed improvements to Arabia Street were designed in coordination with Coachella Valley Unified School District (CVUSD) facilities staff and the Cahuilla Desert Academy School, located south of Avenue 53 and east of Arabia Street. The proposed roadway sections for Arabia Street, included in the *Ranch at Madison Specific Plan*, would follow the County of Riverside Enhanced Local Street Adjacent to School or Park – Standard 104 (66-foot right of way).

The Arabia Street extension will provide additional roadway access for emergency response to the Project Site and other nearby properties as well as circulation enhancements for the Cahuilla Desert Academy School. The opening year (2030) plus project plus cumulative volumes along Arabia Street are projected to be 459 AM peak hour trips and 148 PM peak hour trips; turning movement projections can be found in **Figure 7**.

The Conceptual design for Arabia Street along the school frontage were developed after conducting field observation of morning and afternoon pick up and drop off conditions and a detailed review of

existing conditions. Existing school site access and circulation conditions were similar to many other schools in the region, with congestion and queues that occur typically within the half hour before and after school start/dismissal. These conditions are complicated by the single access to the school site off Arabia Street (the Avenue 52 driveway is an exit only), the overlapping bus and passenger vehicle queueing during drop off and pick up, and the fact Arabia Street is currently a cul-de-sac, which further constrains circulation options as shown in **Appendix H**.

During development of the conceptual design for improvements to Arabia Street, that many of the access and circulation challenges associated with the school site would be improved with the extension and widening of Arabia Street to provide school traffic with a secondary approach to queue for student pick-up/drop-off. The project proposes additional improvements that would further enhance the access and circulation to the school site, including, but are not limited to, queueing lanes for pick-up/drop-off, physical barriers to better direct circulation for pick-up/drop-off, added sidewalks and parking, signage and markings. The proposed conceptual design is shown in **Appendix H**.

52nd and Arabia Street Intersection Improvements

At 52nd Avenue and Arabia Street, an intersection control warrant analysis was conducted. The peak hour signal warrant was met only in the AM peak hour under the Opening Year (2030) Plus Project Plus Cumulative Projects scenario. A traffic signal is recommended at this intersection to maintain the County's LOS C or better standard, which cannot be achieved with all-way stop control under the applicable conditions. Recommended lane geometry and storage lengths for this signalized intersection are provided in **Appendix K** and are informed by the queuing assessment and storage length summary in **Appendix F**.

Driveway Access

Project driveways access is proposed on Monroe Street and Avenue 53. The primary entry/exit driveway is Monroe Street and Via La Serena Street/Drive A and would be controlled by a traffic signal installed as part of the Project. Via La Serena currently provides access to the Carmela neighborhood in the City of La Quinta on the west side of Monroe Street.

The secondary entry/exit at Avenue 53 and Drive G would also provide full access for vehicles. A community maintenance entry/exit access is provided at Avenue 53 and Drive H, which is intended for exclusive use by maintenance/employees/emergency only. Monroe Street and Drive C would operate as an emergency access point exclusively. All driveways will be gated, as detailed in the *Project Specific Plan, Section 2.2.3*.

A preliminary review of typical design and engineering access and circulation considerations for these proposed access points is provided below.

Primary Entry/Exit: Monroe Street and Via La Serena Street (Drive A)

The primary Project entry and exit driveway is Monroe Street and Via La Serena Street/Drive A and would provide signalized access for vehicles at the direction of the County to address intersection spacing standards associated with the roadway classification for Monroe Street. The extension of the median in Monroe Street across Avenue 53 is also proposed. Right-in/right-out access for the adjacent side streets would be maintained. The signalized intersection would provide a median cut for southbound left turning movements and a northbound right turn pocket into Drive A.

Recommended storage lengths for these movements are identified in the queuing assessment provided in **Appendix F**. Recommended lane geometry and storage length exhibits are provided in **Appendix K**. Sight distance along Monroe Street is acceptable given the straight and flat roadway alignment, assuming medians and parkways are maintained clear of obstructions. The Drive A cross section would comply with emergency access standards (i.e. 2022 California Fire Code), and final design would be subject to County review as a condition of approval.

Secondary Entry/Exit: Avenue 53 and Drive G

This intersection would operate with unsignalized full access at an acceptable LOS and would not meet traffic signal warrants. The driveway would be accessed via a minor access roadway and built to the respective County design standard. The roadways would operate with low vehicular volumes, where the rate of in and outbound traffic would not warrant a signal. The speed limits need to be appropriately set on approach to the Project to meet design standards (assumed to be 25 MPH for a local road) and ensure proper function of the driveway. Westbound sight distance would need to be maintained to account for the curvature of the southbound approach; the westbound sight distance is acceptable assuming a clear line of sight is maintained since the roadway is straight and flat. There are no concerns for emergency access, as the cross section would comply with access standards.

Emergency Vehicle Access

Emergency access for the Project was reviewed for consistency with the 2022 California Fire Code, which states that:

- Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.
- Fire apparatus access roads shall not be less than 24 feet in width.
- Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

The Project provides four emergency access points to the site along Monroe Street (Driveway A and Driveway D), Avenue 53 (Driveway G and Driveway H), and additional roadway access via Arabia Street. This provides adequate and distributed emergency vehicle access to the Project site. County engineering staff will review final Project designs to ensure compliance with the Fire Code.

In addition, the potential effect of the proposed vacation of Avenue 53 within the Project Site on emergency response from the three closest local fire stations to the Project Site and properties east of the Project Site with access to Avenue 53 in site was evaluated.

Fire access travel times were calculated to the Project Site and nearby properties based on route distances measured from the three closest fire stations to the proposed Project Site and corresponding emergency response speeds. The route distances and travel times from each station to the access destination are as follows:

Scenario 1 – Access to the Project directly (**Figure 9**):

- Station 70 (Via La Serena Street) at 1.7 miles and 2.28 minutes
- Station 86 at 3.4 miles and 4.53 minutes
- Station 79 at 3.7 miles and 4.99 minutes

Scenario 2 – Access to properties east of the Project with vacation of Avenue 53 within the Project Site and provision of alternative access via Arabia Street (**Figure 10**):

- Station 70 alternative route (Arabia Street extension) at 2.8 miles and 3.75 minutes
- Station 86 at 3.4 miles and 4.53 minutes
- Station 79 at 3.7 miles and 4.99 minutes

These distances and times yield an average travel speed of approximately 44.7 miles per hour across all routes, which is the assumed speed of travel for the three station routes identified by Riverside County Fire. This average speed is consistent with emergency vehicle response on arterial roadways with posted speed limits of around 50 miles per hour, flat terrain, and low traffic volume conditions typical of the Project vicinity.

Based on the calculated travel times, the nearest fire station (Station 70) under Scenario 1 would reach the Project Site in approximately 2 minutes 17 seconds (2.28 minutes) through Monroe Street and Via La Serena Street/Drive A intersection. Under Scenario 2, if Avenue 53 were closed due to the Project, response times to properties east of the Project Site would increase. However, under Scenario 2, the alternative route for Station 70 via Monroe Street, 52nd Street and the Arabia Street extension, would reach the Project Site in approximately 3 minutes and 45 seconds (3.75 minutes). Both routes from Station 70 are within the typical best practice standard, the National Fire Protection Association (NFPA) 1710 Section 4.1.2.1, which establishes a travel time of 240 seconds (4.00 minutes) for the arrival of the first engine company at a fire suppression incident.

Stations 86 and 79, located 3.4 miles and 3.7 miles from the project site respectively, exceed the 4-minute travel time benchmark. Their travel routes to the Project Site utilize arterial roadways that are not altered by the proposed access configuration, and the proposed extension of Arabia Street would provide an additional access route from Stations 79 and 86 to the Project site and adjacent properties. Therefore, the Project would not increase response times from these stations.

The Project Site, and properties located to the east on Avenue 53, would be adequately served by Station 70 within the typical best practice response time standard under both scenarios and does not degrade response times for Scenario 1; under Scenario 2 the response time would increase, but would still be under the NFPA response time standard.

Pedestrian Access

The Project proposes sidewalks along its frontage on Monroe Street (5-feet in width), Avenue 53 (5-feet in width), and Arabia Street (6-feet in width). Additionally, the project proposed to develop an 8-foot-wide parkway-adjacent trail along the eastern side of Monroe Avenue. The sidewalk addition along Arabia Street closes a gap in sidewalk coverage, including areas fronting Cahuilla Desert Academy. Sidewalks along Monroe Street and Avenue 53 add to the network for pedestrians as mentioned above, but do not close gaps.

Bicycle Access

The Project enhances bicycle access within the study area by adding buffered Class II bike lane (6-foot bike lane and 4-foot buffer) along the frontage of Monroe Street, where currently none exist aside from on the west side of the roadway. These improvements would connect to the existing network along Monroe Street north of the Project, and connect to existing bicycle facilities along 52nd Avenue, east and west of Monroe Street. Further connections would be made to existing bicycle

facilities along Avenue 54 west of Monroe Street. These improvements would support multimodal goals across jurisdictions.

On Site Circulation

On-site circulation is provided by an internal system of two-way roadways that provide access from the driveways to dedicated parking spaces and the residential/recreational areas. Residents and guests can access the site at any of the two entry/exit driveways. Vehicular circulation is detailed within the *Project Specific Plan, Section 2.2 and Figure 2-2*. Internal non-vehicular circulation is detailed within the *Project Specific Plan, Section 2.2.5 and Figure 2-4*.

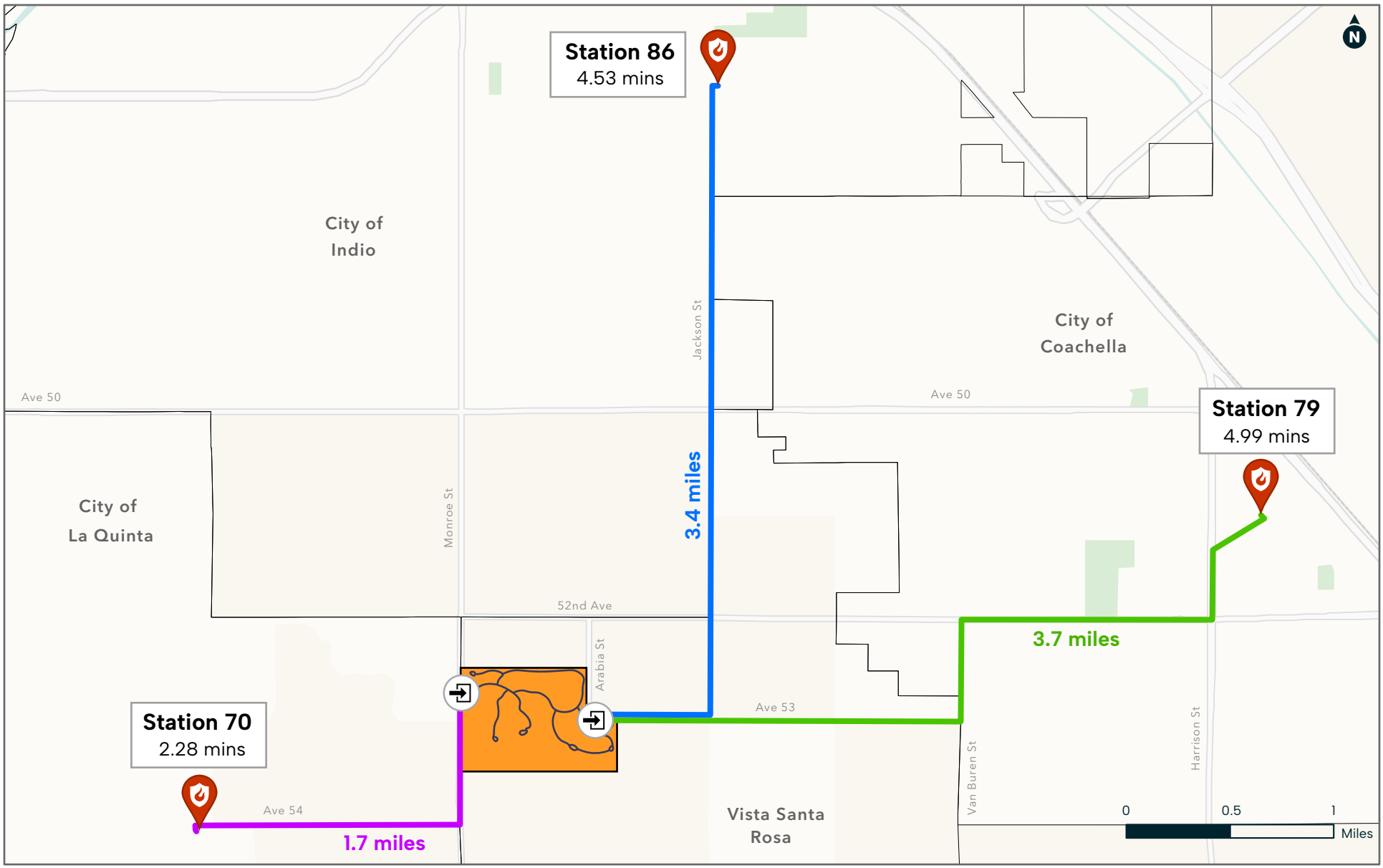


Figure 9

Fire Station Access

Scenario Route 1: Emergency Access

Station 86 route
Station 70 route
Station 79 route
Project Access points
Fire Stations
Project site with roads
Cities

Sources: Roads & Cities: Tigerline Shapefiles; Fire Stations: Riverside County Fire Dept. (RVCfire.org)

Access to the Project directly

Fehr & Peers

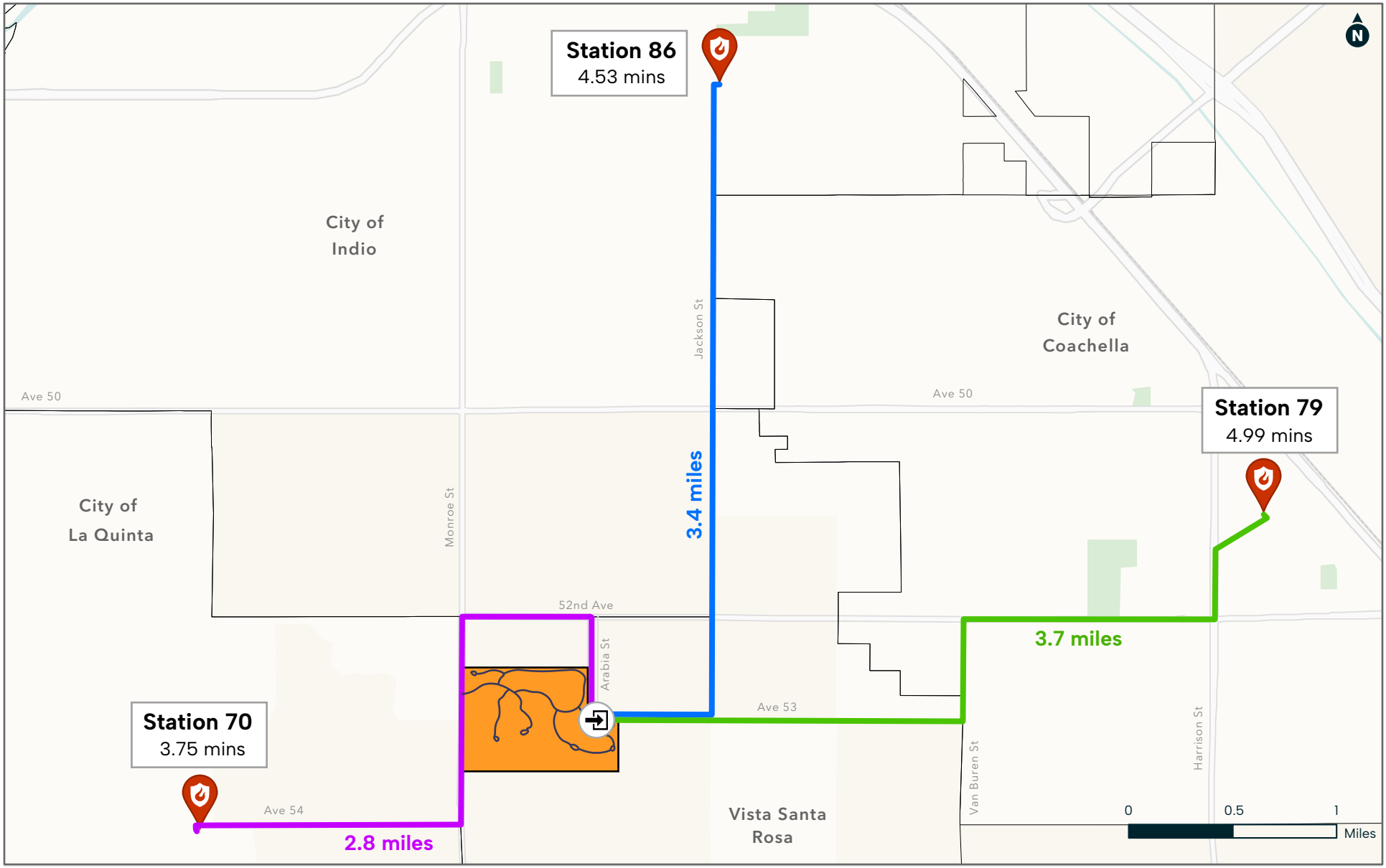


Figure 10

Fire Station Access

Scenario Route 2: Emergency Access

Station 86 route
Station 70 route
Station 79 route
Access destination
Fire Stations
Project site with roads
Cities

Sources: Roads & Cities: Tigerline Shapefiles; Fire Stations: Riverside County Fire Dept. (RVCfire.org)

Access to properties east of the Project, due to closure of Avenue 53 in site

Fehr & Peers

6. Project Alternative

Consistent with the approved Scoping Agreement (**Appendix A**), a Project Alternative was assessed for transportation operations analysis consistent with Riverside County's Guidelines. The characteristics of the alternative are discussed below.

One intersection, Monroe Street and Avenue 53, is forecasted to operate at less than the County's acceptable LOS of LOS C or better. Improvements identified to improve the LOS of this intersection to an acceptable LOS include restriping of the west leg to provide a dedicated eastbound left-turn lane and a shared eastbound through/right lane, replacing the previous configuration of a shared EBL/T and EBR lane. The Project's fair share financial contribution towards the cost of these improvements is identified.

6.1 Project Alternative Description

The Project Alternative would not vacate Avenue 53 and would not extend Arabia Street, with Avenue 53 going through the Project site. Access to and from the Project site for the Project Alternative would be provided via two proposed driveways to the south of Avenue 53. Both driveways would be side street stop control (SSSC). **Figure A** shows the proposed site plan for the Project Alternative; note the cumulative Project components (number of dwelling units and golf course holes) would remain the same as the Proposed Project (Section 1), but would have a different roadway, access, and configuration relative to the alternative roadway circulation where Avenue 53 between the Project Site would functionally remain and Arabia Street would not extend to Avenue 53 from 52nd Avenue.

6.2 Study Area

The study area was selected based on trip generation and distribution estimates and consists of intersections where more than 50 peak hour trips are likely to be added as a result of the Project. **Figure B** shows the Project Alternative study area. Fehr & Peers evaluated operations at the following study intersections for the Project Alternative:

- Monroe Street and Avenue 50
- Monroe Street and 52nd Avenue
- Jackson Street and 52nd Avenue
- Monroe Street and Via La Serena Street
- Monroe Street and Avenue 53
- Driveway A and Avenue 53
- Driveway G and Avenue 53

6.3 Analysis Methodology

Fehr & Peers studied the AM and PM peak hour LOS at the identified study intersections for the following scenarios:

- Opening Year (2030) Plus Project Conditions (Project Alternative): Background traffic volumes during the Project's opening year with traffic volumes generated by the Project. The opening year volumes were developed by applying an ambient growth rate of 2% to the Existing (2025) traffic volumes.

- Opening Year (2030) Plus Project Plus Cumulative Projects Conditions (Project Alternative): Opening Year Plus Project traffic volumes plus traffic generated by cumulative projects within a five-mile radius of the Project.

The same intersection analysis methodology was used, as listed in Section 2. The same existing year traffic volumes and intersection operations apply to the Project Alternative, which are listed in Section 3.

6.4 Project Characteristics

Trip Generation

The same project trip generation applies to the Project Alternative shown in Section 4.1.

Trip Distribution

The Project Alternative trip distribution reflects the likely approach and departure routes to the Project site. The trip distributions for the Project Alternative is presented in **Figure C** and were approved by the County on October 23, 2025. Trip geographic distribution would be as follows: 55% north, 5% south, 10% east, and 30% west. Access to the Project site will be provided primarily from Monroe Street and Avenue 53. Project trips would utilize Monroe Street and Avenue 53 to access the Project, with most trips travelling to/from Highway 111 or I-10 via Monroe Street, Jackson Street, and 52nd Avenue.

For the Project Alternative, there are two total Project driveways proposed, both along Avenue 53. The western driveway on Avenue 53 would represent 65% and eastern driveway on Avenue 53 would represent 35% of entry/exit trip percentages for the Project.

Trip Assignment

Project Alternative trip assignment refers to the specific route and roadway segments vehicles would take to access and leave the Project under the alternative. Using the trip distribution percentages, Project Alternative trips were assigned to the roadway network as presented in **Figure D** for Project Alternative.

6.5 Local Transportation Study

This section presents the transportation operations analysis consistent with Riverside County's Guidelines. The operational analysis is intended to assess the potential effect of the Project Alternative on the surrounding roadway network. For the study, maintaining LOS C or better as the standard for intersection operations, consistent with the County's LOS standard for the eastern Coachella Valley.

Opening Year (2030) Conditions

This section presents intersection operations under Opening Year (2030) Plus Project and Plus Project and Cumulative Project conditions; both of which are relative to the Project Alternative. Improvements are identified for the deficient intersection.

Traffic Volume Development

Consistent with the County's Guidelines, an annual ambient growth rate was applied to existing traffic counts to forecast 2030 traffic volumes. An annual ambient growth rate of 2% was agreed upon in the scoping form (**Appendix A**). Pending and approved development (cumulative) projects within a five-mile radius of the Project site that could influence travel in the study area were collected and assessed. Fehr & Peers coordinated with Riverside County to obtain a list of development projects for use in the TIA. The list is documented in **Appendix E**. All relevant projects provided were assumed to be in operation by 2030. *Trip Generation, 12th Edition* rates were applied to each project that was anticipated to affect peak hour intersection operations. The trip generation estimates for these projects are provided in **Appendix E**. The trips were assigned to the study area based on professional judgement and knowledge of the land uses and their typical peak hour travel patterns.

Project trips from **Figure D** were added to Opening Year forecast to develop Opening Year (2030) Plus Project (Project Alternative). Intersection turning movement forecasts for Opening Year (2030) Plus Project (Project Alternative) are presented in **Figure E**. Cumulative project trips were then added to develop Opening Year (2030) Plus Project and Cumulative Projects (Project Alternative) intersection turning movement forecasts, as presented in **Figure F**. The cumulative project only volumes are shown in **Figure G** and are listed in **Appendix E**.

Opening Year (2030) Project Alternative Intersection Operations

Opening Year (2030) intersection operations were evaluated using the HCM methodology detailed in Section 2.1. Opening year lane configurations and intersection control types changed as summarized below:

- The Project alternative proposes Avenue 53 would be remain, bisecting the site plan.
- Arabia Street is thus proposed to remain in the current configuration.
- Additional lanes and signals were added at select locations based on the Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) and City of Indio Capital Improvement Program (CIP), as listed below. The City of Indio was contacted to confirm the anticipated completion status of the roadway improvements listed below. Responses were provided by Donn Uyeno, Principal Civil Engineer, City of Indio Public Works Department, on June 24, 2026 (see Appendix I). All three improvements are anticipated to be completed by or near the 2030 horizon year, as discussed below.
    - RTP ID 3A07056 / City Project ST2004: Widen Avenue 50 from two to four lanes between Jefferson Street and the eastern City Limits east of Jackson Street (2030). The project is divided into two segments. Segment 1, between Jefferson Street and Madison Street, is at 100% design and construction is anticipated to begin in May 2027, with completion prior to 2030. Segment 2, between Madison Street and Botella Place (just west of Jackson Street), is currently at 65% design with construction anticipated to begin in 2028 and be completed in mid-2030. While this segment is not confirmed to be complete prior to the 2030 horizon year, it is included as an assumed improvement given that completion is anticipated to occur concurrent with the analysis year.
    - RTP ID 3A07052 / City Project ST2004: In the City of Indio, widen Avenue 50 from Monroe Street to Jackson Street from three to four lanes, including a center median/left turn lane, new sidewalk along the southside, and bike lanes along both sides (2030). This improvement is encompassed within ST2004 Segment 2 described above. Per the City of Indio, construction is anticipated to be completed in mid-2030 and is included as an assumed improvement on a conditional basis consistent with the discussion above.

- RTP ID 3A07086 / City Project TS1901: In the City of Indio, widen Jackson Street from approximately 0.5 miles north of Avenue 50 to approximately 0.25 miles south of 52nd Avenue from three to four lanes, including sidewalk along the east side, bike lanes along both sides, and new traffic signals at Avenue 50, Avenue 51, and 52nd Avenue (2025). This improvement corresponds to Phase 2 of City Project TS1901, which is currently in the right-of-way acquisition phase with PS&E at 99% complete. Construction is anticipated to begin in late 2026 and be completed in spring 2028, prior to the 2030 horizon year.

Intersection operations under Opening Year (2030) Plus Project and Plus Project and Cumulative Projects conditions are presented in **Table A**. Intersection LOS calculation worksheets and 95th percentile queues are provided in **Appendix F**.

Under the Plus Projects and Cumulative Projects scenario the following intersections are forecasted to operate deficiently (below LOS C):

- Intersection #6 (Monroe Street and Avenue 53) in the PM peak hour

All other study intersections would operate at acceptable service levels of LOS C or better.

Table A. Opening Year (2030) Project Alternative Intersection Levels of Service

ID	Intersection	Control[1,2,3]	Peak Hour	Opening Year with Project		Opening Year with Project and Cumulative Projects	
				LOS/Delay	Side Street Stop Worst Movement	LOS/Delay	Side Street Stop Worst Movement
1	Monroe Street and Avenue 50	Signalized	AM	B / 16		B / 17.5	
			PM	B / 15		B / 16.5	
2	Monroe Street and 52nd Avenue	Signalized	AM	A / 7.6		A / 9.3	
			PM	A / 7.9		B / 11.4	
3	*Arabia Street and 52nd Avenue (Proposed Project)*	*SSSC*	*Not included in this alternative.*				
4	Jackson Street and 52nd Avenue	Signalized	AM	B / 16.1		B / 16.8	
			PM	B / 15.2		B / 16.1	
5	Monroe Street and Via La Serena Street	SSSC	AM	A / 9.3		A / 9.9	
			PM	A / 9.4		B / 10.3	
6	Monroe Street and Avenue 53	SSSC	AM	B / 14.0	EB	C / 19.4	EB
			PM	C / 17.0	EB	**D / 28.5**	EB
7	*Driveway G and Avenue 53 (Proposed Project)*	*SSSC*	*Not included in this alternative.*				
8	Driveway A and Avenue 53 (Project Alternative)	SSSC	AM	A / 9.1	NB	A / 9.1	NB
			PM	A / 9.3	NB	A / 9.3	NB
9	Driveway G and Avenue 53 (Project Alternative)	SSSC	AM	A / 8.7	NB	A / 8.7	NB
			PM	A / 8.9	NB	A / 8.9	NB

Note:
1. AWSC: All-Way Stop Control. 2. SSSC: Side-Street Stop Control. 3. Deficient intersection operations are noted in **bold text** (below LOS C). Source: Fehr & Peers, 2026.

Queueing Assessment Summary

Intersection turn-movement queueing was evaluated at the study intersections (signalized and all-way stop controlled) using HCM 7th Edition methodologies. Storage capacities were compared against 95th percentile queue estimates prepared using the Synchro 12 software. Excessive queueing is defined as a 95th percentile queue that exceeds the available turn-bay storage. Under all scenarios and both peak hours, for the Project Alternative, the 95th percentile queues are contained within the available storage, and no excessive queueing was identified. A summary is provided in **Table B**, and detailed queueing worksheets are provided in **Appendix F**.

Table B. Project Alternative Intersection Queuing Assessment Summary

ID	Intersection	OY (2030) +Project	OY (2030) +Project +Cumulative
1	Monroe St & 50th Ave	●	●
2	Monroe St & 52nd Ave	●	●
4	Jackson St & 52nd Ave	●	●

Source: Fehr & Peers 2026, Synchro 12 (HCM 7th Edition). ● represents "No Excessive Queue" – as documented in Appendix F.

Opening Year (2030) Project Alternative Improvements

Feasible measures were identified to improve intersection operations at deficient intersections to an acceptable LOS (LOS C or better).

At Intersection #6, Monroe Street at Avenue 53, the west leg could be restriped to provide a dedicated eastbound left-turn lane and a shared eastbound through/right lane, replacing the previous configuration of a shared EBL/T and EBR lane. This improvement resolved the LOS deficiency under the Opening Year (2030) Plus Project and Cumulative Projects Alternative 2 PM scenario. Signal analysis warrant sheets can be found in **Appendix G**.

Table C compares intersection operations without and with improvements under improvements.

Table C. Opening Year (2030) Project Alternative with Improvements Levels of Service

Intersection	Peak Hour	Opening Year (2030) Plus Project		Opening Year (2030) Plus Project and Cumulative Projects		Opening Year (2030) Plus Project w/ Improvement		Opening Year (2030) Plus Project and Cumulative w/ Improvement		Fair Share %
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	
6. Monroe Street and Avenue 53	AM	B	14.0	C	19.4	B	13.4	C	18.3	13.1%
	PM	C	17.0	**D**	**28.5**	B	14.8	C	23.2	13.6%

Notes:
1. Percent of fair share at the intersection is calculated using PM peak hour volumes.
2. Potentially deficient intersection operations are noted in **bold text.**

Source: Fehr & Peers, 2026.

PROJECT ALTERNATIVE IMPROVEMENT FAIR SHARE

The calculated Project fair share contribution towards these improvements is based on the formula outlined in the County's Guidelines:

$$\text{Project Fair Share (P)} = [T(p) \div (T(t) - T(e))]*100$$

Independent variables and associated values for this calculation are shown in **Table D**, formula is assumed to be traffic volumes at individual intersections. Total traffic volumes are from Opening Year (2030) Plus Project Plus Cumulative Projects and Existing Traffic are from collected counts. Both AM and PM volumes were checked and the highest was chosen.

Table D. Opening Year (2030) Project Fair Share Calculations

Variable	Description	Intersection #6 AM Values	Intersection #6 PM Values
T(p)	Project Traffic	63	79
T(t)	Total Traffic[1]	1,117	1,195
T(e)	Existing Traffic	635	614

Note: Traffic values are the sum of all turning movements.
1. Total Traffic Volumes are forecast volumes for the Opening Year Plus Project Plus Cumulative Projects (2030) Peak AM & PM scenario.
Source: Fehr & Peers, 2026.

Figure A: Project Alternative Site Plan



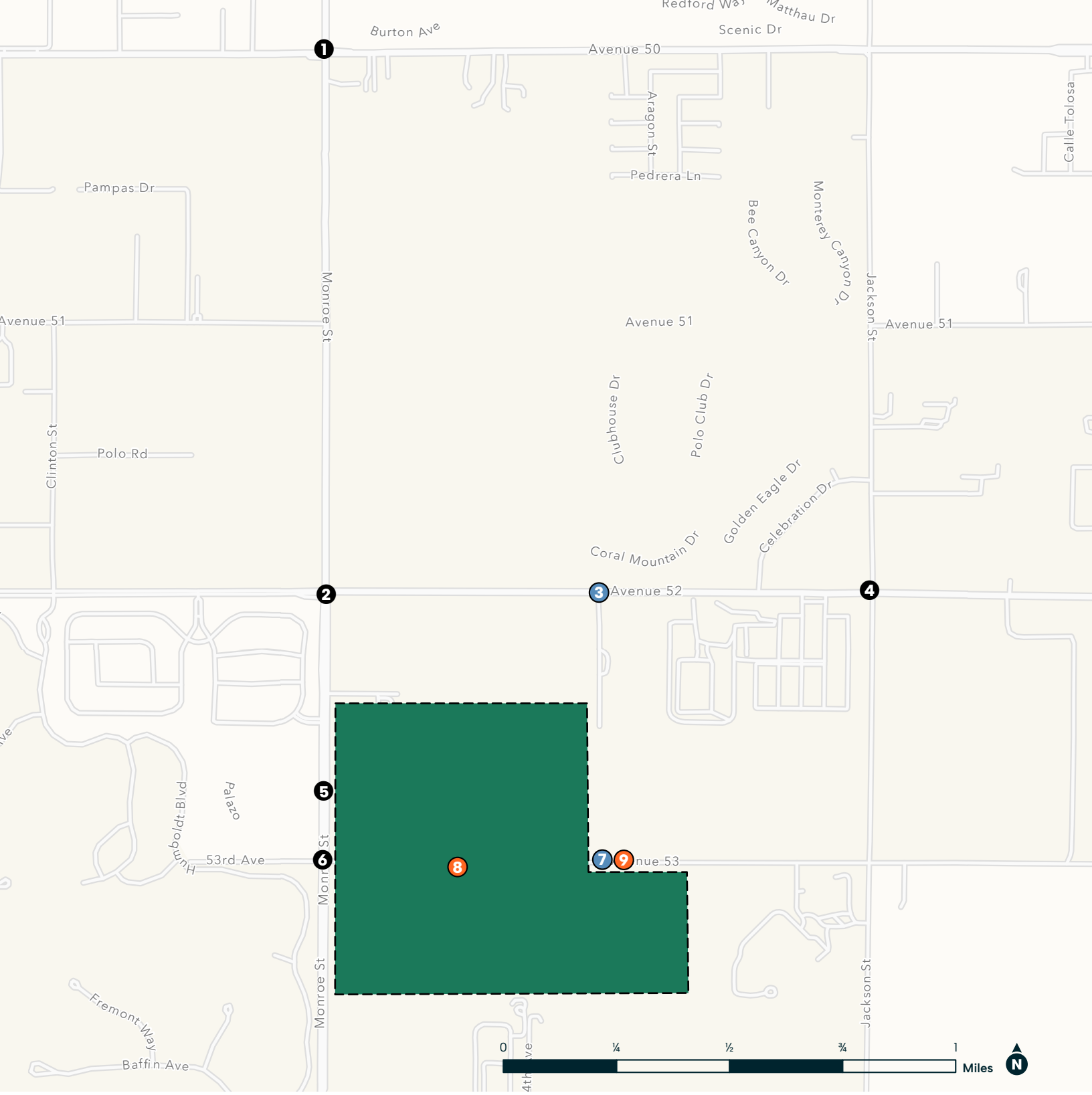


FIGURE B

Project Study Area

Fehr & Peers

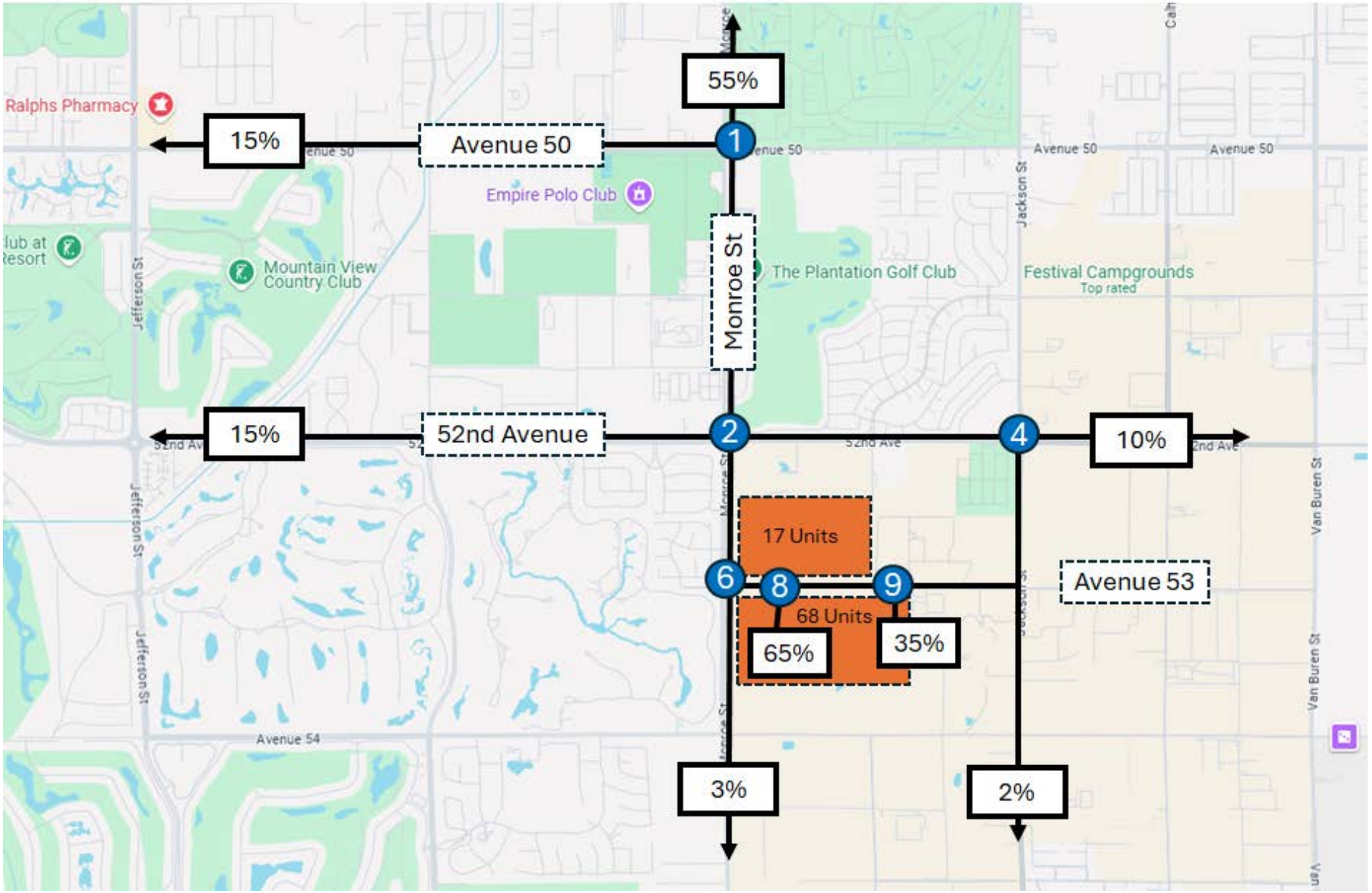
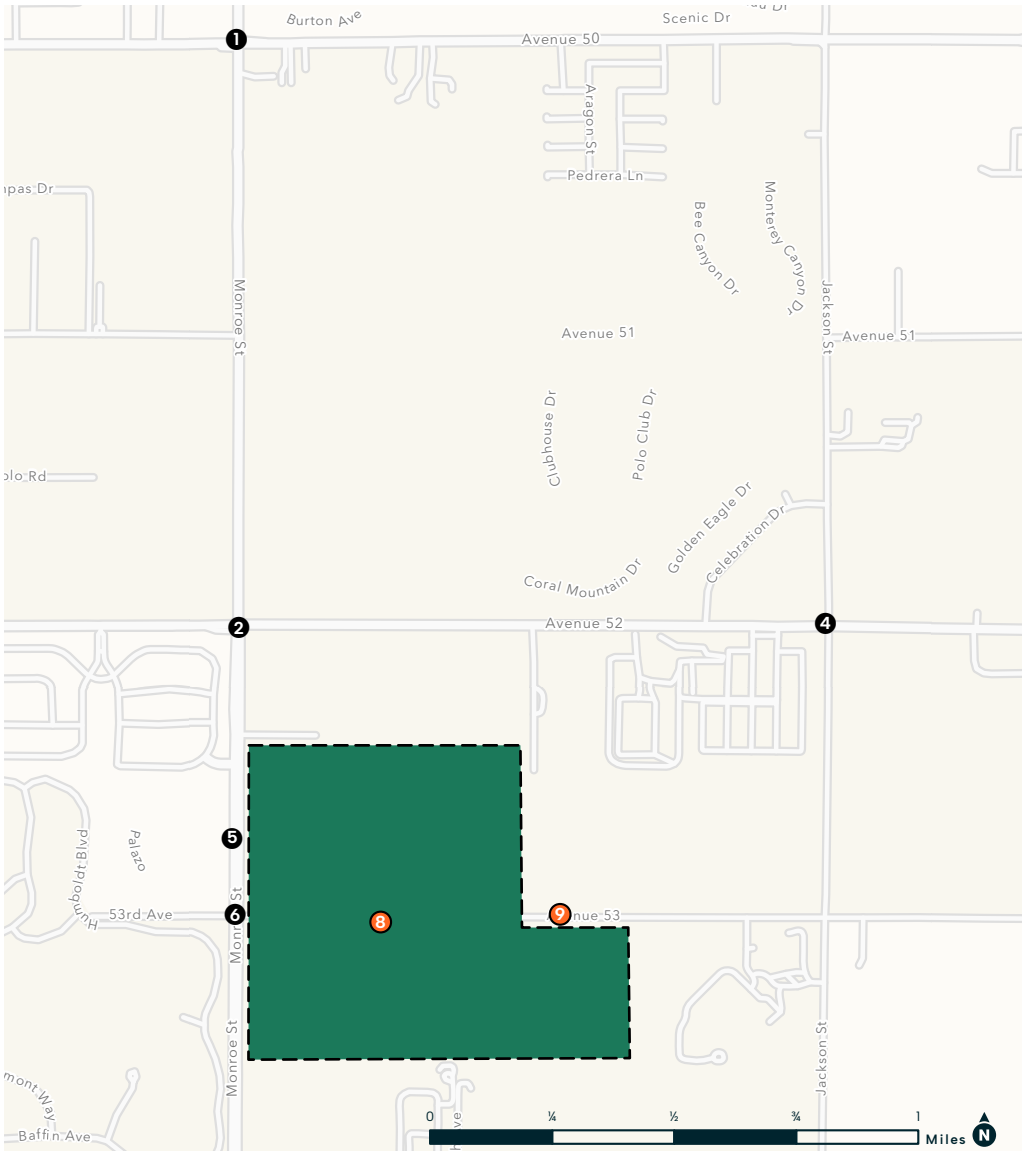
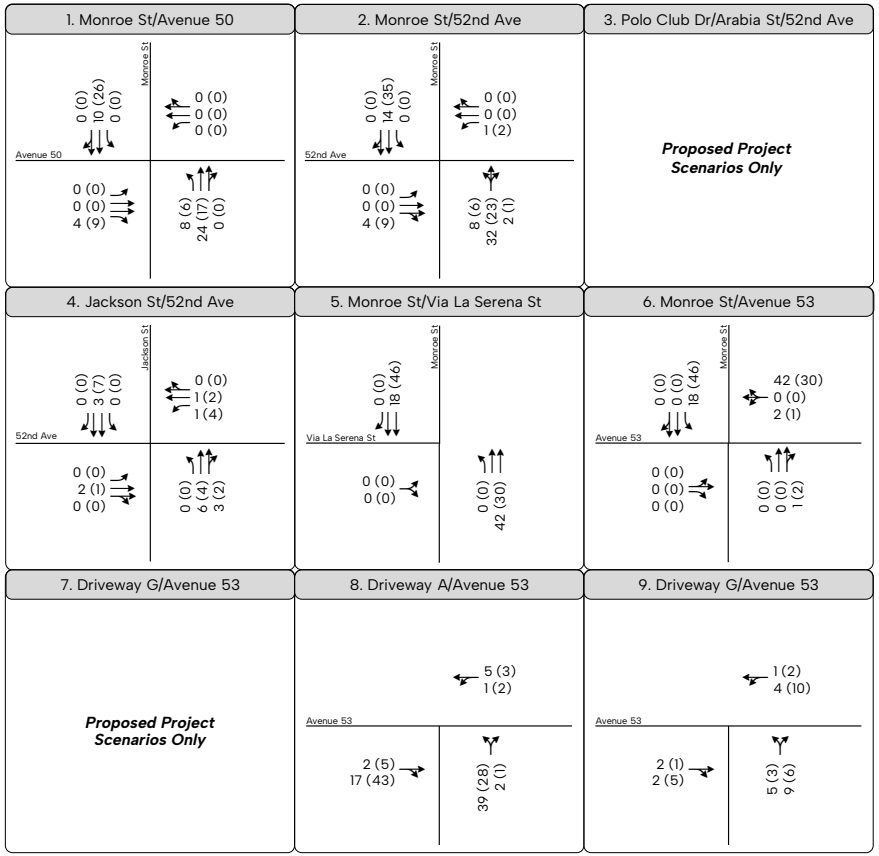


FIGURE C

Project Alternative Project Trip Distribution





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

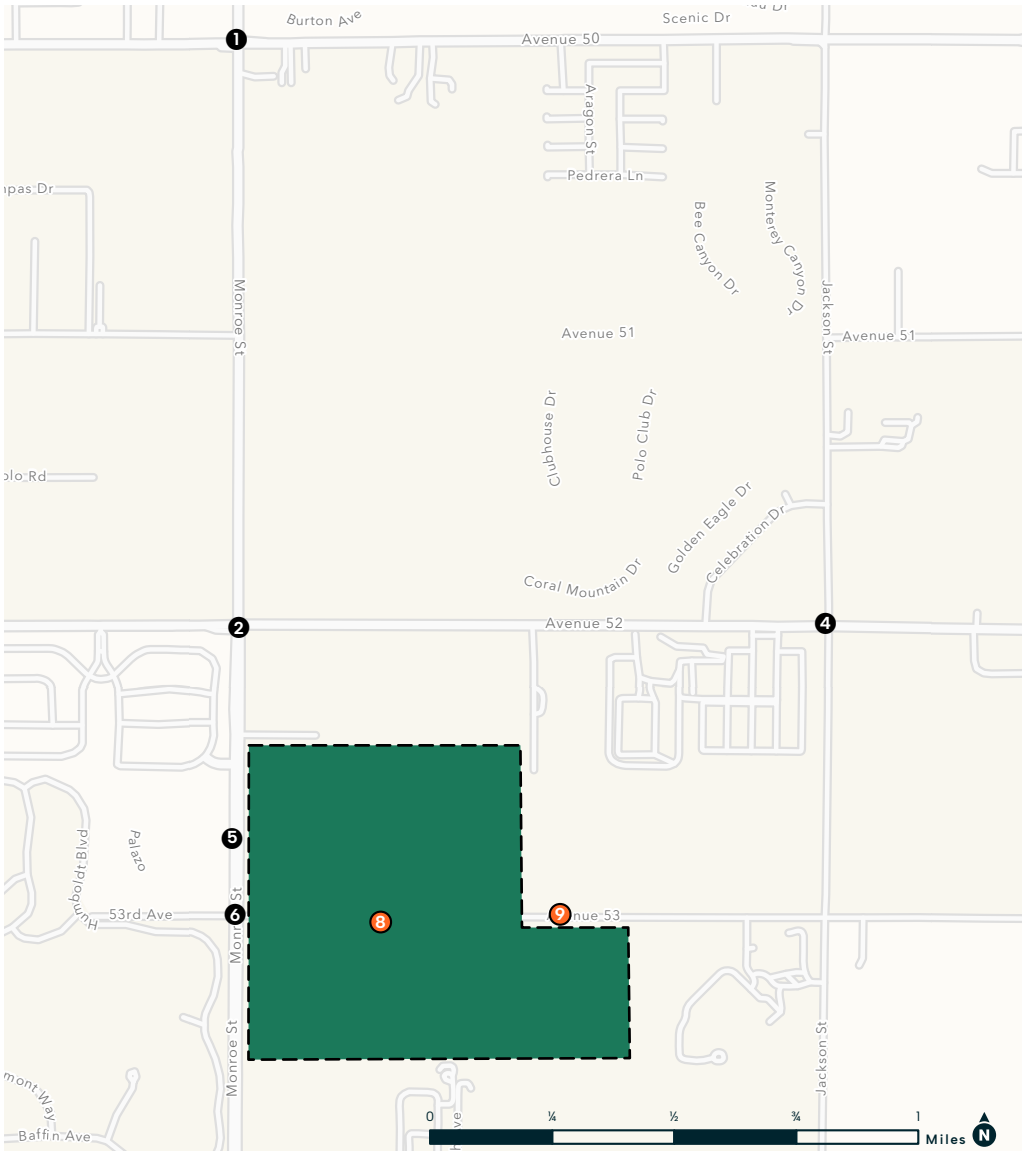
All Scenarios Study Intersections

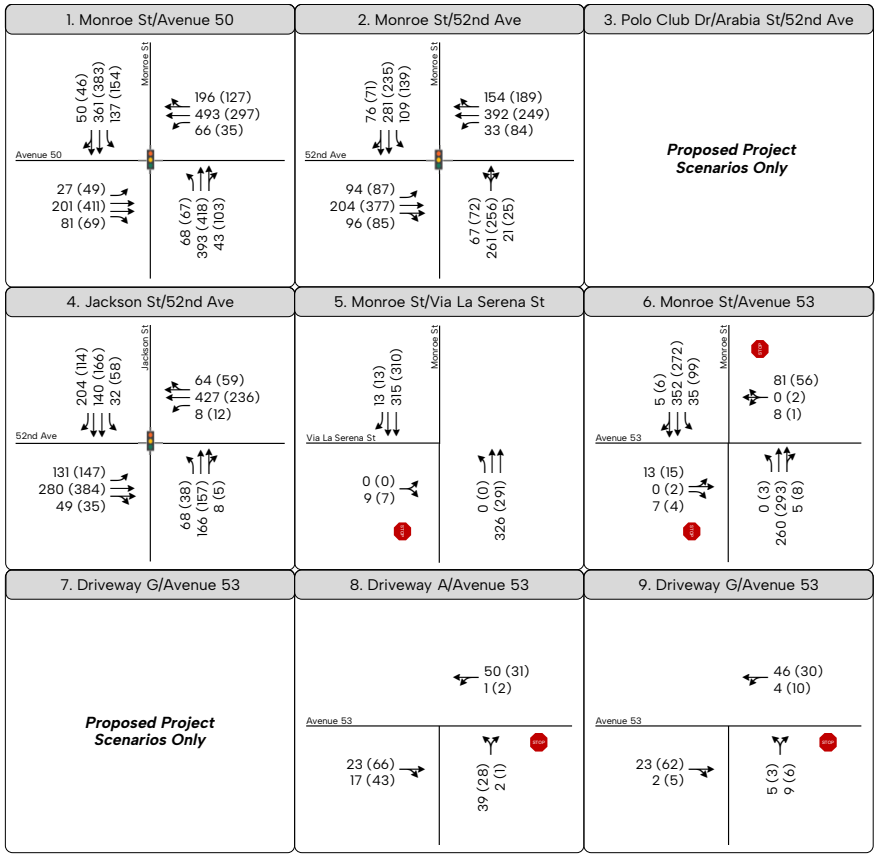
Project Alternative Study Intersections

FIGURE D

Project Alternative
Project Trip Assignment

Fehr & Peers





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

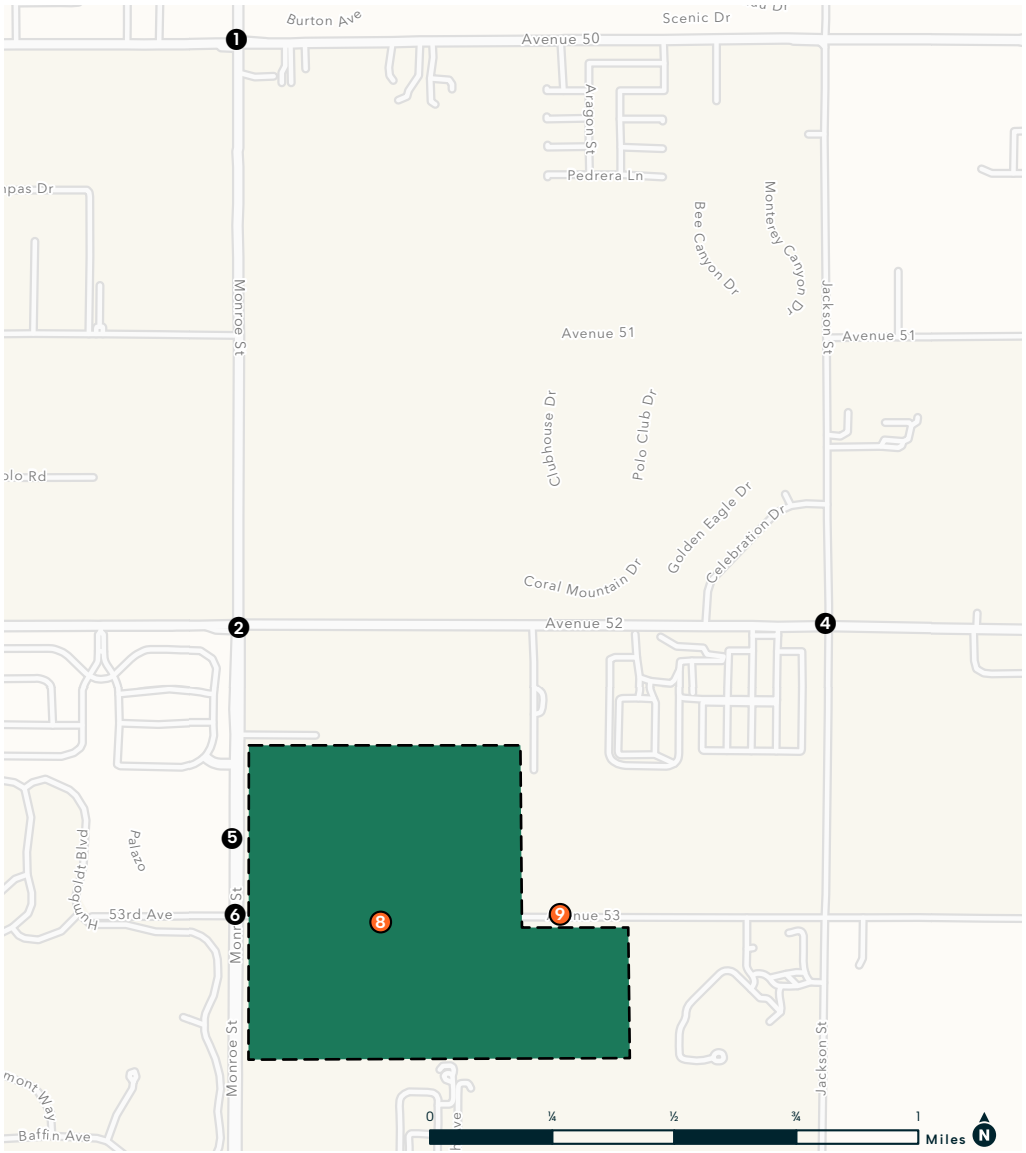
All Scenarios Study Intersections

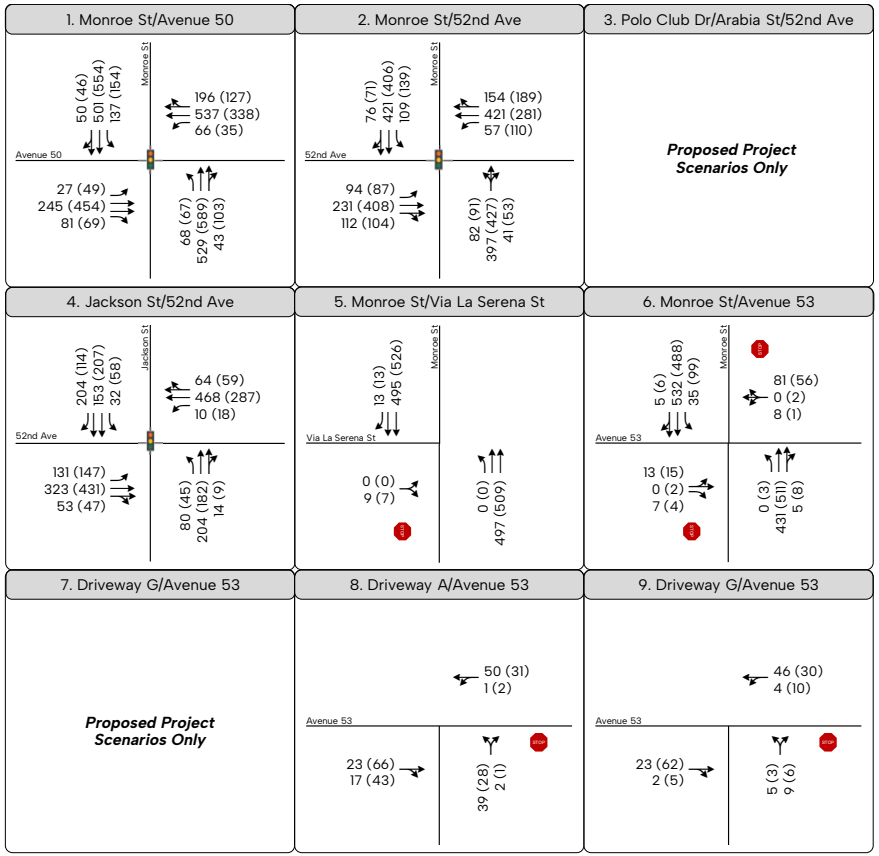
Project Alternative Study Intersections

FIGURE E

Opening Year (2030) Plus Project (Project Alternative) Peak Hour Traffic Volumes and Lane Configurations

Fehr & Peers





LEGEND

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

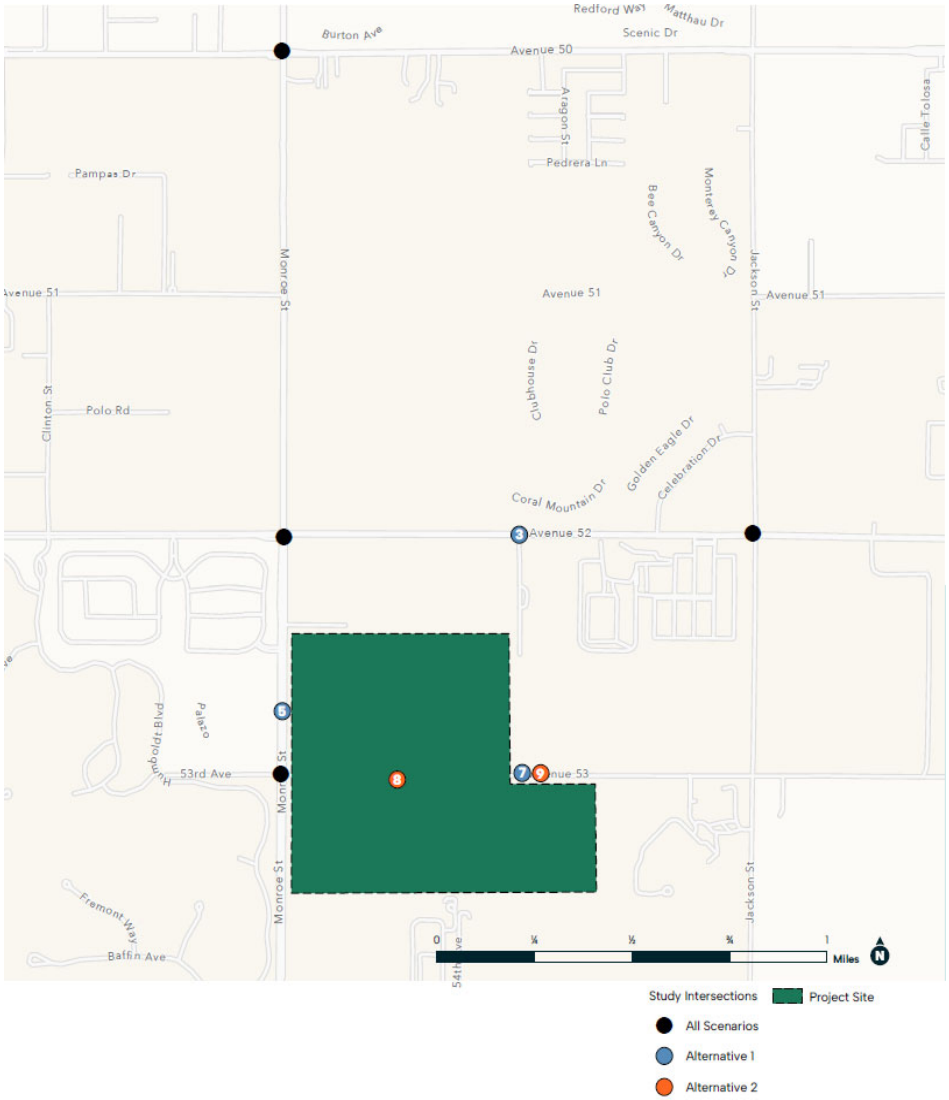
All Scenarios Study Intersections

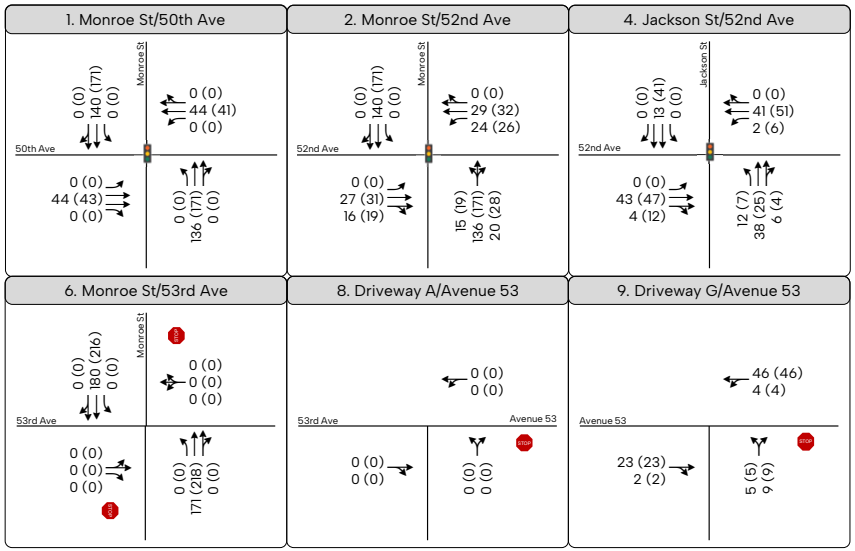
Project Alternative Study Intersections

FIGURE F

Opening Year (2030) Plus Project Plus Cumulative Projects (Project Alternative) Peak Hour Traffic Volumes and Lane Configurations

Fehr & Peers





AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

FIGURE G

Opening Year (2030) Cumulative Projects Only (Alternative 2)
Peak Hour Traffic Volumes and Lane Configurations

Fehr & Peers

Appendix A: Approved Scoping Form

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. This analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated February 2005.

Case No. TS2400006
Related Cases-
SP No. 408
EIR No. CEQA250008
GPA No. 250010
CZ No. 250012
Project Name: The Ranch at Madison

Address: Project site is located NE and SE of Monroe Street and Avenue 53 in the unicorporated community of Vista Santa Rosa southwest of the City of Indio and the City of La Quinta, California.

	Consultant	Developer
Name:	Fehr and Peers	Discovery MM Club, LLC
Address:	101 Pacifica, Ste 300	Attn: John Gamlin
	Irvine, CA 92618	53035 Meriweather Way
Telephone:	(949) 859-3200	La Quinta, CA 92253 (760) 238-2443

A. Trip Generation Source: ITE Trip Generation Manual, 12th Edition (2025)

Current GP Land Use	Agriculture and Rural Community-Low Density Residential	Proposed	LDR, MDR, and Open Space Recreation
Current Zoning	A-1-20, R-1, R-A-2-20,000, R-5	Proposed	Specific Plan No. 408

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				24	54	78
PM Trips				60	39	99

Internal Trip Allowence ● Yes O No (50 (see trip gen attachemnet) % Trip Discount)
Pass-By Trip Allowence O Yes ● No (_____% Trip Discount)

A passerby trip discount of 25% is allowed for appropriate land uses. The passerby trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: N 55 % S 5 % E 10 % W 30 %
(attach exhibit for detailed assignment)

C. Background Traffic

Project Build-out Year: 2030
Phase Year (s):
Annual Ambient Growth Rate: 2%

Other area projects to be analyzed:

Model/Forecast Methodology: RIVCOM: CY 2045

Exhibit B-Scoping Agreement-Page 2

D. Study Intersections: (Note: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

1. Monroe St and Ave 50	6. Monroe St and Ave 53
2. Monroe St and 52nd Ave	7. East Entry/Exit (Drive G) and Ave 53
3. Arabia St and 52nd Ave	8.
4. Jackson St and 52nd Ave	9.
5. Monroe St and West Entry/Exit (Drive A)	10.

E. Study Roadway Segments: (Note: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

F. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ● Yes O No

If so, name City Jurisdiction: La Quinta, California

G. Site Plan (Please attach reduced copy)

H. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline)
(to be filled out by Transportation Department)

Note: An additional section will be added to the analysis that addresses potential traffic impacts with and without the roadway vacation of Ave 53; These scenarios are visualized in Figure 6, 7, and 8.

I. Existing Conditions:

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts:

***Note* Traffic Study Submittal Form and appropriate fee must be submitted with this form.**

Recommended by:

Consultant's Representative

10/20/2025
Date:

Approved Scoping Agreement:

Eva Covarrubias
Riverside County Transportation Department

10/23/2025
Date

Scoping Agreement Submitted on 10/20/2025

Revised on

Revised 04/2005

Figure 1: Project Trip Generation Estimates (ITE 12th Edition)

Land use	Units	ITE Code	Quantity	Daily Rate	AM Peak Hour Rate			PM Peak Hour Rate			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
					Rate	In	Out	Rate	In	Out		Total	In	Out	Total	In	Out
Single-Family Detached Housing	Dwelling Units	210	85	9.09	0.75	27%	73%	0.97	63%	37%	773	64	17	47	82	52	30
Golf Course	Holes	430	9	30.38	2.96	52%	48%	3.68	47%	53%	273	27	14	13	33	16	17
Golf Course Trip Reduction Rate: 50%											137	14	7	7	17	8	9
										Totals:	**910**	**78**	**24**	**54**	**99**	**60**	**39**

Based on the Project proposal, the Golf Course will be exclusive for residents and their guests. As a result, a 50% reduction rate was applied to the Golf Course since the Land Use Code only accounts for Public Golf Courses. We still anticipate some trips to be made for employees of the golf course and guests who will utilize the facility.

Figure 2: Regional Trip Distribution



Trip Distribution Justification

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the project site. Surrounding land uses, existing roadway characteristics, traffic forecasts from Riverside County Transportation Model (RIVCOM) and local knowledge were used to develop the trip distribution. The project trip distribution is described below and presented in Figure 2 and 3.

-55% NB traveling towards I-10

-30% WB traveling on Highway 111

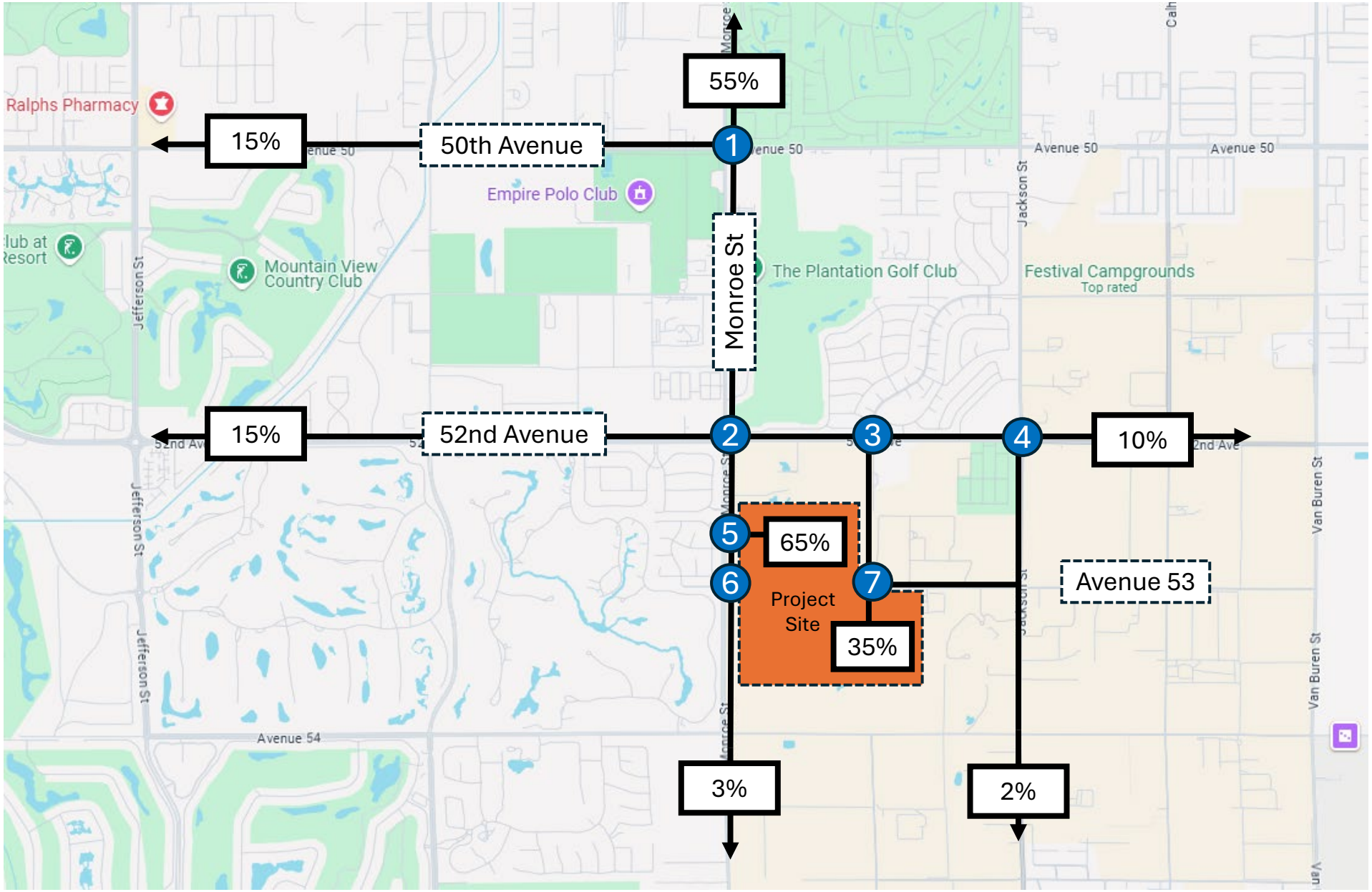
-10% EB traveling towards the City of Coachella

-5% SB traveling towards Vista Santa Rosa

= Project Site

% = Trip Distribution Rate

Figure 3: Project Trip Distribution (Alternative #1)



Study Intersection

1. Monroe St and Ave 50
2. Monroe St and 52nd Ave
3. Arabia St and 52nd Ave
4. Jackson St and 52nd Ave
5. Monroe St and West Entry/Exit (Drive A)
6. Monroe St and Ave 53
7. East Entry/Exit (Drive G) and Ave 53

(#) = Study Intersection

= Project Site

(%) = Trip Distribution Rate

= Street Name

The Project site features two entry/exit driveways. The West Driveway will be the main driveway (residents, guests, and golf course) and the East Driveway will serve as a secondary primarily for residents and guests. Given this knowledge, we anticipate 65% of trips to be made at the West Driveway and the remaining 35% to be made at the East Driveway.

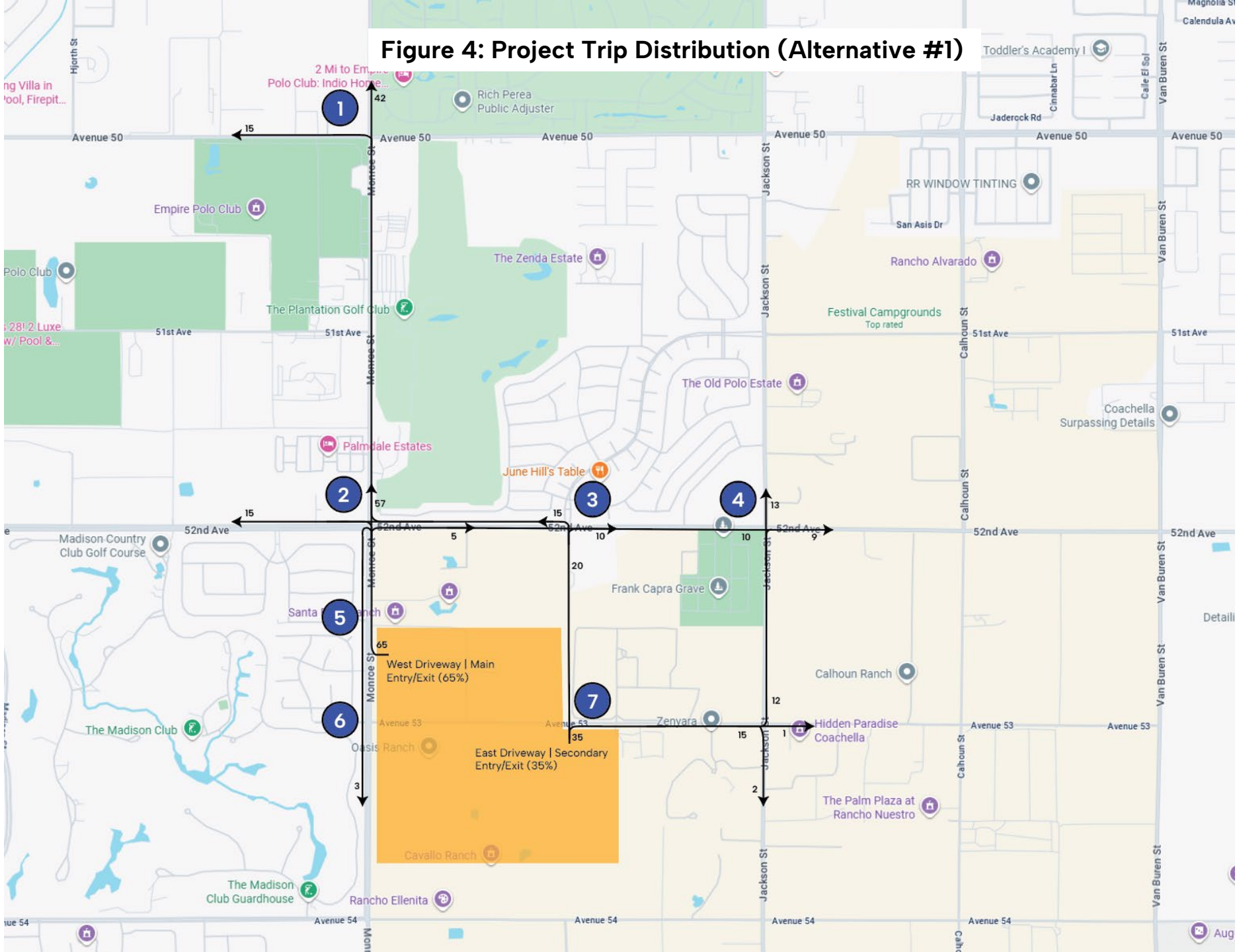

Figure 4: Project Trip Distribution (Alternative #1)
1
2
3
4
5
6
7
42
15
57
15
5
15
10
10
13
9
20
65
35
12
15
1
2
3
West Driveway | Main Entry/Exit (65%)
East Driveway | Secondary Entry/Exit (35%)
Avenue 50
Avenue 52nd Ave
Avenue 51st Ave
Avenue 53
Avenue 54
Monroe St
Jackson St
Calhoun St
Van Buren St
Empire Polo Club
The Plantation Golf Club
The Zenda Estate
Palmdale Estates
June Hill's Table
The Old Polo Estate
Festival Campgrounds
Top rated
Rancho Alvarado
RR WINDOW TINTING
Rich Perea Public Adjuster
Toddler's Academy I
Coachella Surpassing Details
Madison Country Club Golf Course
Frank Capra Grave
Calhoun Ranch
Zenyara
Hidden Paradise Coachella
The Palm Plaza at Rancho Nuestro
The Madison Club
Oasis Ranch
Cavallo Ranch
The Madison Club Guardhouse
Rancho Ellenita
Jaderock Rd
San Asis Dr

Figure 5: Project Site Plan – Alternative #1



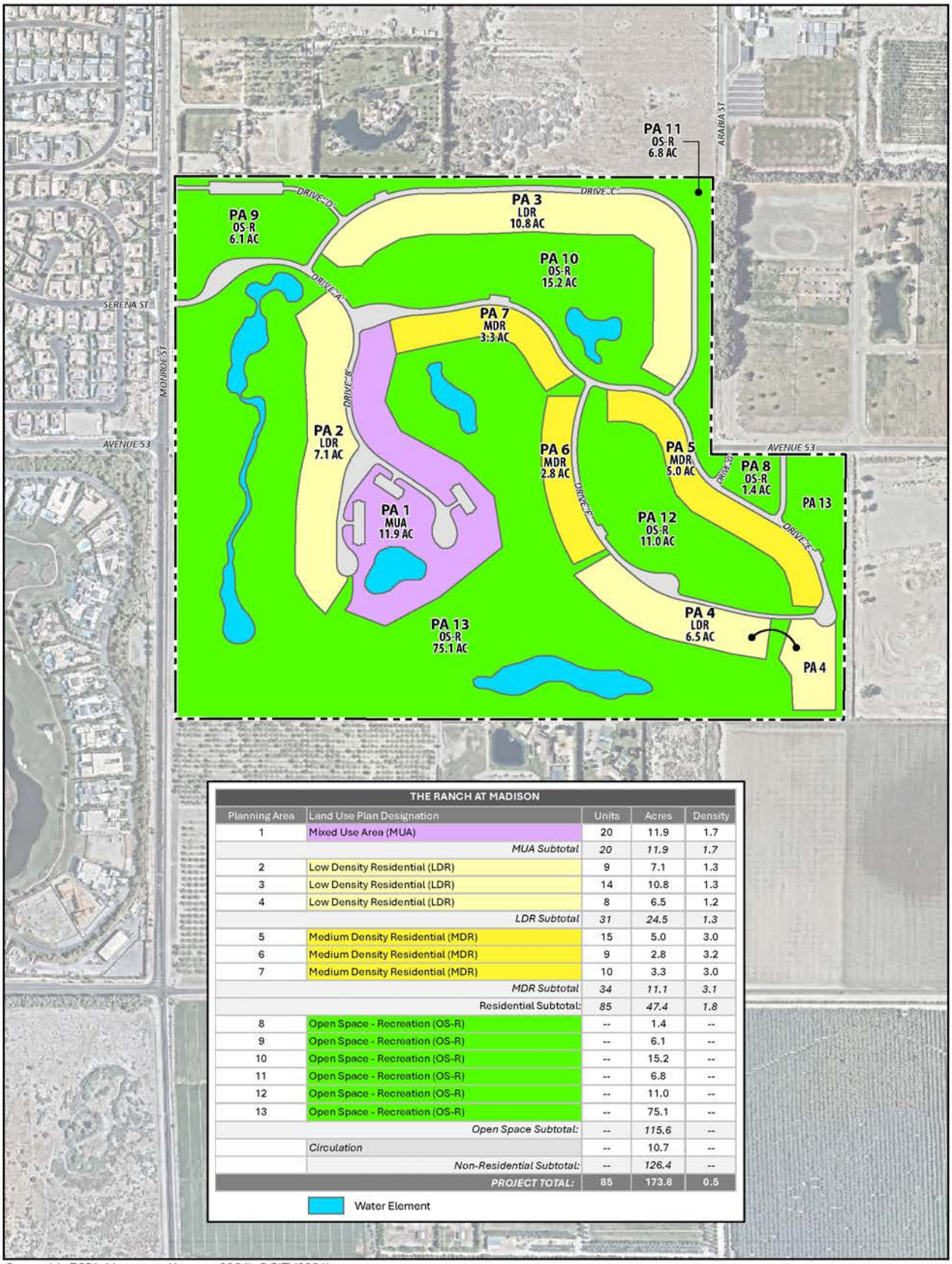
Source(s): VITA, Inc. (08-28-2025)

Not to Scale

Figure 2-2

Conceptual Vehicular Circulation Plan

X-X



THE RANCH AT MADISON				
Planning Area	Land Use Plan Designation	Units	Acres	Density
1	Mixed Use Area (MUA)	20	11.9	1.7
	MUA Subtotal	*20*	*11.9*	*1.7*
2	Low Density Residential (LDR)	9	7.1	1.3
3	Low Density Residential (LDR)	14	10.8	1.3
4	Low Density Residential (LDR)	8	6.5	1.2
	LDR Subtotal	*31*	*24.5*	*1.3*
5	Medium Density Residential (MDR)	15	5.0	3.0
6	Medium Density Residential (MDR)	9	2.8	3.2
7	Medium Density Residential (MDR)	10	3.3	3.0
	MDR Subtotal	*34*	*11.1*	*3.1*
	Residential Subtotal:	*85*	*47.4*	*1.8*
8	Open Space - Recreation (OS-R)	--	1.4	--
9	Open Space - Recreation (OS-R)	--	6.1	--
10	Open Space - Recreation (OS-R)	--	15.2	--
11	Open Space - Recreation (OS-R)	--	6.8	--
12	Open Space - Recreation (OS-R)	--	11.0	--
13	Open Space - Recreation (OS-R)	--	75.1	--
	Open Space Subtotal:	--	*115.6*	--
	Circulation	--	10.7	--
	Non-Residential Subtotal:	--	*126.4*	--
	PROJECT TOTAL:	**85**	**173.8**	**0.5**

Water Element

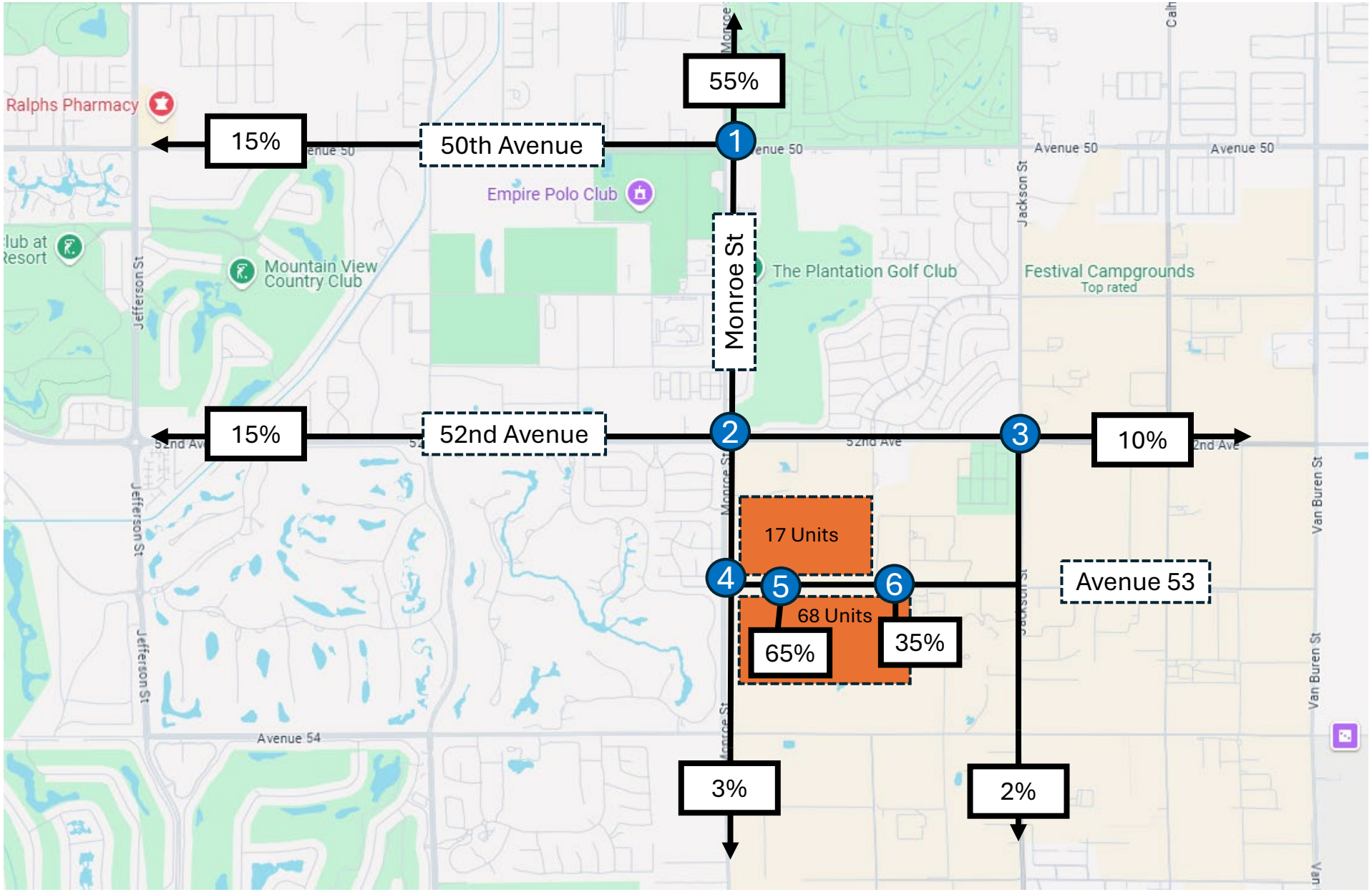
Source(s): ESRI, Nearmap (August 2024), RCIT (2024)
Composite: RTM (09-05-2025)

0 175 350 700 Feet

Figure 2-1

Specific Land Use Plan

Figure 6: Project Trip Distribution (Alternative #2)



Study Intersection

1. Monroe St and Ave 50
2. Monroe St and 52nd Ave
3. Jackson St and 52nd Ave
4. Monroe St and Ave 53
5. Ave 53 and West Driveway
6. Ave 53 and East Driveway

(#) = Study Intersection

= Project Site

% = Trip Distribution Rate

= Street Name

The Project site features two entry/exit driveways. The West Driveway will be the main driveway (residents, guests, and golf course) and the East Driveway will serve as a secondary primarily for residents and guests. A bridge/tunnel will connect the 17 units n/o Avenue 53 to the 68 units s/o Avenue 53, as well as the entry/exits. Given this knowledge, we anticipate 65% of trips to be made at the West Driveway and the remaining 35% to be made at the East Driveway.

Figure 7: Project Trip Distribution (Alternative #2)

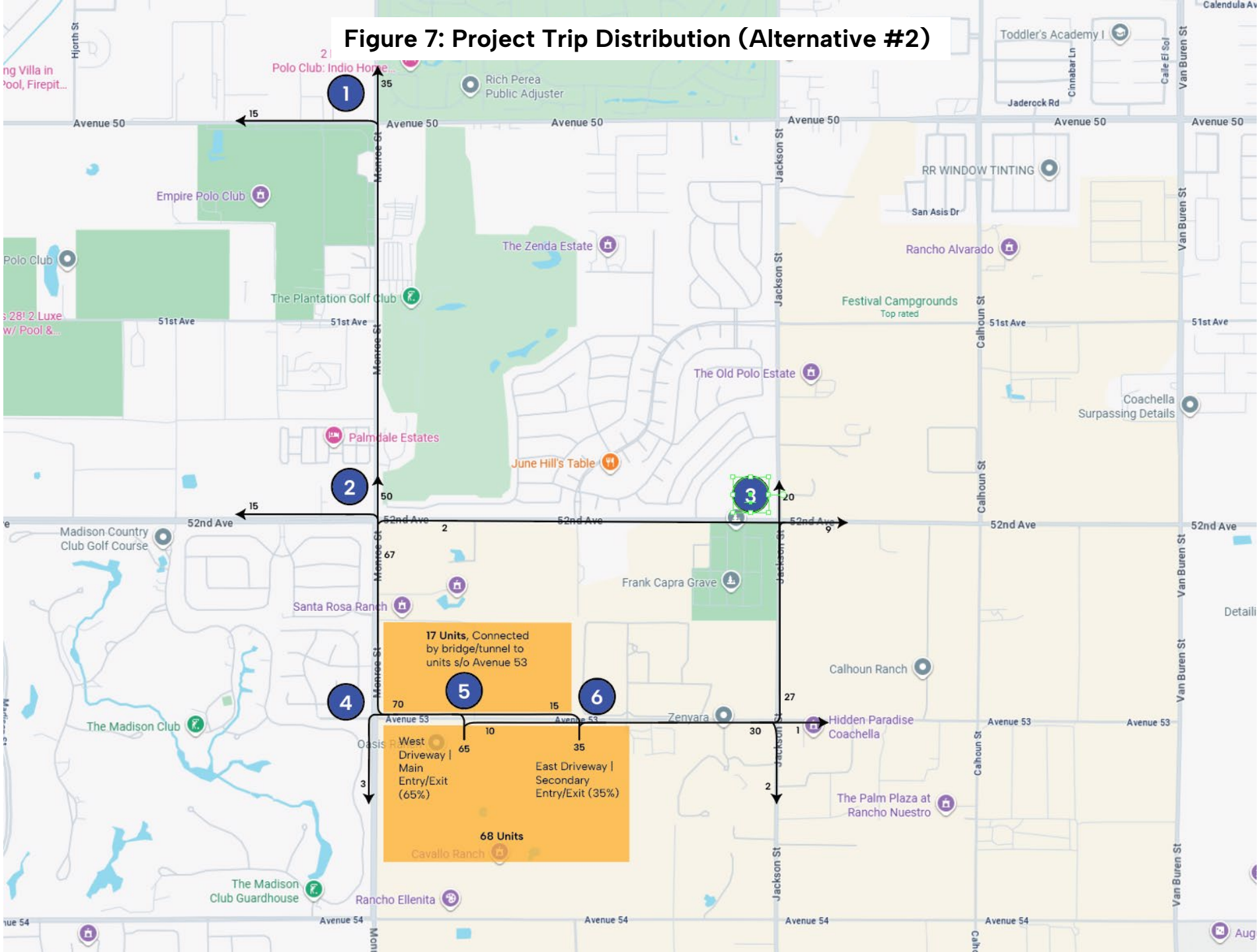
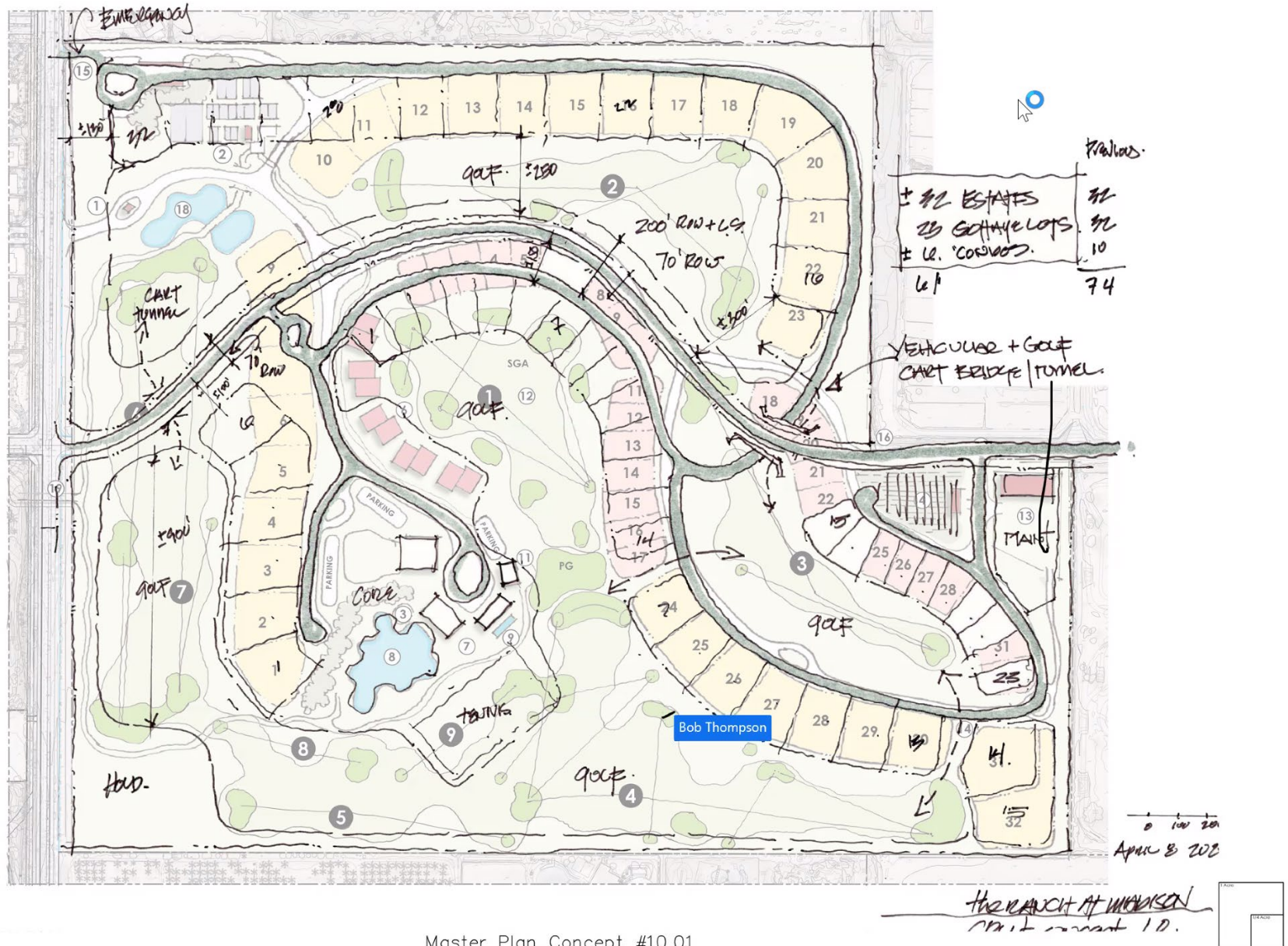


Figure 8: Project Site Plan (Alternative #2 Concept)



Appendix B: VMT Screening Memo

Fehr & Peers

Memo

Date: January 21, 2026

To: Tony Locacciato, Trinity Consultants (Meridian Consultants)

From: Paul Herrmann P.E., Trevor Lien, Fehr & Peers

Subject: The Ranch at Madison – Vehicle Miles Traveled (VMT) Screening Assessment

---

Fehr & Peers conducted a Vehicle Miles Traveled (VMT) Screening Assessment for the proposed Ranch at Madison Specific Plan (Project) in the unincorporated community of Vista Santa Rosa in Riverside County.

Consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), and the County of Riverside's *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (December 2020)[1], this assessment concludes that the Project can be screened from needing VMT analysis under the presumption, based on the applicable screening criteria, that the Project VMT impacts will be less than significant.

Project Description

The Project Site is located east of Monroe Street between 52nd and 54th Avenues in the unincorporated community of Vista Santa Rosa, south and east, respectively of the Cities of Indio and La Quinta. The 174-acre Project Site is located immediately east of the Madison Club, a residential and golf course community in La Quinta. The Project is a proposed new private residential community with private recreational facilities for use by residents only, including a nine-hole golf course, spa, sports fields, racquet courts, clubhouses, and pools.

The Project will include 85 residential units and accompanying private residential-serving local amenities for use by Project residents only, including a nine-hole golf course, wellness center, and restaurants. The comprehensive on-site private amenities, which are local serving and exclusively for resident use, will meet many of the day-to-day needs of residents, who will remain on-site to a greater degree than would occur with a standard single family residential community without these features. These resident use characteristics are anticipated to function similarly to the Madison Club, which the Applicant operates. As a result, the Project will generate fewer external trips by residents than a standard single family residential project would.

---

[1] County of Riverside Transportation Analysis Guidelines for LOS and VMT (Dec. 2020)

The 85 units will be distributed across low-density residential, medium-density residential, and mixed-use planning areas; however, all will function as single-family residences. A conceptual site plan is provided in **Appendix A**.

VMT Screening Criteria

The County's TIA Guidelines specifies that VMT should be assessed for land use projects that have the potential to increase the average VMT per capita. To determine what level of VMT analysis is required, the project should be evaluated to determine if it meets any of the seven screening criteria outlined in the guidelines. The Project screens out based on the County's "Small Project" screening criteria identified below.

1. **Small Project** – Projects with low trip generation per existing CEQA exemptions or based on the County Greenhouse Gas (GHG) Emissions Screening Tables, result in a 3,000 Metrics Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold. The projects listed below are presumed to result in a less-than-significant impact:
    a. **Single-family Housing projects less than or equal to 110 dwelling units**
    b. Multi-family (low-rise) Housing projects less than or equal to 147 dwelling units
    c. Multi-family (mid-rise) Housing projects less than or equal to 194 dwelling units
    d. General Office buildings with area less than or equal to 165,000 square feet (SF)
    e. Retail buildings with area less than or equal to 60,000 SF
    f. Warehouse (unrefrigerated) buildings with area less than or equal to 208,000 SF
    g. General Light Industrial buildings with area less than or equal to 179,000 SF
    h. Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) as determined by a methodology acceptable to the Transportation Department
    i. Unless specified above, project trip generation is less than 110 trips per day per the Institute of Transportation Engineers (ITE) Manual or other acceptable source determined by Riverside County.

Projects not eligible for any of the screening criteria are required to complete a VMT analysis and forecasting through the Riverside County Transportation Analysis Model (RIVCOM) to determine if they have a significant VMT impact.

VMT Screening Assessment

The Project will function as a private residential development with associated private recreation facilities and other amenities serving only residents. The Project includes a total of 85 single-family dwelling units, which is below the County's Small Project Screening Criteria[2] for Single-Family Housing Projects of 110 dwelling units. Conclusion

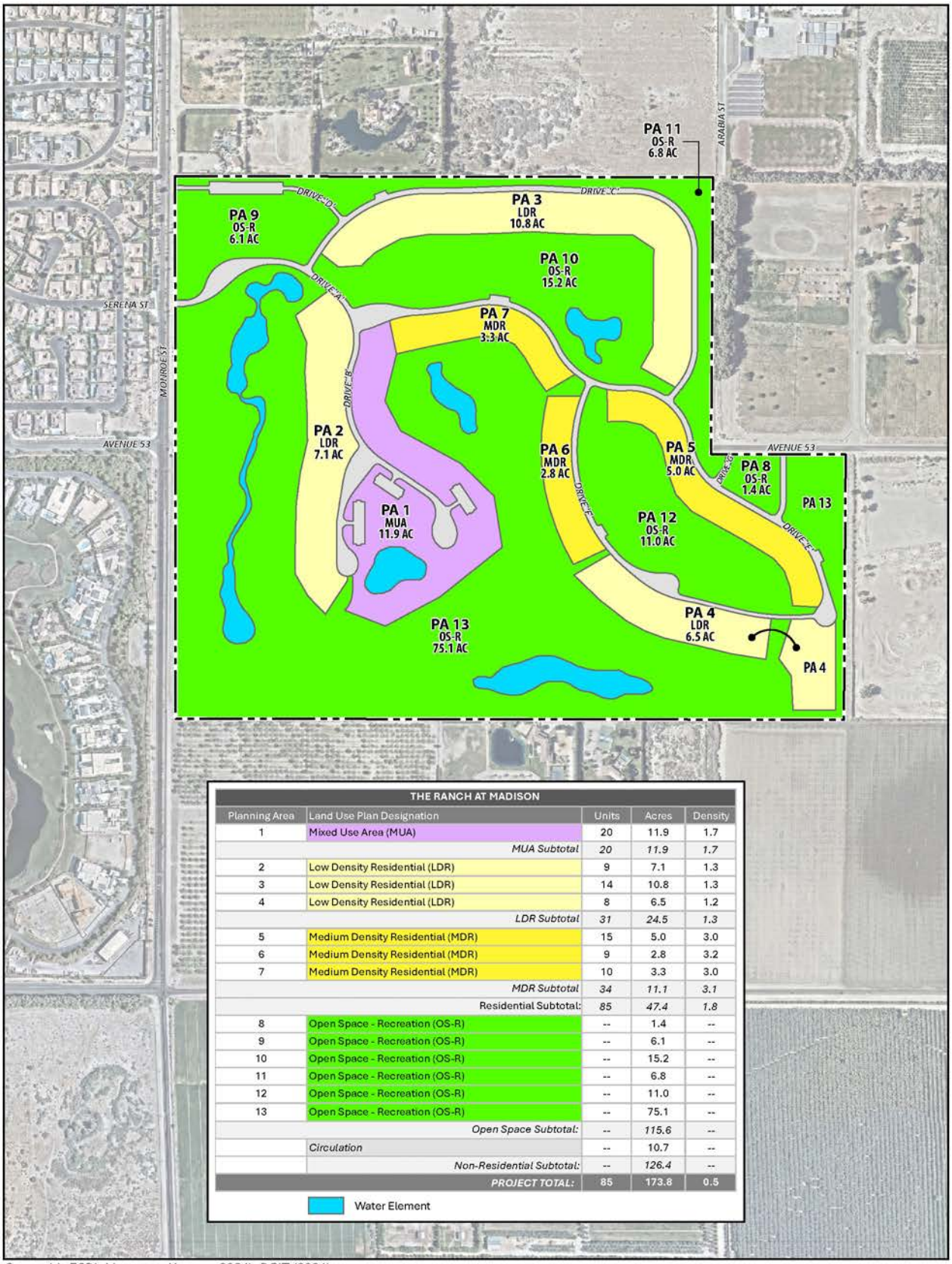
This memorandum presents a VMT screening assessment for the proposed Ranch at Madison Specific Plan (Project) within unincorporated Riverside County, following the County of Riverside TIA Guidelines. The Project includes 85 dwelling units and private residential-serving local amenities. The proposed 85 single-family dwelling units satisfies the Small Project screening criteria as the Project is

[2] County TIA Guidelines (Figure 3), p.19

below the 110-unit threshold. This Project meets the requirements for screening based on the Small Project criteria and can be presumed to have a **less-than-significant transportation impact** and further analysis of potential VMT impacts is not required.

Appendix A

Proposed Project Site Plan



THE RANCH AT MADISON				
Planning Area	Land Use Plan Designation	Units	Acres	Density
1	Mixed Use Area (MUA)	20	11.9	1.7
	MUA Subtotal	*20*	*11.9*	*1.7*
2	Low Density Residential (LDR)	9	7.1	1.3
3	Low Density Residential (LDR)	14	10.8	1.3
4	Low Density Residential (LDR)	8	6.5	1.2
	LDR Subtotal	*31*	*24.5*	*1.3*
5	Medium Density Residential (MDR)	15	5.0	3.0
6	Medium Density Residential (MDR)	9	2.8	3.2
7	Medium Density Residential (MDR)	10	3.3	3.0
	MDR Subtotal	*34*	*11.1*	*3.1*
	Residential Subtotal:	*85*	*47.4*	*1.8*
8	Open Space - Recreation (OS-R)	--	1.4	--
9	Open Space - Recreation (OS-R)	--	6.1	--
10	Open Space - Recreation (OS-R)	--	15.2	--
11	Open Space - Recreation (OS-R)	--	6.8	--
12	Open Space - Recreation (OS-R)	--	11.0	--
13	Open Space - Recreation (OS-R)	--	75.1	--
	Open Space Subtotal:	--	*115.6*	--
	Circulation	--	10.7	--
	Non-Residential Subtotal:	--	*126.4*	--
	PROJECT TOTAL:	**85**	**173.8**	**0.5**

Water Element

Source(s): ESRI, Nearmap (August 2024), RCIT (2024)
Composite: RTM (09-05-2025)

0 175 350 700 Feet

Figure 2-1

Specific Land Use Plan

Appendix C: VMT Assessment Memo

Fehr & Peers

Memo

Date: March 27, 2026

To: Tony Locacciato, Trinity Consultants (Meridian Consultants)

From: Paul Herrmann P.E.
Trevor Lien
Marsha Phillips

Subject: The Ranch at Madison – Vehicle Miles Traveled (VMT) Assessment

---

Fehr & Peers conducted a Vehicle Miles Traveled (VMT) Assessment for the proposed Ranch at Madison Specific Plan (Project) in the unincorporated community of Vista Santa Rosa in Riverside County.

Consistent with requirements of Senate Bill 743 (SB 743), the California Governor's Office of Land Use and Climate Innovation's (LCI's)[1] *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018)[2], and the County of Riverside's *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (December 2020)[3], this assessment concludes that the Project would not exceed the County's VMT threshold. Thus, **the Project VMT impacts will be less than significant.**

Project Description

The Project Site is located east of Monroe Street between 52nd Avenue and 54th Avenue in the unincorporated community of Vista Santa Rosa, south and east, respectively, of the Cities of Indio and La Quinta. The 174-acre Project Site is located immediately east of the Madison Club, a residential and golf course community in La Quinta.

The Project is a proposed new private residential community with 85 single-family residences and comprehensive on-site private amenities exclusively for resident use, including a nine-hole golf course, clubhouse, wellness center and spa, pools, sports fields, racquet courts, and restaurants. The 85 units will be distributed across low-density residential, medium-density residential, and mixed-use planning areas; however, all will function as single-family residences supported by 151 employees across all components. A conceptual site plan is provided in **Appendix A**.

The comprehensive on-site private amenities, which are local serving and exclusively for resident use, will meet many of the day-to-day needs of residents, who are expected to remain on-site to a greater degree than would occur with a standard single-family residential community without these

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[1] The California Governor's Office of Land Use and Climate Innovation was previously known as the Office of Planning and Research.

[2] *Technical Advisory on Evaluating Transportation Impacts in CEQA* (LCI, 2018)

[3] *Transportation Analysis Guidelines for LOS and VMT* (County of Riverside, Dec. 2020)

features. These resident use characteristics are anticipated to function similarly to the Madison Club, which the Applicant operates. As a result, the Project will generate fewer external trips by residents than a standard single-family residential project would.

VMT Screening Criteria

The County's TIA Guidelines specify that VMT should be assessed for land use projects that have the potential to increase the average VMT per capita. To determine the appropriate level of VMT analysis, the Project was evaluated against the seven screening criteria outlined in the guidelines. As documented in **Appendix B**, the Project underwent a screening evaluation and was determined to qualify for the County's "Small Project" screening criteria, indicating a less-than-significant transportation impact.

However, although the Project qualified for and received approval under the screening criteria, a full VMT assessment was voluntarily conducted to substantiate the conclusion that the Project would result in a less-than-significant transportation impact.

VMT Methodology

The VMT modeling and forecasting assessment was performed following the *Riverside County Guidelines* and proposed as part of the Project Scoping Form, included as **Appendix B.** Projects are required to utilize either (1) the Riverside County Sketch Planning Tool or (2) RIVCOM or other approved travel demand forecasting model to conduct detailed VMT assessment. RIVCOM is the Western Riverside County Council of Government's (WRCOG) latest update to the Riverside County Transportation Analysis Model (RIVTAM) and consistent with *Connect SoCal 2020*, Southern California Association of Government's (SCAG's) 2020 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). RIVCOM uses a model base year of 2018 and future year of 2045, and it is the most appropriate model for analysis of the Project as it contains the most recent available land use and roadway information for forecasting and planning purposes.

The RIVCOM model, which provides socio-economic data (SED) by housing and employment categories, was used to model the Project VMT. Fehr & Peers isolated the Project into its own Transportation Analysis Zone (TAZ) so that the Project VMT could be estimated while accounting of SED that is consistent with the Applicant's target market for the Project. Within RIVCOM, the Project was assigned to both single family homes and a mix of employment categories and was updated to reflect both traditional on-site employees (hospitality, food service, maintenance, and operations staff):

- 85 single family housing units with an assumed 3.06 persons per household consistent with the Project's Environmental Impact Report (EIR) resident estimates
- 151 Employees, provided by the Applicant

Table 1 presents the employment SED data distribution for the Project location in RIVCOM.

Table 1. Average Daily Employment Categories for the Project

Total Employment	Retail	Arts and Entertainment	Other Services
151	5%	80%	15%

Notes:
1. Retail includes convenience, clothing, and other retail trade.
2. Arts and Entertainment includes traveler accommodation, food services, golf courses, and drinking places.
3. Other services includes on-site professional management or maintenance.

This transportation impact analysis presents 'project-generated VMT' relative to the applicable thresholds presented in Figure 6 of the *Riverside County Guidelines*. Project-generated VMT in this assessment presents trips and trip distances of specific trip purposes. For this analysis, VMT is evaluated by land use type including "Residential" and "Other Employment" consistent with County guidelines as the employment uses are for onsite purposes only and are not externally facing.

The Production/Attraction (PA) methodology was utilized to estimate project-generated VMT. The PA method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area by trip purpose. The PA method tracks these trips to/from their ultimate destination unless that destination is outside of the model boundary area. Productions are land use types that generate trips (residences) and attractions are land use types that attract trips (employment). Productions and attractions are converted from person trips to vehicle trips for the purposes of calculating VMT.

The PA method allows project VMT to be evaluated based on trip purpose which is consistent with LCI recommendations in the Technical Advisory and consistent with the Riverside County's VMT methodology requirements. In this instance, the residential use was analyzed based on the home-based (HB) production VMT per resident and compared against the County threshold, which is derived from the existing countywide average HB VMT per resident. The employment use was analyzed based on the home-based work (HBW) attraction VMT per employee and compared against the Couty thresholds, which is based on the existing countywide average HBW VMT per employee.

The RIVCOM model currently has external travel outside of the model boundaries as fixed external-internal/external-internal (IE/EI) trips and, therefore, does not dynamically respond to changes in project land uses. As a result, default IE/EI trips were not included in the project-level VMT calculations or in the comparison to applicable thresholds to provide an "apples-to-apples" comparison.

VMT Assessment

Riverside County VMT data (countywide) was reviewed for the 2018 base year and the 2045 forecast year, and an interpolated estimate was developed for the existing year (2025) to represent current conditions for Riverside County and the Project. **Table 2** summarizes the VMT forecasts prepared for the impact assessment.

As shown in **Table 2**, the Riverside County VMT threshold for residential projects is 15.71 HB VMT per resident. Based on the 2025 existing year conditions, the Project is estimated to generate 13.24 HB VMT per resident, which is approximately 15.7% below the Riverside County's threshold.

The Riverside County VMT threshold for employment projects is 20.42 HBW VMT per employee. Based on the 2025 existing year conditions, the Project is estimated to generate 18.65 HBW VMT per employee, which is approximately 8.6% below the Riverside County's threshold.

Therefore, the Project would not result in a significant transportation impact related to VMT.

Further substantiating the less than significant impact conclusion, the Project was also compared against Unincorporated Riverside County thresholds. While the operative CEQA threshold per the County's Guidelines is the countywide average, these additional geographies provide supplementary context given the Project's location in the Vista Santa Rosa community (Unincorporated Riverside County). As shown in **Table 2**, the Project falls below threshold on both metrics for all geographies, reinforcing the conclusion that the Project would not result in a significant transportation impact.

Table 2: Project VMT and VMT Threshold in Riverside County

Scenario	Riverside County	Unincorporated Riverside County	Project
Model Base Year 2018			
Home-Based VMT	35,050,392	7,683,776	3,534
Home-Based Work VMT	13,858,582	1,787,373	2,983
Residents	2,358,439	377,528	261
Employees	755,143	78,760	151
HB VMT/Resident	14.86	20.35	13.54
HBW VMT/Employee	18.35	22.69	19.76
Existing Year 2025 Interpolation			
Home-Based VMT	41,390,884	9,150,899	3,456
Home-Based Work VMT	17,328,618	2,316,387	2,817
Residents	2,634,802	424,241	261
Employees	848,710	95,230	151
HB VMT/Resident	**15.71**	21.57	13.24
HBW VMT/Employee	**20.42**	24.32	18.65
Future Year 2045			
Home-Based VMT	59,506,576	13,342,680	3,233
Home-Based Work VMT	27,243,007	3,827,857	2,341
Residents	3,424,410	557,707	261
Employees	1,116,046	142,286	151
HB VMT/Resident	17.38	23.92	12.39
HBW VMT/Employee	24.41	26.90	15.51
VMT Exceeds Threshold?			**No**

Note: **Bold** represents the County's threshold of significance.
Source: Fehr & Peers, 2026.

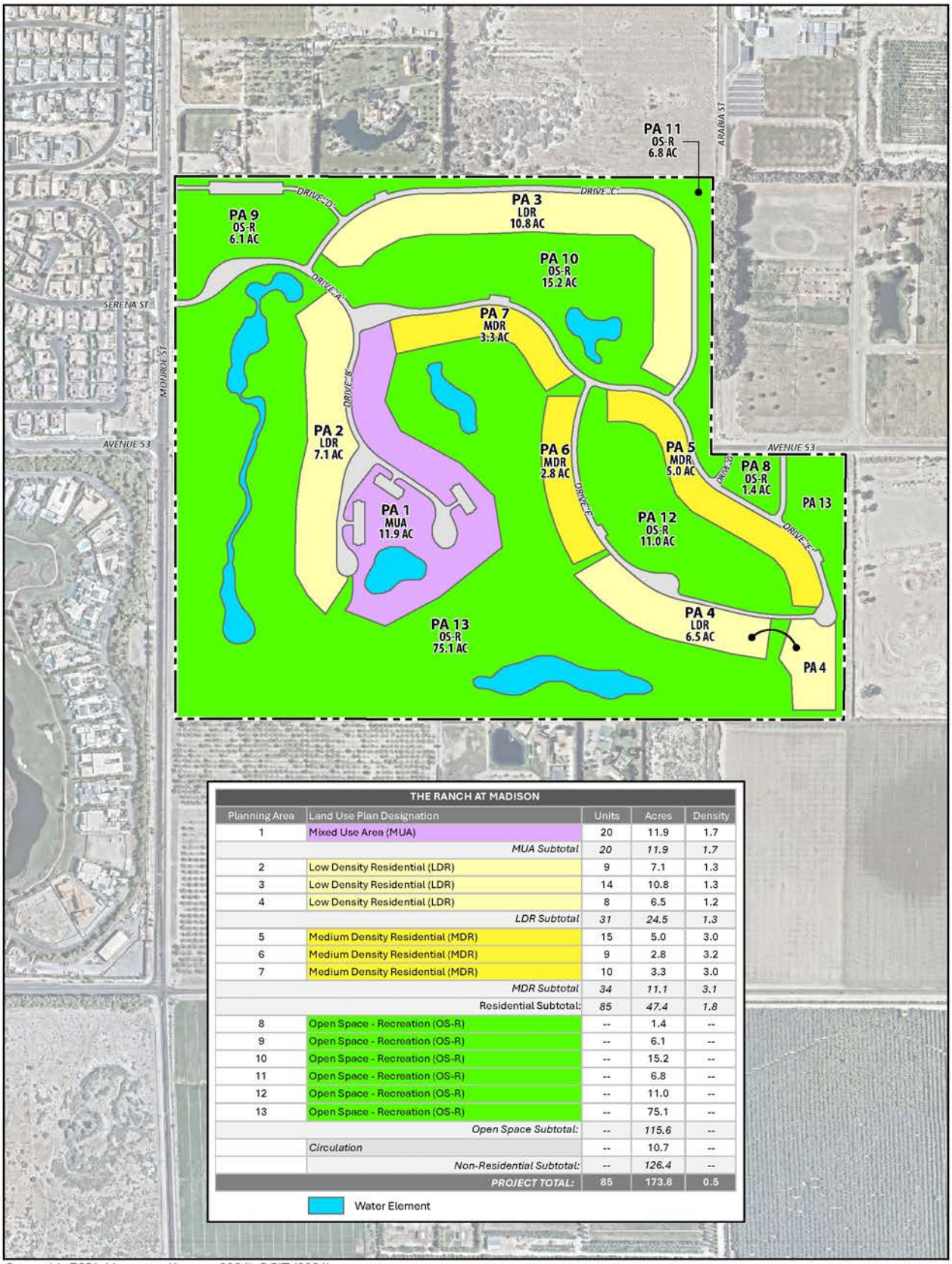
Attachments

Appendix A – Riverside County TIA Guidelines Project Scoping Form

Appendix B – Project VMT Screening Memo

Appendix A

Figure 1: Proposed Project Site Plan



THE RANCH AT MADISON				
Planning Area	Land Use Plan Designation	Units	Acres	Density
1	Mixed Use Area (MUA)	20	11.9	1.7
	MUA Subtotal	*20*	*11.9*	*1.7*
2	Low Density Residential (LDR)	9	7.1	1.3
3	Low Density Residential (LDR)	14	10.8	1.3
4	Low Density Residential (LDR)	8	6.5	1.2
	LDR Subtotal	*31*	*24.5*	*1.3*
5	Medium Density Residential (MDR)	15	5.0	3.0
6	Medium Density Residential (MDR)	9	2.8	3.2
7	Medium Density Residential (MDR)	10	3.3	3.0
	MDR Subtotal	*34*	*11.1*	*3.1*
	Residential Subtotal:	*85*	*47.4*	*1.8*
8	Open Space - Recreation (OS-R)	--	1.4	--
9	Open Space - Recreation (OS-R)	--	6.1	--
10	Open Space - Recreation (OS-R)	--	15.2	--
11	Open Space - Recreation (OS-R)	--	6.8	--
12	Open Space - Recreation (OS-R)	--	11.0	--
13	Open Space - Recreation (OS-R)	--	75.1	--
	Open Space Subtotal:	--	*115.6*	--
	Circulation	--	10.7	--
	Non-Residential Subtotal:	--	*126.4*	--
	PROJECT TOTAL:	**85**	**173.8**	**0.5**

Water Element

Source(s): ESRI, Nearmap (August 2024), RCIT (2024)
Composite: RTM (09-05-2025)

0 175 350 700 Feet

Figure 2-1

Specific Land Use Plan

Appendix B

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. This analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated February 2005.

Case No. TS2400006
Related Cases-
SP No. 408
EIR No. CEQA250008
GPA No. 250010
CZ No. 250012
Project Name: The Ranch at Madison

Address: Project site is located NE and SE of Monroe Street and Avenue 53 in the unicorporated community of Vista Santa Rosa southwest of the City of Indio and the City of La Quinta, California.

	Consultant	Developer
Name:	Fehr and Peers	Discovery MM Club, LLC
Address:	101 Pacifica, Ste 300	Attn: John Gamlin
	Irvine, CA 92618	53035 Meriweather Way
Telephone:	(949) 859-3200	La Quinta, CA 92253 (760) 238-2443

A. Trip Generation Source: ITE Trip Generation Manual, 12th Edition (2025)

Current GP Land Use	Agriculture and Rural Community-Low Density Residential	Proposed	LDR, MDR, and Open Space Recreation
Current Zoning	A-1-20, R-1, R-A-2-20,000, R-5	Proposed	Specific Plan No. 408

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				24	54	78
PM Trips				60	39	99

Internal Trip Allowence ● Yes O No (50 (see trip gen attachemnet) % Trip Discount)
Pass-By Trip Allowence O Yes ● No (_____% Trip Discount)

A passerby trip discount of 25% is allowed for appropriate land uses. The passerby trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: N 55 % S 5 % E 10 % W 30 %
(attach exhibit for detailed assignment)

C. Background Traffic

Project Build-out Year: 2030
Phase Year (s):
Annual Ambient Growth Rate: 2%

Other area projects to be analyzed:

Model/Forecast Methodology: RIVCOM: CY 2045

Exhibit B-Scoping Agreement-Page 2

D. Study Intersections: (Note: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

1. Monroe St and Ave 50	6. Monroe St and Ave 53
2. Monroe St and 52nd Ave	7. East Entry/Exit (Drive G) and Ave 53
3. Arabia St and 52nd Ave	8.
4. Jackson St and 52nd Ave	9.
5. Monroe St and West Entry/Exit (Drive A)	10.

E. Study Roadway Segments: (Note: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

F. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ● Yes O No

If so, name City Jurisdiction: La Quinta, California

G. Site Plan (Please attach reduced copy)

H. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline)
(to be filled out by Transportation Department)

Note: An additional section will be added to the analysis that addresses potential traffic impacts with and without the roadway vacation of Ave 53; These scenarios are visualized in Figure 6, 7, and 8.

I. Existing Conditions:

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts:

***Note* Traffic Study Submittal Form and appropriate fee must be submitted with this form.**

Recommended by:

Consultant's Representative

10/20/2025
Date:

Approved Scoping Agreement:

Eva Covarrubias
Riverside County Transportation Department

10/23/2025
Date

Scoping Agreement Submitted on 10/20/2025

Revised on

Revised 04/2005

Figure 1: Project Trip Generation Estimates (ITE 12th Edition)

Land use	Units	ITE Code	Quantity	Daily Rate	AM Peak Hour Rate			PM Peak Hour Rate			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
					Rate	In	Out	Rate	In	Out		Total	In	Out	Total	In	Out
Single-Family Detached Housing	Dwelling Units	210	85	9.09	0.75	27%	73%	0.97	63%	37%	773	64	17	47	82	52	30
Golf Course	Holes	430	9	30.38	2.96	52%	48%	3.68	47%	53%	273	27	14	13	33	16	17
Golf Course Trip Reduction Rate: 50%											137	14	7	7	17	8	9
										Totals:	**910**	**78**	**24**	**54**	**99**	**60**	**39**

Based on the Project proposal, the Golf Course will be exclusive for residents and their guests. As a result, a 50% reduction rate was applied to the Golf Course since the Land Use Code only accounts for Public Golf Courses. We still anticipate some trips to be made for employees of the golf course and guests who will utilize the facility.

Figure 2: Regional Trip Distribution



Trip Distribution Justification

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the project site. Surrounding land uses, existing roadway characteristics, traffic forecasts from Riverside County Transportation Model (RIVCOM) and local knowledge were used to develop the trip distribution. The project trip distribution is described below and presented in Figure 2 and 3.

-55% NB traveling towards I-10

-30% WB traveling on Highway 111

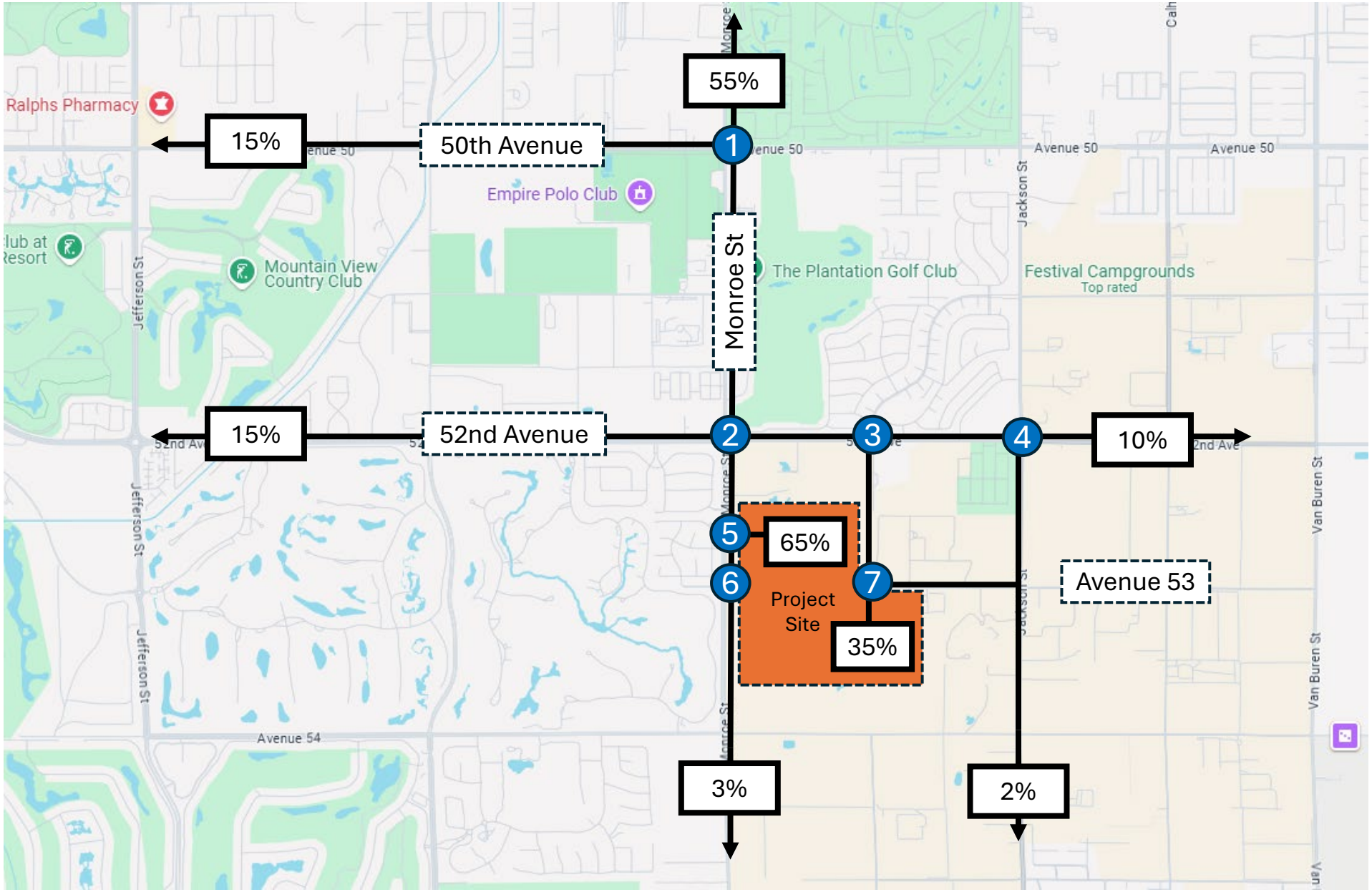
-10% EB traveling towards the City of Coachella

-5% SB traveling towards Vista Santa Rosa

= Project Site

% = Trip Distribution Rate

Figure 3: Project Trip Distribution (Alternative #1)



Study Intersection

1. Monroe St and Ave 50
2. Monroe St and 52nd Ave
3. Arabia St and 52nd Ave
4. Jackson St and 52nd Ave
5. Monroe St and West Entry/Exit (Drive A)
6. Monroe St and Ave 53
7. East Entry/Exit (Drive G) and Ave 53

(#) = Study Intersection

= Project Site

(%) = Trip Distribution Rate

= Street Name

The Project site features two entry/exit driveways. The West Driveway will be the main driveway (residents, guests, and golf course) and the East Driveway will serve as a secondary primarily for residents and guests. Given this knowledge, we anticipate 65% of trips to be made at the West Driveway and the remaining 35% to be made at the East Driveway.

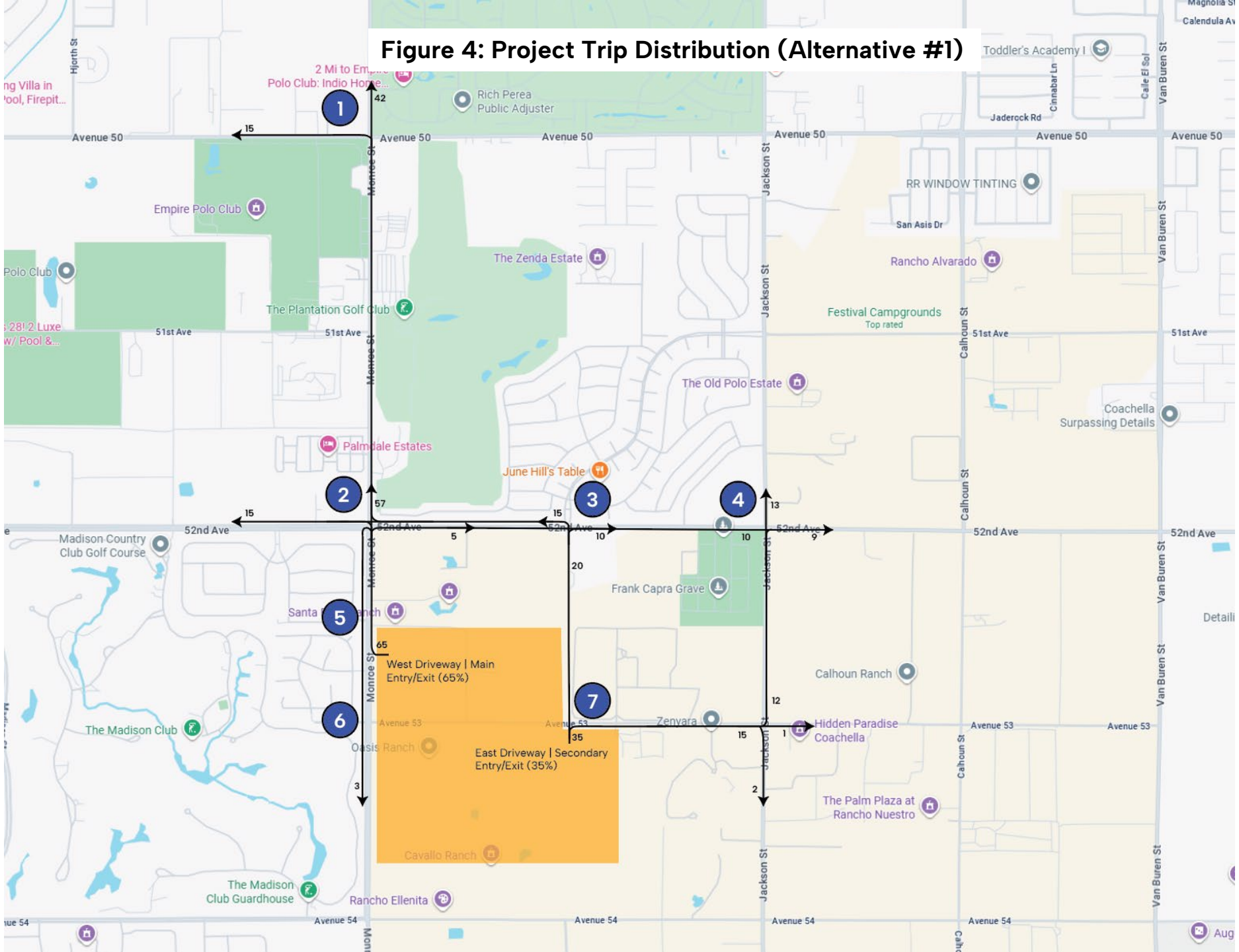

Figure 4: Project Trip Distribution (Alternative #1)
1
2
3
4
5
6
7
42
15
57
15
5
15
10
10
13
9
20
65
35
12
15
1
2
3
West Driveway | Main Entry/Exit (65%)
East Driveway | Secondary Entry/Exit (35%)
Avenue 50
Avenue 52nd Ave
Avenue 51st Ave
Avenue 53
Avenue 54
Monroe St
Jackson St
Calhoun St
Van Buren St
Empire Polo Club
The Plantation Golf Club
The Zenda Estate
Palmdale Estates
June Hill's Table
The Old Polo Estate
Festival Campgrounds
Top rated
Rancho Alvarado
RR WINDOW TINTING
Rich Perea Public Adjuster
Toddler's Academy I
Coachella Surpassing Details
Madison Country Club Golf Course
Frank Capra Grave
Calhoun Ranch
Zenyara
Hidden Paradise Coachella
The Palm Plaza at Rancho Nuestro
The Madison Club
Oasis Ranch
Cavallo Ranch
The Madison Club Guardhouse
Rancho Ellenita
Jaderock Rd
San Asis Dr

Figure 5: Project Site Plan – Alternative #1



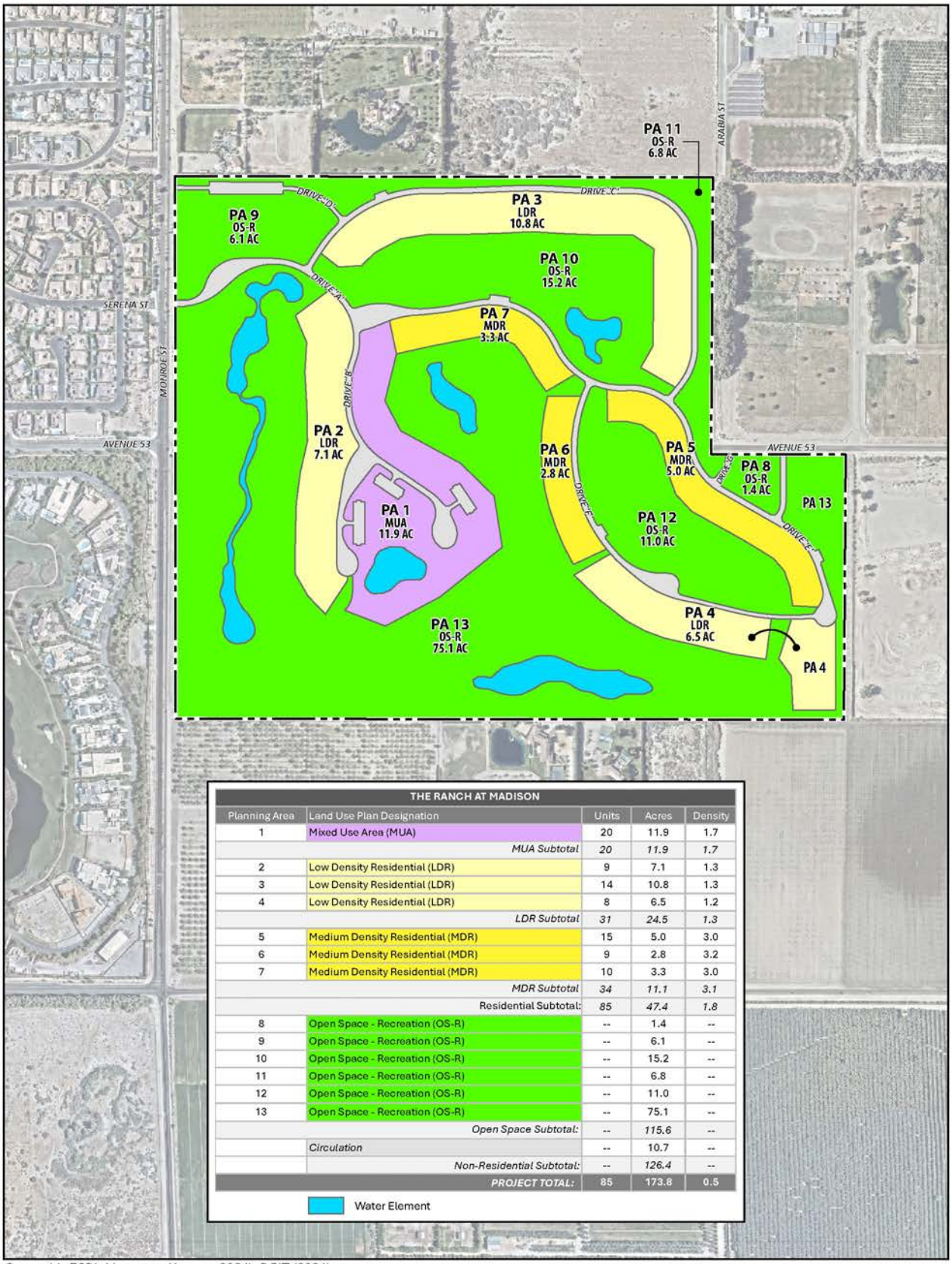
Source(s): VITA, Inc. (08-28-2025)

Not to Scale

Figure 2-2

Conceptual Vehicular Circulation Plan

X-X



THE RANCH AT MADISON				
Planning Area	Land Use Plan Designation	Units	Acres	Density
1	Mixed Use Area (MUA)	20	11.9	1.7
	MUA Subtotal	*20*	*11.9*	*1.7*
2	Low Density Residential (LDR)	9	7.1	1.3
3	Low Density Residential (LDR)	14	10.8	1.3
4	Low Density Residential (LDR)	8	6.5	1.2
	LDR Subtotal	*31*	*24.5*	*1.3*
5	Medium Density Residential (MDR)	15	5.0	3.0
6	Medium Density Residential (MDR)	9	2.8	3.2
7	Medium Density Residential (MDR)	10	3.3	3.0
	MDR Subtotal	*34*	*11.1*	*3.1*
	Residential Subtotal:	*85*	*47.4*	*1.8*
8	Open Space - Recreation (OS-R)	--	1.4	--
9	Open Space - Recreation (OS-R)	--	6.1	--
10	Open Space - Recreation (OS-R)	--	15.2	--
11	Open Space - Recreation (OS-R)	--	6.8	--
12	Open Space - Recreation (OS-R)	--	11.0	--
13	Open Space - Recreation (OS-R)	--	75.1	--
	Open Space Subtotal:	--	*115.6*	--
	Circulation	--	10.7	--
	Non-Residential Subtotal:	--	*126.4*	--
	PROJECT TOTAL:	**85**	**173.8**	**0.5**

Water Element

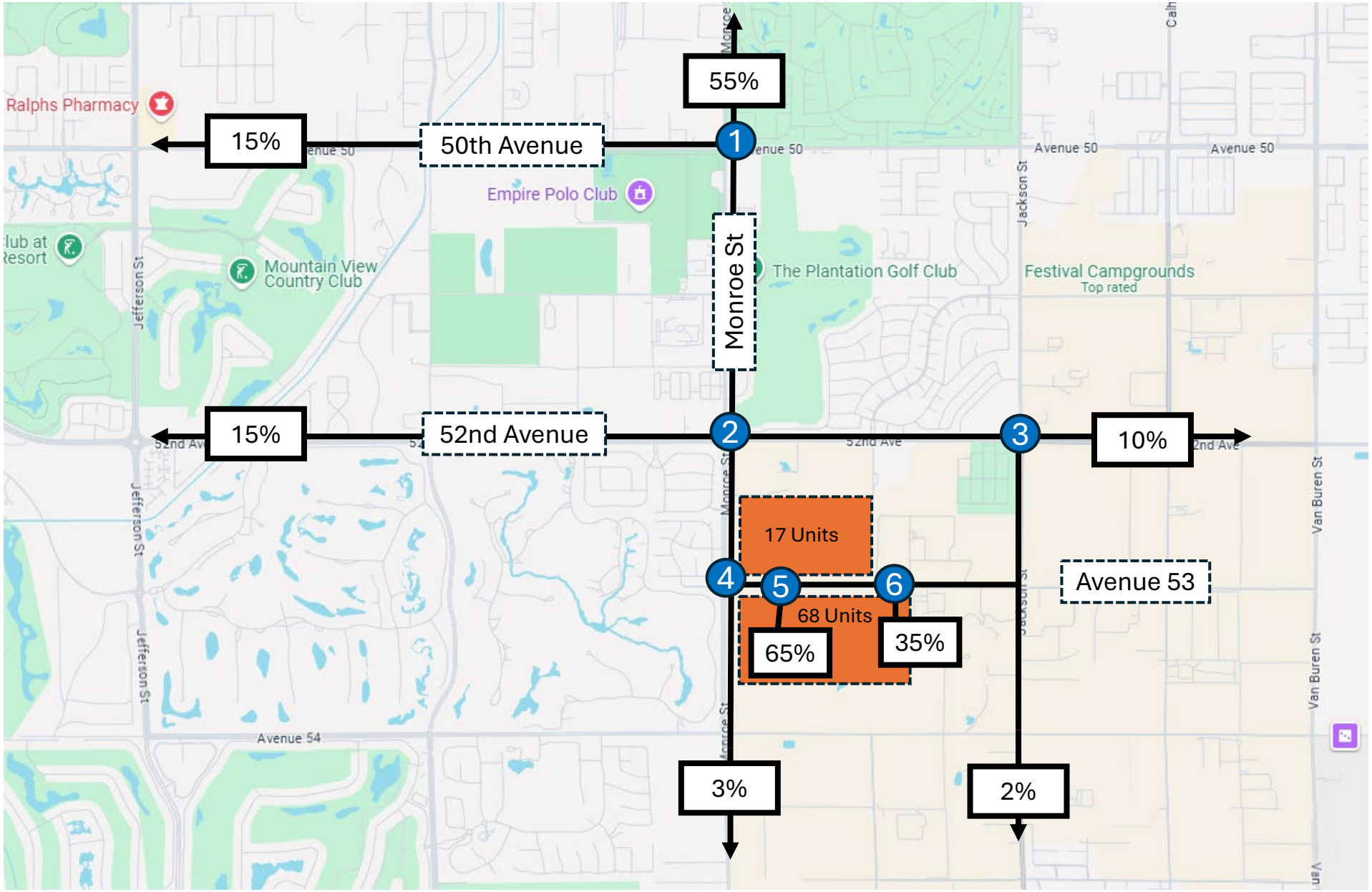
Source(s): ESRI, Nearmap (August 2024), RCIT (2024)
Composite: RTM (09-05-2025)

0 175 350 700 Feet

Figure 2-1

Specific Land Use Plan

Figure 6: Project Trip Distribution (Alternative #2)



Study Intersection

1. Monroe St and Ave 50
2. Monroe St and 52nd Ave
3. Jackson St and 52nd Ave
4. Monroe St and Ave 53
5. Ave 53 and West Driveway
6. Ave 53 and East Driveway

(#) = Study Intersection

= Project Site

% = Trip Distribution Rate

= Street Name

The Project site features two entry/exit driveways. The West Driveway will be the main driveway (residents, guests, and golf course) and the East Driveway will serve as a secondary primarily for residents and guests. A bridge/tunnel will connect the 17 units n/o Avenue 53 to the 68 units s/o Avenue 53, as well as the entry/exits. Given this knowledge, we anticipate 65% of trips to be made at the West Driveway and the remaining 35% to be made at the East Driveway.

Figure 7: Project Trip Distribution (Alternative #2)

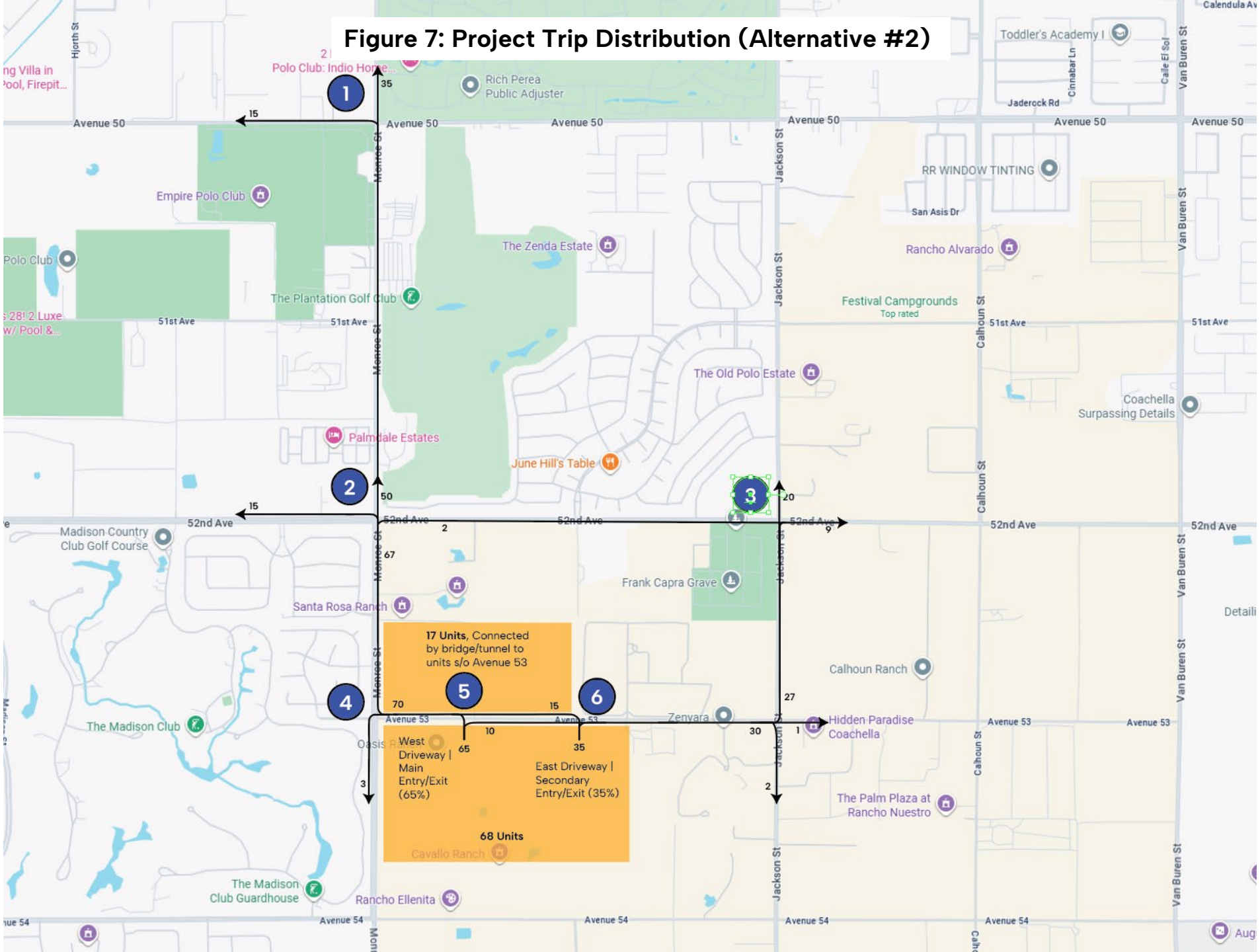
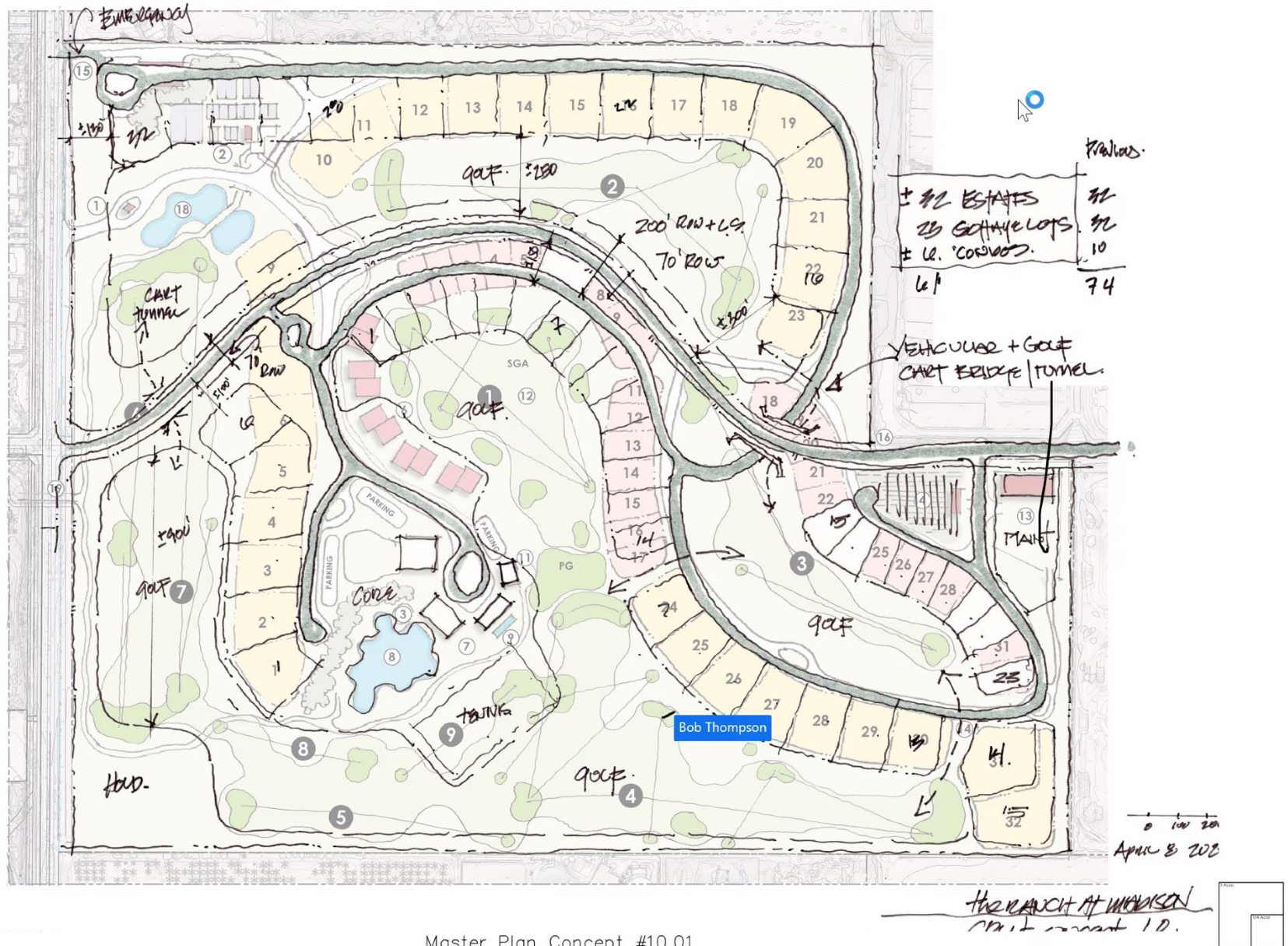


Figure 8: Project Site Plan (Alternative #2 Concept)



Appendix D: Existing (2025) Peak Hour Traffic Counts

INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, Feb 6, 25

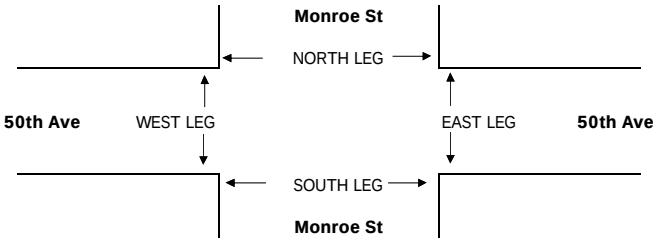
LOCATION: Indio
NORTH & SOUTH: Monroe St
EAST & WEST: 50th Ave

PROJECT #: SC5177
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

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

	NORTHBOUND Monroe St			SOUTHBOUND Monroe St			EASTBOUND 50th Ave			WESTBOUND 50th Ave				U-TURNS				
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM 7:00 AM	6	48	3	17	85	15	1	12	8	12	66	18	291	0	0	0	0	0
7:15 AM	11	69	9	20	74	8	6	25	9	9	107	35	382	0	0	0	0	0
7:30 AM	10	69	9	30	67	8	7	33	16	16	118	48	431	0	0	0	0	0
7:45 AM	15	79	15	35	85	16	2	56	12	15	123	44	497	0	0	0	0	0
8:00 AM	16	89	10	27	79	14	3	40	29	19	127	55	508	0	0	0	0	0
8:15 AM	13	98	5	32	88	7	12	53	13	10	80	31	442	0	0	0	0	0
8:30 AM	6	88	7	21	85	12	10	49	11	11	74	25	399	0	0	0	0	0
8:45 AM	7	96	13	15	68	5	10	33	13	14	55	30	359	0	0	0	0	0
VOLUMES	84	636	71	197	631	85	51	301	111	106	750	286	3,309	0	0	0	0	0
APPROACH %	11%	80%	9%	22%	69%	9%	11%	65%	24%	9%	66%	25%						
APP/DEPART	791	/	973	913	/	848	463	/	569	1,142	/	919	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	54	335	39	124	319	45	24	182	70	60	448	178	1,878	0	0	0	0	
APPROACH %	13%	78%	9%	25%	65%	9%	9%	66%	25%	9%	65%	26%						
PEAK HR FACTOR		0.922			0.897			0.885			0.853		0.924					
APP/DEPART	428	/	537	488	/	449	276	/	345	686	/	547	0					
PM 4:00 PM	15	112	31	40	79	7	10	96	13	2	59	24	488	0	0	0	0	0
4:15 PM	12	87	31	20	81	13	12	88	14	13	67	29	467	0	0	0	0	0
4:30 PM	16	79	13	33	103	8	16	94	17	7	70	36	492	0	0	0	0	0
4:45 PM	12	86	18	47	61	13	6	95	10	9	74	26	457	0	0	0	0	0
5:00 PM	14	86	19	50	102	13	4	81	13	5	69	30	486	0	0	0	0	0
5:15 PM	14	94	16	37	64	7	7	91	10	7	67	27	441	0	0	0	0	0
5:30 PM	20	107	11	35	79	8	14	89	9	1	63	33	469	0	0	0	0	0
5:45 PM	12	70	20	45	55	12	11	104	14	12	59	40	454	0	0	0	0	0
VOLUMES	115	721	159	307	624	81	80	738	100	56	528	245	3,754	0	0	0	0	0
APPROACH %	12%	72%	16%	30%	62%	8%	9%	80%	11%	7%	64%	30%						
APP/DEPART	995	/	1,046	1,012	/	780	918	/	1,204	829	/	724	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	55	364	93	140	324	41	44	373	54	31	270	115	1,904	0	0	0	0	
APPROACH %	11%	71%	18%	28%	64%	8%	9%	79%	11%	7%	65%	28%						
PEAK HR FACTOR		0.810			0.877			0.927			0.920		0.967					
APP/DEPART	512	/	523	505	/	409	471	/	606	416	/	366	0					



INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, Feb 6, 25

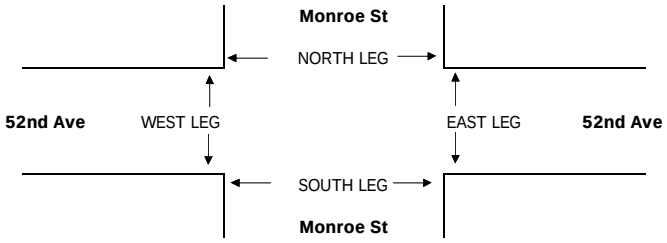
LOCATION: Indio
NORTH & SOUTH: Monroe St
EAST & WEST: 52nd Ave

PROJECT #: SC5177
LOCATION #: 1
CONTROL: STOP ALL

NOTES:

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

		NORTHBOUND (Monroe St)			SOUTHBOUND (Monroe St)			EASTBOUND (52nd Ave)			WESTBOUND (52nd Ave)				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	12	35	0	9	65	14	10	24	25	13	88	15	310	0	0	0	0	0
	7:15 AM	16	45	2	12	59	14	19	41	18	7	77	24	334	0	0	0	0	0
	7:30 AM	17	40	1	9	48	17	28	47	14	6	95	15	337	0	0	0	0	0
	7:45 AM	16	49	2	22	64	21	21	48	21	10	97	30	401	0	0	0	0	0
	8:00 AM	10	66	3	27	68	20	20	42	22	5	83	36	402	0	0	0	0	0
	8:15 AM	13	48	5	29	59	15	22	42	23	4	92	40	392	0	0	1	0	1
	8:30 AM	14	45	7	21	51	13	22	53	17	10	84	34	371	0	0	0	0	0
	8:45 AM	8	41	10	26	43	14	19	49	23	15	71	45	364	0	0	0	0	0
	VOLUMES	106	369	30	155	457	128	161	346	163	70	687	239	2,912	0	0	1	0	1
	APPROACH %	21%	73%	6%	21%	62%	17%	24%	52%	24%	7%	69%	24%						
	APP/DEPART	505	/	769	740	/	690	671	/	531	996	/	922	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	53	208	17	99	242	69	85	185	83	29	356	140	1,567	0	0	1	0	
	APPROACH %	19%	75%	6%	24%	59%	17%	24%	52%	23%	6%	68%	27%						
	PEAK HR FACTOR		0.880			0.891			0.962			0.958		0.975					
	APP/DEPART	278	/	433	410	/	354	354	/	301	525	/	479	0					
PM	4:00 PM	13	62	6	39	38	18	27	85	19	24	54	60	445	0	0	0	0	0
	4:15 PM	10	48	7	30	42	18	16	78	17	36	47	42	391	0	0	0	0	0
	4:30 PM	15	43	5	38	56	19	17	85	15	7	61	30	391	0	0	0	0	0
	4:45 PM	22	58	3	19	45	9	19	94	18	7	64	39	397	1	0	0	0	1
	5:00 PM	11	47	5	40	45	13	22	74	26	3	56	28	370	0	0	0	0	0
	5:15 PM	14	67	3	31	33	22	31	96	21	4	75	34	431	0	0	0	0	0
	5:30 PM	16	54	0	31	38	15	26	95	13	8	72	31	399	0	0	0	0	0
	5:45 PM	20	57	1	19	39	14	16	74	11	5	60	23	339	0	0	0	0	0
	VOLUMES	121	436	30	247	336	128	174	681	140	94	489	287	3,164	1	0	0	0	1
	APPROACH %	21%	74%	5%	35%	47%	18%	17%	68%	14%	11%	56%	33%						
	APP/DEPART	588	/	897	711	/	571	995	/	958	870	/	738	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	60	211	21	126	181	64	79	342	69	74	226	171	1,625	1	0	0	0	
	APPROACH %	20%	72%	7%	34%	49%	17%	16%	70%	14%	16%	48%	36%						
	PEAK HR FACTOR		0.872			0.821			0.935			0.853		0.913					
	APP/DEPART	293	/	461	371	/	325	490	/	489	471	/	350	0					



INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, May 22, 25

LOCATION: Indio
NORTH & SOUTH: Arabia St
EAST & WEST: 52nd Ave

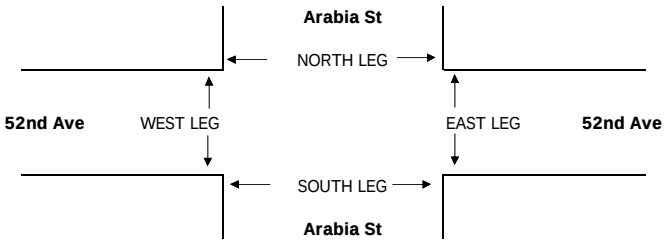
PROJECT #: SC5403
LOCATION #: 1
CONTROL: STOP N/S

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND Arabia St			SOUTHBOUND Polo Club Dr			EASTBOUND 52nd Ave			WESTBOUND 52nd Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 0	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	2	0	11	4	41	2	0	108	3	171	0	0	0	0	0
	7:15 AM	0	0	2	3	0	15	9	58	1	2	100	7	197	0	0	0	0	0
	7:30 AM	2	0	0	3	0	12	5	64	1	2	129	6	224	0	0	0	0	0
	7:45 AM	3	0	5	2	0	12	9	63	7	16	126	5	248	0	0	0	0	0
	8:00 AM	4	0	5	0	0	14	12	50	12	24	125	11	257	0	0	1	0	1
	8:15 AM	9	0	52	0	0	15	10	44	12	52	87	7	288	0	0	0	0	0
	8:30 AM	6	0	53	2	0	24	12	59	18	68	68	4	314	0	0	0	0	0
	8:45 AM	12	0	88	0	0	17	20	57	20	104	76	6	400	0	0	0	0	0
	VOLUMES	36	0	205	12	0	120	81	436	73	268	819	49	2,100	0	0	1	0	1
	APPROACH %	15%	0%	85%	9%	0%	91%	14%	74%	12%	24%	72%	4%						
	APP/DEPART	241	/	130	132	/	341	591	/	653	1,136	/	976	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	31	0	198	2	0	70	54	210	62	248	356	28	1,260	0	0	1	0	
	APPROACH %	14%	0%	86%	3%	0%	97%	17%	64%	19%	39%	56%	4%						
	PEAK HR FACTOR		0.573			0.692			0.843			0.849		0.788					
	APP/DEPART	229	/	82	72	/	310	327	/	410	632	/	458	0					
PM	4:00 PM	12	1	55	3	0	15	17	104	9	20	77	5	318	0	0	0	0	0
	4:15 PM	4	0	6	4	0	15	18	71	2	4	71	6	201	0	0	0	0	0
	4:30 PM	6	0	1	1	0	9	23	74	0	1	67	2	184	0	0	0	0	0
	4:45 PM	2	0	0	1	0	10	12	104	0	4	74	3	210	0	0	0	0	0
	5:00 PM	1	0	0	7	0	10	12	95	3	3	64	5	200	0	0	0	0	0
	5:15 PM	2	0	0	1	0	6	12	106	5	0	73	2	207	0	0	1	0	1
	5:30 PM	2	0	2	1	0	8	15	105	3	14	59	2	211	0	0	0	0	0
	5:45 PM	1	0	0	1	0	5	10	88	5	13	56	3	182	0	0	0	0	0
	VOLUMES	30	1	64	19	0	78	119	747	27	59	541	28	1,714	0	0	1	0	1
	APPROACH %	32%	1%	67%	20%	0%	80%	13%	84%	3%	9%	86%	4%						
	APP/DEPART	95	/	148	97	/	86	894	/	830	628	/	650	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	24	1	62	9	0	49	70	353	11	29	289	16	913	0	0	0	0	
	APPROACH %	28%	1%	71%	16%	0%	84%	16%	81%	3%	9%	87%	5%						
	PEAK HR FACTOR		0.320			0.763			0.835			0.819		0.718					
	APP/DEPART	87	/	87	58	/	40	434	/	424	334	/	362	0					



INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, May 22, 25

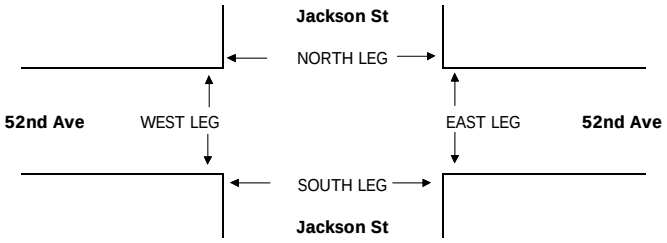
LOCATION: Indio
NORTH & SOUTH: Jackson St
EAST & WEST: 52nd Ave

PROJECT #: SC5403
LOCATION #: 5
CONTROL: STOP ALL

NOTES:

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

		NORTHBOUND (Jackson St)			SOUTHBOUND (Jackson St)			EASTBOUND (52nd Ave)			WESTBOUND (52nd Ave)				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	23	54	1	4	39	23	6	35	5	0	67	6	263	0	0	0	0	0
	7:15 AM	17	40	0	6	36	20	14	34	5	2	71	8	253	0	0	0	0	0
	7:30 AM	12	46	0	10	40	24	28	40	2	2	101	12	317	0	0	0	0	0
	7:45 AM	10	36	2	11	45	37	24	51	3	1	100	17	337	0	0	0	0	0
	8:00 AM	17	33	0	12	30	38	10	42	3	0	106	11	302	0	0	0	0	0
	8:15 AM	9	45	1	8	27	48	34	48	8	0	95	8	331	0	0	0	0	0
	8:30 AM	9	33	1	7	29	42	32	72	18	5	90	20	358	0	0	0	0	0
	8:45 AM	26	34	2	2	38	57	43	90	15	1	96	19	423	0	0	0	0	0
	VOLUMES	123	321	7	60	284	289	191	412	59	11	726	101	2,584	0	0	0	0	0
	APPROACH %	27%	71%	2%	9%	45%	46%	29%	62%	9%	1%	87%	12%						
	APP/DEPART	451	/	613	633	/	354	662	/	479	838	/	1,138	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	61	145	4	29	124	185	119	252	44	6	387	58	1,414	0	0	0	0	
	APPROACH %	29%	69%	2%	9%	37%	55%	29%	61%	11%	1%	86%	13%						
	PEAK HR FACTOR		0.847			0.871			0.701			0.964		0.836					
	APP/DEPART	210	/	322	338	/	174	415	/	285	451	/	633	0					
PM	4:00 PM	11	38	1	9	36	30	64	122	19	1	63	16	410	0	0	0	0	0
	4:15 PM	6	38	0	10	42	28	27	70	5	2	52	15	295	0	0	0	0	0
	4:30 PM	10	25	1	17	26	20	19	68	5	2	42	12	247	0	0	0	0	0
	4:45 PM	7	38	0	16	40	25	23	88	2	2	55	10	306	0	0	0	0	0
	5:00 PM	4	36	1	15	36	22	22	69	6	5	52	11	279	0	0	0	0	0
	5:15 PM	1	29	2	24	38	22	20	86	4	1	59	11	297	0	0	0	0	0
	5:30 PM	5	36	2	19	27	19	16	102	5	1	58	6	296	0	0	0	0	0
	5:45 PM	5	36	0	13	15	30	18	82	4	2	42	15	262	0	1	0	0	1
	VOLUMES	49	276	7	123	260	196	209	687	50	16	423	96	2,393	0	1	0	0	1
	APPROACH %	15%	83%	2%	21%	45%	34%	22%	73%	5%	3%	79%	18%						
	APP/DEPART	332	/	582	580	/	326	946	/	817	535	/	668	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	34	139	2	52	144	103	133	348	31	7	212	53	1,258	0	0	0	0	
	APPROACH %	19%	79%	1%	17%	48%	34%	26%	68%	6%	3%	78%	19%						
	PEAK HR FACTOR		0.875			0.923			0.624			0.850		0.767					
	APP/DEPART	175	/	325	299	/	182	512	/	402	272	/	349	0					



INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, Dec 11, 25

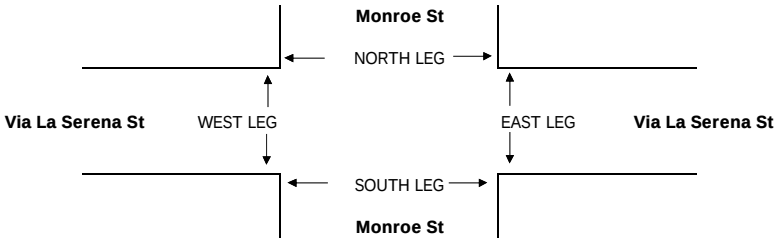
LOCATION: Indio
NORTH & SOUTH: Monroe St
EAST & WEST: Via La Serena St

PROJECT #: SC5745
LOCATION #: 3
CONTROL: STOP E

NOTES:

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

		NORTHBOUND (Monroe St)			SOUTHBOUND (Monroe St)			EASTBOUND (Via La Serena St)			WESTBOUND (Via La Serena St)				U-TURNS				
	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
		X	1	X	X	2	1	X	X	1	X	X	X		0	0	0	0	
AM	7:00 AM	0	52	0	0	99	2	0	0	0	0	0	0	153	0	0	0	0	0
	7:15 AM	0	65	0	0	58	0	0	0	0	0	0	0	123	0	0	0	0	0
	7:30 AM	0	45	0	0	76	3	0	0	0	0	0	0	124	0	0	0	0	0
	7:45 AM	0	67	0	0	64	3	0	0	3	0	0	0	137	0	0	0	0	0
	8:00 AM	0	68	0	0	70	3	0	0	3	0	0	0	144	0	0	0	0	0
	8:15 AM	0	56	0	0	69	2	0	0	0	0	0	0	127	0	0	0	0	0
	8:30 AM	0	67	0	0	67	3	0	0	2	0	0	0	139	0	0	0	0	0
	8:45 AM	0	45	0	0	51	3	0	0	3	0	0	0	102	0	0	0	0	0
	VOLUMES	0	465	0	0	554	19	0	0	11	0	0	0	1,049	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	97%	3%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	465	/	465	573	/	565	11	/	0	0	/	19	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	0	258	0	0	270	11	0	0	8	0	0	0	547	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	96%	4%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.949			0.962			0.667			0.000		0.950					
	APP/DEPART	258	/	258	281	/	278	8	/	0	0	/	11	0					
PM	4:00 PM	0	66	0	0	78	1	0	0	1	0	0	0	146	0	0	0	0	0
	4:15 PM	0	46	0	0	55	3	0	0	2	0	0	0	106	0	0	0	0	0
	4:30 PM	0	61	0	0	56	4	0	0	2	0	0	0	123	0	0	0	0	0
	4:45 PM	0	64	0	0	51	3	0	0	1	0	0	0	119	0	0	0	0	0
	5:00 PM	0	67	0	0	47	4	0	0	2	0	0	0	120	0	0	0	0	0
	5:15 PM	0	53	0	0	59	3	0	0	4	0	0	0	119	0	0	0	0	0
	5:30 PM	0	62	0	0	37	2	0	0	0	0	0	0	101	0	0	0	0	0
	5:45 PM	0	43	0	0	38	6	0	0	0	0	0	0	87	0	0	0	0	0
	VOLUMES	0	462	0	0	421	26	0	0	12	0	0	0	921	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	94%	6%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	462	/	462	447	/	433	12	/	0	0	/	26	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	237	0	0	240	11	0	0	6	0	0	0	494	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	96%	4%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.898			0.794			0.750			0.000		0.846					
	APP/DEPART	237	/	237	251	/	246	6	/	0	0	/	11	0					



INTERSECTION TURNING MOVEMENT COUNTS

T112224

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

DATE: Thu, Feb 6, 25

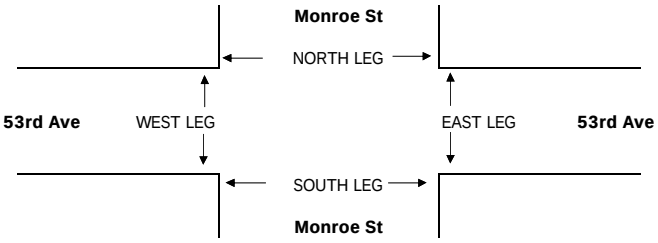
LOCATION: Indio
NORTH & SOUTH: Monroe St
EAST & WEST: 53rd Ave

PROJECT #: SC5177
LOCATION #: 3
CONTROL: STOP E/W

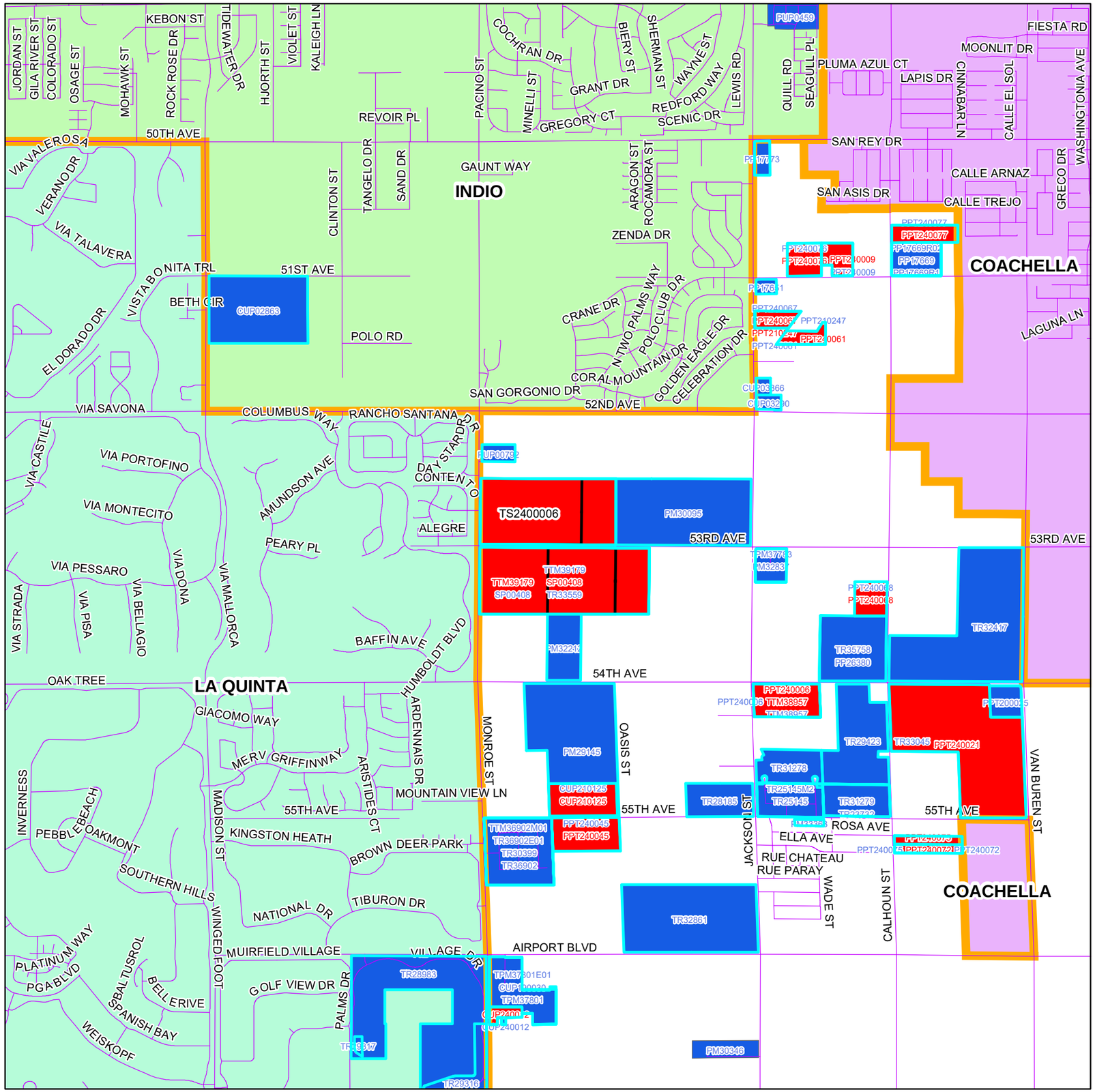
NOTES:

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

		NORTHBOUND (Monroe St)			SOUTHBOUND (Monroe St)			EASTBOUND (53rd Ave)			WESTBOUND (53rd Ave)				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 0.5	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	41	1	3	105	0	1	0	6	7	0	8	174	5	1	0	0	6
	7:15 AM	0	51	1	1	80	3	7	0	1	1	0	7	152	0	0	0	0	0
	7:30 AM	1	50	1	1	65	0	5	0	1	1	0	7	132	0	0	0	0	0
	7:45 AM	0	52	0	6	84	1	6	0	2	2	0	6	159	0	0	0	0	0
	8:00 AM	0	68	0	3	82	2	3	0	2	1	0	10	171	0	0	0	0	0
	8:15 AM	0	53	0	2	83	1	1	0	1	0	0	11	152	0	0	0	0	0
	8:30 AM	0	63	3	4	71	0	1	0	1	2	0	8	153	0	0	0	0	0
	8:45 AM	0	47	0	3	74	3	6	0	2	0	0	6	141	0	0	0	0	0
	VOLUMES	3	425	6	23	644	10	30	0	16	14	0	63	1,240	5	1	0	0	6
	APPROACH %	1%	97%	1%	3%	95%	1%	65%	0%	35%	18%	0%	82%						
	APP/DEPART	439	/	519	678	/	679	46	/	29	77	/	13	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	0	236	3	15	320	4	11	0	6	5	0	35	635	0	0	0	0	
	APPROACH %	0%	99%	1%	4%	94%	1%	65%	0%	35%	13%	0%	88%						
	PEAK HR FACTOR		0.879			0.931			0.531			0.909		0.928					
	APP/DEPART	239	/	282	339	/	331	17	/	18	40	/	4	0					
PM	4:00 PM	0	80	3	15	59	1	2	0	1	0	0	4	165	0	0	0	0	0
	4:15 PM	1	54	1	23	64	0	2	0	0	0	0	10	155	0	2	0	0	2
	4:30 PM	0	61	0	5	61	1	3	1	1	0	1	5	139	0	0	0	0	0
	4:45 PM	1	71	1	5	63	3	6	0	1	0	0	4	155	0	0	0	0	0
	5:00 PM	2	57	0	7	68	1	2	0	0	0	0	4	141	0	0	0	0	0
	5:15 PM	1	82	0	6	49	1	4	0	0	0	0	0	143	0	0	0	0	0
	5:30 PM	0	64	0	6	49	1	1	0	0	3	0	3	127	0	0	0	0	0
	5:45 PM	0	71	0	5	50	3	2	0	2	0	0	2	135	0	0	0	0	0
	VOLUMES	5	540	5	72	463	11	22	1	5	3	1	32	1,162	0	2	0	0	2
	APPROACH %	1%	98%	1%	13%	84%	2%	79%	4%	18%	8%	3%	89%						
	APP/DEPART	550	/	596	548	/	471	28	/	78	36	/	17	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	2	266	5	48	247	5	13	1	3	0	1	23	616	0	2	0	0	
	APPROACH %	1%	97%	2%	16%	82%	2%	76%	6%	18%	0%	4%	96%						
	PEAK HR FACTOR		0.822			0.848			0.607			0.600		0.933					
	APP/DEPART	273	/	304	302	/	250	17	/	54	24	/	8	0					



Appendix E: Approved Cumulative Projects



The County of Riverside assumes no warranty or legal responsibility for the information contained on this map. Data and information represented on this map is subject to updates, modifications and may not be complete or appropriate for all purposes. County GIS and other sources should be queried for the most current information. Do not copy or resell this map.

N

Cities (Outline)

Search PLUS Cases

Active Major Cases (CUP, PM, PP, PUP, SP, TR)

Approved Major Cases (CUP, PM, PP, PUP, SP, TR)

0 1,000 2,000 4,000 Feet

Printed by ktsang on 6/16/10

Cumulative Projects Trip Generation

Project ID	Project Name	Case ID	Land Use	ITE Code	Quantity	Units	Trip Generation Rates							Estimated Trip Generation						
							Daily	AM			PM				AM Peak Hour Trips			PM Peak Hour Trips		
								% In	% Out	Rate	% In	% Out	Rate	Daily Trips	In	Out	Total	In	Out	Total
1	East of Monroe Residential	TR36902	Single Family Detached Housing	210	DUs	80	9.09	27%	73%	0.7	62%	38%	0.93	727	15	41	56	46	28	74
2	Calhoun St. & 54th Ave Residential	TR35758	Single Family Detached Housing	210	DUs	20	9.09	27%	73%	0.7	62%	38%	0.93	182	4	10	14	12	7	19
3	Vista Santa Rosa Village	CUP190030	Strip Retail Plaza (<40k)	822	KSF	23.35	54.45	55%	45%	3.93	50%	50%	6.29	1,271	51	41	92	74	74	147
			Convenience Store/Gas Station - GFA (2-4k)	945	Vehicle fueling positions	16	211.05	50%	50%	13.65	50%	50%	15.85	3,377	109	109	218	127	127	254
			Fast-Food Restaurant with Drive-Through Window	934	KSF	2.4	448.12	51%	49%	33.24	52%	48%	31.6	1,075	41	39	80	40	36	76
			Assisted Living	254	KSF	158.8	4.19	75%	25%	0.32	32%	68%	0.38	665	38	13	51	19	41	60
													Total	**6,388**	**239**	**202**	**441**	**260**	**278**	**537**
4	Quick-Crete Products Facility	PPT250012	Manufacturing	140	1000 Sq. Ft. GFA	100	4.27	75%	25%	0.51	29%	71%	0.63	427	38	13	51	18	45	63
5	Townhomes	PPT240006	Multifamily Housing (Low-Rise)	220	DUs	158	6.21	24%	76%	0.41	62%	38%	0.52	981	16	49	65	51	31	82
6	Jordan Ministries Church	PPT200025	Church	560	KSF	38.8	6.78	62%	38%	0.37	41%	59%	0.43	263	9	5	14	7	10	17
7	Gas Station	CUP180019	Convenience Store/Gas Station - VFP (16-24)	945	1000 Sq Ft GFA	5.3	642.41	51%	49%	64.97	50%	50%	61.09	3,405	175	169	344	162	162	324
8	Mobile Home Park	CUP 3731	Mobile Home Park	240	DUs	40	7.87	31%	69%	0.26	62%	38%	0.46	315	3	7	10	11	7	18

Appendix F: LOS and 95th Percentile Queue Summary Sheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	182	70	60	448	178	54	335	39	124	319	45
Future Volume (veh/h)	24	182	70	60	448	178	54	335	39	124	319	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		0.97
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	198	30	65	487	78	59	364	22	135	347	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	634	528	459	634	699	124	639	38	193	763	53
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.07	0.19	0.19	0.11	0.23	0.23
Sat Flow, veh/h	845	1870	1557	1149	1870	1557	1781	3397	204	1781	3365	231
Grp Volume(v), veh/h	26	198	30	65	487	78	59	190	196	135	182	189
Grp Sat Flow(s),veh/h/ln	845	1870	1557	1149	1870	1557	1781	1777	1824	1781	1777	1819
Q Serve(g_s), s	1.3	3.5	0.6	2.0	10.5	1.3	1.4	4.4	4.4	3.3	4.0	4.0
Cycle Q Clear(g_c), s	11.8	3.5	0.6	5.5	10.5	1.3	1.4	4.4	4.4	3.3	4.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.13
Lane Grp Cap(c), veh/h	249	634	528	459	634	699	124	334	343	193	403	413
V/C Ratio(X)	0.10	0.31	0.06	0.14	0.77	0.11	0.48	0.57	0.57	0.70	0.45	0.46
Avail Cap(c_a), veh/h	420	1013	843	692	1013	1015	374	962	988	374	962	985
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	18.6	11.1	10.1	13.1	13.4	7.3	20.3	16.7	16.7	19.5	15.1	15.1
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.1	1.7	0.1	2.8	1.5	1.5	4.5	0.8	0.8
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	0.2	1.0	0.1	0.4	3.3	0.3	0.6	1.5	1.6	1.3	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.8	11.3	10.1	13.2	15.1	7.3	23.1	18.2	18.2	24.0	15.9	15.9
LnGrp LOS	B	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		254			630			445			506	
Approach Delay, s/veh		11.9			13.9			18.9			18.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	14.0		20.8	8.6	15.8		20.8				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.3	6.4		13.8	3.4	6.0		12.5				
Green Ext Time (p_c), s	0.1	1.8		0.7	0.0	1.7		2.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	22.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	185	83	29	356	140	53	208	17	99	242	69
Future Vol, veh/h	85	185	83	29	356	140	53	208	17	99	242	69
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	191	86	30	367	144	55	214	18	102	249	71
Number of Lanes	1	1	1	1	2	0	0	1	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay, s/veh	18.3	24.4	33.2	15.9
HCM LOS	C	C	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	75%	0%	100%	0%	0%	100%	46%	0%	100%	54%
Vol Right, %	6%	0%	0%	100%	0%	0%	54%	0%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	85	185	83	29	237	259	99	161	150
LT Vol	53	85	0	0	29	0	0	99	0	0
Through Vol	208	0	185	0	0	237	119	0	161	81
RT Vol	17	0	0	83	0	0	140	0	0	69
Lane Flow Rate	287	88	191	86	30	245	267	102	166	154
Geometry Grp	6	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.73	0.243	0.501	0.208	0.079	0.61	0.636	0.257	0.395	0.353
Departure Headway (Hd)	9.175	9.987	9.464	8.733	9.499	8.979	8.585	9.074	8.559	8.227
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	393	359	380	410	377	401	421	396	421	437
Service Time	6.94	7.761	7.238	6.506	7.268	6.748	6.353	6.833	6.318	5.985
HCM Lane V/C Ratio	0.73	0.245	0.503	0.21	0.08	0.611	0.634	0.258	0.394	0.352
HCM Control Delay, s/veh	33.2	16	21.4	13.8	13.1	24.9	25.3	15	16.8	15.4
HCM Lane LOS	D	C	C	B	B	C	D	B	C	C
HCM 95th-tile Q	5.7	0.9	2.7	0.8	0.3	3.9	4.3	1	1.9	1.6

Intersection	
Int Delay, s/veh	13.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	210	62	248	356	28	31	0	198	2	0	70
Future Vol, veh/h	54	210	62	248	356	28	31	0	198	2	0	70
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	266	78	314	451	35	39	0	251	3	0	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	491	0	0	349	0	0	1305	1566	315	1509	-	253
Stage 1	-	-	-	-	-	-	447	447	-	1101	-	-
Stage 2	-	-	-	-	-	-	858	1119	-	408	-	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	-	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	-	3.319
Pot Cap-1 Maneuver	1070	-	-	1208	-	-	127	111	725	91	0	747
Stage 1	-	-	-	-	-	-	590	573	-	227	0	-
Stage 2	-	-	-	-	-	-	319	281	-	620	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1065	-	-	1202	-	-	77	76	718	40	-	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	76	-	40	-	-
Stage 1	-	-	-	-	-	-	550	533	-	167	-	-
Stage 2	-	-	-	-	-	-	206	207	-	376	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.3	3.55	56.11	13.01
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	336	1065	-	-	1202	-	-	40	740
HCM Lane V/C Ratio	0.862	0.064	-	-	0.261	-	-	0.063	0.12
HCM Control Delay (s/veh)	56.1	8.6	-	-	9	-	-	100	10.5
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	7.9	0.2	-	-	1.1	-	-	0.2	0.4

Intersection	
Intersection Delay, s/veh	19.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	252	44	6	387	58	61	145	4	29	124	185
Future Vol, veh/h	119	252	44	6	387	58	61	145	4	29	124	185
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	142	300	52	7	461	69	73	173	5	35	148	220
Number of Lanes	1	2	0	1	2	0	1	2	0	0	2	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay, s/veh	17.3	25.9	15.2	16.9
HCM LOS	C	D	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	41%	0%
Vol Thru, %	0%	100%	92%	0%	100%	66%	0%	100%	69%	59%	100%
Vol Right, %	0%	0%	8%	0%	0%	34%	0%	0%	31%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	97	52	119	168	128	6	258	187	70	83
LT Vol	61	0	0	119	0	0	6	0	0	29	0
Through Vol	0	97	48	0	168	84	0	258	129	41	83
RT Vol	0	0	4	0	0	44	0	0	58	0	0
Lane Flow Rate	73	115	62	142	200	152	7	307	223	84	98
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.198	0.297	0.16	0.358	0.478	0.354	0.018	0.726	0.513	0.212	0.244
Departure Headway (Hd)	9.804	9.304	9.25	9.106	8.606	8.365	9.009	8.509	8.292	9.122	8.916
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	387	388	395	420	430	398	427	436	394	403
Service Time	7.555	7.055	7.001	6.85	6.35	6.109	6.752	6.252	6.035	6.868	6.662
HCM Lane V/C Ratio	0.199	0.297	0.16	0.359	0.476	0.353	0.018	0.719	0.511	0.213	0.243
HCM Control Delay, s/veh	15	16	13.8	16.9	19	15.6	11.9	30.8	19.5	14.3	14.5
HCM Lane LOS	B	C	B	C	C	C	B	D	C	B	B
HCM 95th-tile Q	0.7	1.2	0.6	1.6	2.5	1.6	0.1	5.7	2.9	0.8	0.9

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑			↑↑	↱
Traffic Vol, veh/h	0	0	8	0	0	0	0	258	0	0	270	11
Future Vol, veh/h	0	0	8	0	0	0	0	258	0	0	270	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	120
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	8	0	0	0	0	272	0	0	284	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	556	556	142	-	-	272	-	0	-	-	-	0
Stage 1	284	284	-	-	-	-	-	-	-	-	-	-
Stage 2	272	272	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	-	-	6.23	-	-	-	-	-	-
Critical Hdwy Stg 1	6.53	5.53	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	3.319	-	-	-	-	-	-
Pot Cap-1 Maneuver	428	439	880	0	0	766	0	-	0	0	-	-
Stage 1	700	676	-	0	0	-	0	-	0	0	-	-
Stage 2	734	684	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	428	439	880	-	-	766	-	-	-	-	-	-
Mov Cap-2 Maneuver	428	439	-	-	-	-	-	-	-	-	-	-
Stage 1	700	676	-	-	-	-	-	-	-	-	-	-
Stage 2	734	684	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.1	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	880	-	-	-
HCM Lane V/C Ratio	-	0.01	-	-	-
HCM Control Delay (s/veh)	-	9.1	0	-	-
HCM Lane LOS	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	-

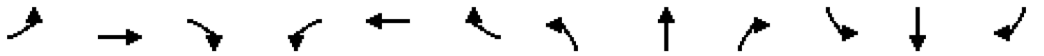
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	6	5	0	35	0	236	3	15	320	4
Future Vol, veh/h	11	0	6	5	0	35	0	236	3	15	320	4
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	6	5	0	38	0	254	3	16	344	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	642	640	184	465	641	260	353	0	0	257	0	0
Stage 1	383	383	-	255	255	-	-	-	-	-	-	-
Stage 2	259	257	-	209	386	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	373	392	827	494	392	777	1204	-	-	1306	-	-
Stage 1	612	611	-	748	695	-	-	-	-	-	-	-
Stage 2	745	694	-	774	610	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	347	386	819	482	385	774	1198	-	-	1306	-	-
Mov Cap-2 Maneuver	347	386	-	482	385	-	-	-	-	-	-	-
Stage 1	601	601	-	748	695	-	-	-	-	-	-	-
Stage 2	706	694	-	755	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.52	10.32	0	0.34
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1198	-	-	347	819	719	1306	-	-
HCM Lane V/C Ratio	-	-	-	0.034	0.008	0.06	0.012	-	-
HCM Control Delay (s/veh)	0	-	-	15.7	9.4	10.3	7.8	-	-
HCM Lane LOS	A	-	-	C	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.2	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	373	54	31	270	115	55	364	93	140	324	41
Future Volume (veh/h)	44	373	54	31	270	115	55	364	93	140	324	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		0.97
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	45	385	21	32	278	44	57	375	48	144	334	21
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	354	562	468	282	562	648	122	651	83	203	851	53
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.07	0.21	0.21	0.11	0.25	0.25
Sat Flow, veh/h	1055	1870	1556	977	1870	1556	1781	3157	401	1781	3389	212
Grp Volume(v), veh/h	45	385	21	32	278	44	57	210	213	144	174	181
Grp Sat Flow(s),veh/h/ln	1055	1870	1556	977	1870	1556	1781	1777	1781	1781	1777	1824
Q Serve(g_s), s	1.6	7.9	0.4	1.3	5.3	0.7	1.3	4.6	4.7	3.4	3.5	3.6
Cycle Q Clear(g_c), s	6.9	7.9	0.4	9.2	5.3	0.7	1.3	4.6	4.7	3.4	3.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.12
Lane Grp Cap(c), veh/h	354	562	468	282	562	648	122	366	367	203	446	458
V/C Ratio(X)	0.13	0.68	0.04	0.11	0.49	0.07	0.47	0.57	0.58	0.71	0.39	0.39
Avail Cap(c_a), veh/h	631	1054	877	539	1054	1057	389	1001	1004	389	1001	1028
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	15.3	13.4	10.8	17.4	12.5	7.7	19.5	15.5	15.6	18.6	13.5	13.5
Incr Delay (d2), s/veh	0.1	1.3	0.0	0.2	0.6	0.0	2.7	1.4	1.5	4.6	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.5	0.1	0.2	1.6	0.2	0.5	1.5	1.6	1.3	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	14.7	10.8	17.6	13.1	7.7	22.2	16.9	17.0	23.1	14.1	14.1
LnGrp LOS	B	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		451			354			480			499	
Approach Delay, s/veh		14.6			12.8			17.6			16.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	14.5		18.6	8.5	16.4		18.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.4	6.7		9.9	3.3	5.6		11.2				
Green Ext Time (p_c), s	0.1	2.0		1.7	0.0	1.6		1.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.6
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	49.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	342	69	74	226	171	60	211	21	126	181	64
Future Vol, veh/h	79	342	69	74	226	171	60	211	21	126	181	64
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	376	76	81	248	188	66	232	23	138	199	70
Number of Lanes	1	1	1	1	2	0	0	1	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay, s/veh	69.9	26.9	57.3	17.8
HCM LOS	F	D	F	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	21%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	72%	0%	100%	0%	0%	100%	31%	0%	100%	49%
Vol Right, %	7%	0%	0%	100%	0%	0%	69%	0%	0%	51%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	292	79	342	69	74	151	246	126	121	124
LT Vol	60	79	0	0	74	0	0	126	0	0
Through Vol	211	0	342	0	0	151	75	0	121	60
RT Vol	21	0	0	69	0	0	171	0	0	64
Lane Flow Rate	321	87	376	76	81	166	271	138	133	137
Geometry Grp	6	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.895	0.255	1.048	0.196	0.237	0.458	0.711	0.382	0.347	0.343
Departure Headway (Hd)	10.041	10.564	10.038	9.302	10.862	10.333	9.819	10.243	9.72	9.343
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	359	341	365	387	333	351	371	353	373	388
Service Time	7.834	8.301	7.775	7.038	8.562	8.033	7.519	7.943	7.42	7.043
HCM Lane V/C Ratio	0.894	0.255	1.03	0.196	0.243	0.473	0.73	0.391	0.357	0.353
HCM Control Delay, s/veh	57.3	16.9	93.3	14.3	16.9	21.5	33.3	19.1	17.5	16.8
HCM Lane LOS	F	C	F	B	C	C	D	C	C	C
HCM 95th-tile Q	8.8	1	13	0.7	0.9	2.3	5.3	1.7	1.5	1.5

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	353	11	29	289	16	24	1	62	9	0	49
Future Vol, veh/h	70	353	11	29	289	16	24	1	62	9	0	49
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	490	15	40	401	22	33	1	86	13	0	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	429	0	0	511	0	0	984	1207	508	1188	-	222
Stage 1	-	-	-	-	-	-	697	697	-	498	-	-
Stage 2	-	-	-	-	-	-	286	509	-	690	-	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	-	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	-	3.319
Pot Cap-1 Maneuver	1129	-	-	1053	-	-	215	183	564	154	0	783
Stage 1	-	-	-	-	-	-	430	442	-	524	0	-
Stage 2	-	-	-	-	-	-	698	537	-	434	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1124	-	-	1048	-	-	171	159	559	112	-	775
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	159	-	112	-	-
Stage 1	-	-	-	-	-	-	391	402	-	501	-	-
Stage 2	-	-	-	-	-	-	609	514	-	333	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.37	0.74	21.52	14.89
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	337	1124	-	-	1048	-	-	112	775
HCM Lane V/C Ratio	0.358	0.087	-	-	0.038	-	-	0.111	0.088
HCM Control Delay (s/veh)	21.5	8.5	-	-	8.6	-	-	41	10.1
HCM Lane LOS	C	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	1.6	0.3	-	-	0.1	-	-	0.4	0.3

Intersection	
Intersection Delay, s/veh	17.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	133	348	31	7	212	53	34	139	2	52	144	103
Future Vol, veh/h	133	348	31	7	212	53	34	139	2	52	144	103
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	173	452	40	9	275	69	44	181	3	68	187	134
Number of Lanes	1	2	0	1	2	0	1	2	0	0	2	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay, s/veh	20.2	17	14.6	14.9
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	52%	0%
Vol Thru, %	0%	100%	96%	0%	100%	79%	0%	100%	57%	48%	100%
Vol Right, %	0%	0%	4%	0%	0%	21%	0%	0%	43%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	93	48	133	232	147	7	141	124	100	96
LT Vol	34	0	0	133	0	0	7	0	0	52	0
Through Vol	0	93	46	0	232	116	0	141	71	48	96
RT Vol	0	0	2	0	0	31	0	0	53	0	0
Lane Flow Rate	44	120	63	173	301	191	9	184	161	130	125
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.117	0.303	0.158	0.402	0.66	0.41	0.023	0.442	0.373	0.318	0.296
Departure Headway (Hd)	9.563	9.063	9.034	8.486	7.986	7.838	9.165	8.665	8.365	8.922	8.662
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	377	398	399	427	455	462	393	418	432	405	418
Service Time	7.277	6.777	6.748	6.186	5.686	5.538	6.865	6.365	6.065	6.622	6.362
HCM Lane V/C Ratio	0.117	0.302	0.158	0.405	0.662	0.413	0.023	0.44	0.373	0.321	0.299
HCM Control Delay, s/veh	13.5	15.7	13.4	16.8	24.9	15.9	12.1	18.1	16	15.7	15
HCM Lane LOS	B	C	B	C	C	C	B	C	C	C	B
HCM 95th-tile Q	0.4	1.3	0.6	1.9	4.7	2	0.1	2.2	1.7	1.3	1.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑			↑↑	↱
Traffic Vol, veh/h	0	0	6	0	0	0	0	237	0	0	240	11
Future Vol, veh/h	0	0	6	0	0	0	0	237	0	0	240	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	120
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	0	0	0	0	279	0	0	282	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	561	561	141	-	-	279	-	0	-	-	-	0
Stage 1	282	282	-	-	-	-	-	-	-	-	-	-
Stage 2	279	279	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	-	-	6.23	-	-	-	-	-	-
Critical Hdwy Stg 1	6.53	5.53	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	3.319	-	-	-	-	-	-
Pot Cap-1 Maneuver	424	436	882	0	0	759	0	-	0	0	-	-
Stage 1	701	677	-	0	0	-	0	-	0	0	-	-
Stage 2	727	679	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	424	436	882	-	-	759	-	-	-	-	-	-
Mov Cap-2 Maneuver	424	436	-	-	-	-	-	-	-	-	-	-
Stage 1	701	677	-	-	-	-	-	-	-	-	-	-
Stage 2	727	679	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.1	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	882	-	-	-
HCM Lane V/C Ratio	-	0.008	-	-	-
HCM Control Delay (s/veh)	-	9.1	0	-	-
HCM Lane LOS	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	-

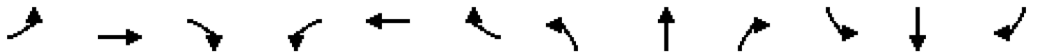
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	1	3	0	1	23	2	266	5	48	247	5
Future Vol, veh/h	13	1	3	0	1	23	2	266	5	48	247	5
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	1	3	0	1	25	2	286	5	52	266	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	672	672	145	535	672	294	276	0	0	291	0	0
Stage 1	377	377	-	293	293	-	-	-	-	-	-	-
Stage 2	296	296	-	242	379	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	355	376	876	442	376	745	1285	-	-	1269	-	-
Stage 1	618	615	-	714	670	-	-	-	-	-	-	-
Stage 2	712	668	-	741	614	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	325	359	868	419	359	741	1279	-	-	1269	-	-
Mov Cap-2 Maneuver	325	359	-	419	359	-	-	-	-	-	-	-
Stage 1	590	587	-	713	668	-	-	-	-	-	-	-
Stage 2	683	667	-	704	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	15.24	10.26	0.06	1.27
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1279	-	-	327	868	710	1269	-	-
HCM Lane V/C Ratio	0.002	-	-	0.046	0.004	0.036	0.041	-	-
HCM Control Delay (s/veh)	7.8	-	-	16.5	9.2	10.3	8	-	-
HCM Lane LOS	A	-	-	C	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	201	79	66	493	196	65	357	43	137	363	50
Future Volume (veh/h)	27	201	79	66	493	196	65	357	43	137	363	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	218	27	72	536	155	71	388	35	149	395	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	1086	475	458	828	238	141	672	60	204	779	78
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.20	0.20	0.11	0.24	0.24
Sat Flow, veh/h	751	3554	1556	1131	2710	780	1781	3291	295	1781	3253	327
Grp Volume(v), veh/h	29	218	27	72	351	340	71	208	215	149	215	220
Grp Sat Flow(s),veh/h/ln	751	1777	1556	1131	1777	1713	1781	1777	1810	1781	1777	1804
Q Serve(g_s), s	1.5	2.0	0.5	2.2	7.5	7.6	1.7	4.6	4.7	3.5	4.6	4.6
Cycle Q Clear(g_c), s	9.1	2.0	0.5	4.2	7.5	7.6	1.7	4.6	4.7	3.5	4.6	4.6
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.16	1.00		0.18
Lane Grp Cap(c), veh/h	264	1086	475	458	543	523	141	363	369	204	425	432
V/C Ratio(X)	0.11	0.20	0.06	0.16	0.65	0.65	0.50	0.57	0.58	0.73	0.50	0.51
Avail Cap(c_a), veh/h	454	1984	869	744	992	956	386	992	1010	386	992	1007
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	17.1	11.3	10.8	12.8	13.2	13.2	19.4	15.7	15.8	18.8	14.4	14.5
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.1	1.1	1.2	2.8	1.4	1.4	5.0	0.9	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	0.2	0.6	0.1	0.4	2.2	2.2	0.7	1.5	1.6	1.4	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.3	11.4	10.8	13.0	14.3	14.4	22.1	17.2	17.2	23.7	15.4	15.4
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		274			763			494			584	
Approach Delay, s/veh		11.9			14.2			17.9			17.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	14.5		18.9	9.0	16.0		18.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.0	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.5	6.7		11.1	3.7	6.6		9.6				
Green Ext Time (p_c), s	0.1	2.0		1.0	0.1	2.0		3.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.7
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	206	94	33	397	162	64	215	22	129	261	76
Future Volume (veh/h)	94	206	94	33	397	162	64	215	22	129	261	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	212	97	34	409	167	66	222	23	133	269	78
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	472	882	388	596	908	366	230	384	36	683	796	225
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	836	2387	1050	1068	2458	991	227	1311	123	1132	2720	771
Grp Volume(v), veh/h	97	156	153	34	294	282	311	0	0	133	174	173
Grp Sat Flow(s),veh/h/ln	836	1777	1660	1068	1777	1672	1661	0	0	1132	1777	1714
Q Serve(g_s), s	2.7	1.6	1.7	0.6	3.3	3.4	1.6	0.0	0.0	0.0	2.0	2.1
Cycle Q Clear(g_c), s	6.1	1.6	1.7	2.3	3.3	3.4	4.1	0.0	0.0	1.6	2.0	2.1
Prop In Lane	1.00		0.63	1.00		0.59	0.21		0.07	1.00		0.45
Lane Grp Cap(c), veh/h	472	657	613	596	657	618	650	0	0	683	520	501
V/C Ratio(X)	0.21	0.24	0.25	0.06	0.45	0.46	0.48	0.00	0.00	0.19	0.33	0.35
Avail Cap(c_a), veh/h	728	1201	1122	923	1201	1130	1253	0	0	1117	1201	1159
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	1.00	1.00
Uniform Delay (d), s/veh	8.7	5.8	5.8	6.6	6.3	6.4	8.1	0.0	0.0	7.2	7.4	7.4
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.0	0.5	0.5	0.5	0.0	0.0	0.1	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	0.0	0.3	0.3	0.6	0.0	0.0	0.2	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.9	6.0	6.0	6.7	6.8	6.9	8.6	0.0	0.0	7.4	7.8	7.8
LnGrp LOS	A	A	A	A	A	A	A			A	A	A
Approach Vol, veh/h		406			610			311			480	
Approach Delay, s/veh		6.7			6.8			8.6			7.7	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	12.3	14.3	12.3	14.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	6.1	8.1	4.1	5.4
Green Ext Time (p_c), s	1.3	1.5	1.9	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	7.3
HCM 7th LOS	A

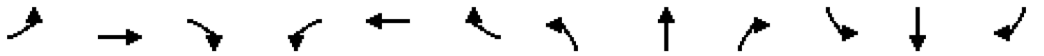
Intersection	
Int Delay, s/veh	12.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	251	74	118	393	31	48	0	219	3	0	77
Future Vol, veh/h	60	251	74	118	393	31	48	0	219	3	0	77
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	318	94	149	497	39	61	0	277	4	0	97

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	542	0	0	416	0	0	1074	1362	216	1137	-	278
Stage 1	-	-	-	-	-	-	521	521	-	821	-	-
Stage 2	-	-	-	-	-	-	552	840	-	316	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1023	-	-	1139	-	-	174	147	789	157	0	719
Stage 1	-	-	-	-	-	-	506	530	-	335	0	-
Stage 2	-	-	-	-	-	-	485	379	-	670	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1018	-	-	1134	-	-	120	117	781	80	-	712
Mov Cap-2 Maneuver	-	-	-	-	-	-	120	117	-	80	-	-
Stage 1	-	-	-	-	-	-	466	488	-	289	-	-
Stage 2	-	-	-	-	-	-	362	327	-	398	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.7	1.88	50.48	12.4
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	392	1018	-	-	1134	-	-	80	712
HCM Lane V/C Ratio	0.862	0.075	-	-	0.132	-	-	0.047	0.137
HCM Control Delay (s/veh)	50.5	8.8	-	-	8.7	-	-	51.9	10.9
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	8.4	0.2	-	-	0.5	-	-	0.1	0.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	299	49	77	358	64	29	202	6	32	184	158
Future Volume (veh/h)	131	299	49	77	358	64	29	202	6	32	184	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	156	356	43	92	426	58	35	240	5	38	219	43
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	760	91	250	748	101	333	715	15	330	715	312
Arrive On Green	0.14	0.24	0.24	0.14	0.24	0.24	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3187	382	1781	3136	424	1112	3558	74	1130	3554	1551
Grp Volume(v), veh/h	156	197	202	92	240	244	35	120	125	38	219	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1777	1784	1112	1777	1855	1130	1777	1551
Q Serve(g_s), s	3.5	4.1	4.1	2.0	5.1	5.2	1.2	2.5	2.5	1.3	2.2	1.0
Cycle Q Clear(g_c), s	3.5	4.1	4.1	2.0	5.1	5.2	3.4	2.5	2.5	3.8	2.2	1.0
Prop In Lane	1.00		0.21	1.00		0.24	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	249	424	427	250	424	425	333	357	373	330	715	312
V/C Ratio(X)	0.63	0.47	0.47	0.37	0.57	0.57	0.10	0.33	0.34	0.12	0.31	0.14
Avail Cap(c_a), veh/h	291	1037	1047	250	996	1000	915	1286	1343	921	2573	1123
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	17.4	14.0	14.0	16.7	14.4	14.4	16.0	14.7	14.7	16.3	14.6	14.1
Incr Delay (d2), s/veh	3.2	0.8	0.8	0.9	1.2	1.2	0.1	0.5	0.5	0.2	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.2	1.2	0.7	1.5	1.6	0.2	0.8	0.8	0.3	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.6	14.8	14.8	17.6	15.5	15.6	16.2	15.2	15.2	16.4	14.8	14.3
LnGrp LOS	C	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		555			576			280			300	
Approach Delay, s/veh		16.4			15.9			15.3			14.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.6	12.0	16.2	14.6	12.0	16.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0	31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	5.4	4.0	6.1	5.8	5.5	7.2
Green Ext Time (p_c), s	1.2	0.0	1.8	1.5	0.1	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	15.8
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	9	2	0	34	0	232	1	15	297	13
Future Volume (veh/h)	13	0	9	2	0	34	0	232	1	15	297	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	0	9	2	0	36	0	244	1	16	313	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	0	45	257	0	115	476	1174	524	795	1174	524
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.00	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	943	0	606	85	0	1535	1053	3554	1585	1135	3554	1585
Grp Volume(v), veh/h	23	0	0	38	0	0	0	244	1	16	313	14
Grp Sat Flow(s),veh/h/ln	1550	0	0	1621	0	0	1053	1777	1585	1135	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.2	1.0	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.9	1.0	0.1
Prop In Lane	0.61		0.39	0.05		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	499	0	0	372	0	0	476	1174	524	795	1174	524
V/C Ratio(X)	0.05	0.00	0.00	0.10	0.00	0.00	0.00	0.21	0.00	0.02	0.27	0.03
Avail Cap(c_a), veh/h	2113	0	0	2127	0	0	1380	4228	1886	1770	4228	1886
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	0.0	6.6	0.0	0.0	0.0	3.6	3.4	4.0	3.7	3.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	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	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.6	0.0	0.0	6.7	0.0	0.0	0.0	3.7	3.4	4.0	3.8	3.4
LnGrp LOS	A			A				A	A	A	A	A
Approach Vol, veh/h		23			38			245			343	
Approach Delay, s/veh		6.6			6.7			3.7			3.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	9.5	5.6	9.5	5.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.7	2.2	3.0	2.3
Green Ext Time (p_c), s	1.1	0.0	1.6	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	4.1
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	265	371	5
Future Vol, veh/h	0	7	0	265	371	5
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	285	399	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	212	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	793	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	786	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/veh	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	786	-	-
HCM Lane V/C Ratio	-	0.01	-	-
HCM Control Delay (s/veh)	-	9.6	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	155	14	5
Future Vol, veh/h	0	6	2	155	14	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	-	-	-	-	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	0	7	2	168	15	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	176	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	173	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	814	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	857	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	812	1081
Mov Cap-2 Maneuver	-	-	-	-	812	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	856	-

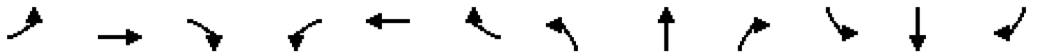
Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.09	9.24
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	869	-	-	23	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Control Delay (s/veh)	9.2	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	251	74	118	393	31	48	0	219	3	0	77
Future Volume (veh/h)	60	251	74	118	393	31	48	0	219	3	0	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	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	76	318	94	149	497	39	61	0	277	4	0	97
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	471	1010	293	523	1247	98	199	34	407	630	0	502
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.32	0.00	0.32	0.32	0.00	0.32
Sat Flow, veh/h	866	2698	782	971	3331	261	173	105	1261	1203	0	1557
Grp Volume(v), veh/h	76	207	205	149	264	272	338	0	0	4	0	97
Grp Sat Flow(s),veh/h/ln	866	1777	1703	971	1777	1814	1539	0	0	1203	0	1557
Q Serve(g_s), s	2.1	2.5	2.5	3.8	3.2	3.3	2.1	0.0	0.0	0.0	0.0	1.3
Cycle Q Clear(g_c), s	5.4	2.5	2.5	6.4	3.2	3.3	5.5	0.0	0.0	0.1	0.0	1.3
Prop In Lane	1.00		0.46	1.00		0.14	0.18		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	471	665	637	523	665	679	640	0	0	630	0	502
V/C Ratio(X)	0.16	0.31	0.32	0.28	0.40	0.40	0.53	0.00	0.00	0.01	0.00	0.19
Avail Cap(c_a), veh/h	672	1077	1032	748	1077	1100	1066	0	0	942	0	944
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	1.00
Uniform Delay (d), s/veh	8.8	6.6	6.6	8.9	6.8	6.8	8.6	0.0	0.0	6.8	0.0	7.3
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.3	0.4	0.4	0.7	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	0.4	0.4	0.4	1.4	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.0	6.8	6.9	9.2	7.2	7.2	9.3	0.0	0.0	6.8	0.0	7.5
LnGrp LOS	A	A	A	A	A	A	A			A		A
Approach Vol, veh/h		488			685			338			101	
Approach Delay, s/veh		7.2			7.6			9.3			7.4	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	14.1	15.6	14.1	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	7.5	7.4	3.3	8.4
Green Ext Time (p_c), s	1.7	1.8	0.2	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	7.8
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	411	66	35	297	127	65	392	103	154	387	46
Future Volume (veh/h)	49	411	66	35	297	127	65	392	103	154	387	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	51	424	16	36	306	60	67	404	73	159	399	37
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	335	875	382	311	728	141	139	693	124	217	903	83
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.08	0.23	0.23	0.12	0.28	0.28
Sat Flow, veh/h	1013	3554	1554	947	2959	572	1781	3000	537	1781	3283	303
Grp Volume(v), veh/h	51	424	16	36	182	184	67	238	239	159	215	221
Grp Sat Flow(s),veh/h/ln	1013	1777	1554	947	1777	1754	1781	1777	1761	1781	1777	1809
Q Serve(g_s), s	1.8	4.2	0.3	1.4	3.5	3.6	1.5	4.9	5.0	3.5	4.1	4.2
Cycle Q Clear(g_c), s	5.5	4.2	0.3	5.6	3.5	3.6	1.5	4.9	5.0	3.5	4.1	4.2
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.31	1.00		0.17
Lane Grp Cap(c), veh/h	335	875	382	311	437	432	139	411	407	217	489	498
V/C Ratio(X)	0.15	0.48	0.04	0.12	0.42	0.43	0.48	0.58	0.59	0.73	0.44	0.44
Avail Cap(c_a), veh/h	688	2114	924	641	1057	1044	411	1057	1048	411	1057	1076
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	15.4	13.3	11.8	15.7	13.0	13.1	18.2	14.1	14.1	17.4	12.3	12.3
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.1	0.5	0.6	2.6	1.3	1.4	4.7	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.1	0.2	1.0	1.1	0.6	1.5	1.5	1.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.6	13.6	11.9	15.8	13.6	13.6	20.8	15.3	15.4	22.1	12.9	12.9
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		491			402			544			595	
Approach Delay, s/veh		13.8			13.8			16.1			15.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	15.0		15.6	8.7	16.8		15.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.5	7.0		7.5	3.5	6.2		7.6				
Green Ext Time (p_c), s	0.1	2.3		2.2	0.0	2.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	383	82	86	253	194	70	223	27	200	175	71
Future Volume (veh/h)	87	383	82	86	253	194	70	223	27	200	175	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	96	421	90	95	278	213	77	245	30	220	192	78
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	488	1062	225	486	706	522	233	402	45	660	775	302
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	904	2908	616	887	1932	1429	243	1289	143	1102	2483	969
Grp Volume(v), veh/h	96	256	255	95	255	236	352	0	0	220	135	135
Grp Sat Flow(s),veh/h/ln	904	1777	1747	887	1777	1584	1674	0	0	1102	1777	1675
Q Serve(g_s), s	2.5	3.0	3.0	2.5	3.0	3.1	2.2	0.0	0.0	0.0	1.6	1.7
Cycle Q Clear(g_c), s	5.6	3.0	3.0	5.5	3.0	3.1	4.9	0.0	0.0	3.5	1.6	1.7
Prop In Lane	1.00		0.35	1.00		0.90	0.22		0.09	1.00		0.58
Lane Grp Cap(c), veh/h	488	649	638	486	649	579	680	0	0	660	554	523
V/C Ratio(X)	0.20	0.39	0.40	0.20	0.39	0.41	0.52	0.00	0.00	0.33	0.24	0.26
Avail Cap(c_a), veh/h	741	1146	1127	734	1146	1022	1213	0	0	1027	1146	1081
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	1.00	1.00
Uniform Delay (d), s/veh	8.7	6.6	6.6	8.6	6.6	6.6	8.2	0.0	0.0	7.8	7.1	7.2
Incr Delay (d2), s/veh	0.2	0.4	0.4	0.2	0.4	0.5	0.6	0.0	0.0	0.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	0.2	0.3	0.3	0.8	0.0	0.0	0.5	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.9	7.0	7.0	8.8	6.9	7.1	8.8	0.0	0.0	8.1	7.4	7.4
LnGrp LOS	A	A	A	A	A	A	A			A	A	A
Approach Vol, veh/h		607			586			352			490	
Approach Delay, s/veh		7.3			7.3			8.8			7.7	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.2	14.7	13.2	14.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	5.9	7.6	5.5	7.5
Green Ext Time (p_c), s	1.4	2.3	1.8	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	7.7
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	445	27	13	322	18	36	2	70	10	0	54
Future Vol, veh/h	77	445	27	13	322	18	36	2	70	10	0	54
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	618	38	18	447	25	50	3	97	14	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	477	0	0	661	0	0	1120	1369	338	1030	-	246
Stage 1	-	-	-	-	-	-	856	856	-	501	-	-
Stage 2	-	-	-	-	-	-	265	513	-	529	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1081	-	-	924	-	-	161	145	658	188	0	754
Stage 1	-	-	-	-	-	-	319	373	-	521	0	-
Stage 2	-	-	-	-	-	-	718	534	-	501	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1076	-	-	919	-	-	127	127	652	137	-	747
Mov Cap-2 Maneuver	-	-	-	-	-	-	127	127	-	137	-	-
Stage 1	-	-	-	-	-	-	286	334	-	508	-	-
Stage 2	-	-	-	-	-	-	630	521	-	379	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.33	34.89	14.09
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	265	1076	-	-	919	-	-	137	747
HCM Lane V/C Ratio	0.566	0.099	-	-	0.02	-	-	0.101	0.1
HCM Control Delay (s/veh)	34.9	8.7	-	-	9	-	-	34.2	10.4
HCM Lane LOS	D	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	3.2	0.3	-	-	0.1	-	-	0.3	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	439	35	18	230	59	33	183	3	58	168	108
Future Volume (veh/h)	147	439	35	18	230	59	33	183	3	58	168	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	191	570	40	23	299	50	43	238	3	75	218	31
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	1009	71	60	601	99	377	827	10	374	818	357
Arrive On Green	0.14	0.30	0.30	0.03	0.20	0.20	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3364	236	1781	3042	502	1126	3593	45	1134	3554	1553
Grp Volume(v), veh/h	191	301	309	23	173	176	43	118	123	75	218	31
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1781	1777	1767	1126	1777	1861	1134	1777	1553
Q Serve(g_s), s	4.3	5.9	5.9	0.5	3.6	3.7	1.3	2.3	2.3	2.4	2.1	0.6
Cycle Q Clear(g_c), s	4.3	5.9	5.9	0.5	3.6	3.7	3.4	2.3	2.3	4.7	2.1	0.6
Prop In Lane	1.00		0.13	1.00		0.28	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	242	533	547	60	351	349	377	409	428	374	818	357
V/C Ratio(X)	0.79	0.56	0.57	0.38	0.49	0.50	0.11	0.29	0.29	0.20	0.27	0.09
Avail Cap(c_a), veh/h	302	1076	1104	259	1033	1027	964	1335	1398	964	2669	1166
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	17.3	12.2	12.2	19.5	14.7	14.8	14.4	13.1	13.1	15.0	13.0	12.5
Incr Delay (d2), s/veh	10.6	0.9	0.9	4.0	1.1	1.1	0.1	0.4	0.4	0.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.6	1.6	0.2	1.1	1.1	0.3	0.6	0.7	0.5	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.8	13.1	13.1	23.5	15.8	15.9	14.6	13.5	13.5	15.3	13.2	12.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		801			372			284			324	
Approach Delay, s/veh		16.6			16.3			13.6			13.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.5	7.4	18.4	15.5	11.6	14.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0	31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	5.4	2.5	7.9	6.7	6.3	5.7
Green Ext Time (p_c), s	1.3	0.0	2.8	1.5	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	15.5
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	7	1	0	24	3	220	2	38	264	13
Future Volume (veh/h)	17	0	7	1	0	24	3	220	2	38	264	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	0	8	1	0	28	4	259	2	45	311	15
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	486	0	30	251	0	111	760	1180	526	791	1180	526
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1080	0	432	56	0	1582	1054	3554	1585	1118	3554	1585
Grp Volume(v), veh/h	28	0	0	29	0	0	4	259	2	45	311	15
Grp Sat Flow(s),veh/h/ln	1512	0	0	1638	0	0	1054	1777	1585	1118	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.5	1.0	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.2	0.0	0.0	1.0	0.8	0.0	1.2	1.0	0.1
Prop In Lane	0.71		0.29	0.03		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	516	0	0	363	0	0	760	1180	526	791	1180	526
V/C Ratio(X)	0.05	0.00	0.00	0.08	0.00	0.00	0.01	0.22	0.00	0.06	0.26	0.03
Avail Cap(c_a), veh/h	2130	0	0	2138	0	0	1670	4247	1894	1756	4247	1894
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	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	0.0	6.6	0.0	0.0	4.1	3.6	3.4	4.1	3.7	3.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.7	0.0	0.0	6.7	0.0	0.0	4.1	3.7	3.4	4.1	3.8	3.4
LnGrp LOS	A			A			A	A	A	A	A	A
Approach Vol, veh/h		28			29			265			371	
Approach Delay, s/veh		6.7			6.7			3.7			3.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	9.5	5.6	9.5	5.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	3.0	2.2	3.2	2.2
Green Ext Time (p_c), s	1.2	0.1	1.6	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	4.0
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	301	326	6
Future Vol, veh/h	0	4	0	301	326	6
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	324	351	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	188	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	821	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	814	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/veh	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	814	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s/veh)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

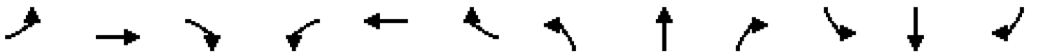
Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	15	5	20	10	3
Future Vol, veh/h	0	15	5	20	10	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	-	-	-	-	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	0	16	5	22	11	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	16	0	41	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1601	-	971	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1601	-	967	1074
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	986	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	1.45	8.69
HCM LOS			A

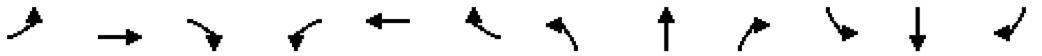
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	360	-
HCM Lane V/C Ratio	0.014	-	-	0.003	-
HCM Control Delay (s/veh)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	445	27	13	322	18	36	0	70	10	0	54
Future Volume (veh/h)	77	445	27	13	322	18	36	0	70	10	0	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	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	107	618	38	18	447	25	50	0	97	14	0	75
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	585	1369	84	507	1378	77	280	35	225	625	0	349
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.22	0.00	0.22	0.22	0.00	0.22
Sat Flow, veh/h	919	3394	208	776	3416	190	358	157	1000	1458	0	1553
Grp Volume(v), veh/h	107	323	333	18	232	240	147	0	0	14	0	75
Grp Sat Flow(s),veh/h/ln	919	1777	1826	776	1777	1830	1515	0	0	1458	0	1553
Q Serve(g_s), s	2.2	3.2	3.2	0.4	2.2	2.2	0.4	0.0	0.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	4.4	3.2	3.2	3.6	2.2	2.2	1.9	0.0	0.0	0.1	0.0	1.0
Prop In Lane	1.00		0.11	1.00		0.10	0.34		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	585	717	736	507	717	738	540	0	0	625	0	349
V/C Ratio(X)	0.18	0.45	0.45	0.04	0.32	0.33	0.27	0.00	0.00	0.02	0.00	0.21
Avail Cap(c_a), veh/h	898	1322	1358	771	1322	1361	1300	0	0	1296	0	1155
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	1.00
Uniform Delay (d), s/veh	6.5	5.3	5.3	6.6	5.0	5.0	8.0	0.0	0.0	7.3	0.0	7.6
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.0	0.3	0.3	0.3	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.1	0.1	0.5	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.6	5.7	5.7	6.6	5.2	5.2	8.3	0.0	0.0	7.3	0.0	7.9
LnGrp LOS	A	A	A	A	A	A	A			A		A
Approach Vol, veh/h		763			490			147			89	
Approach Delay, s/veh		5.8			5.3			8.3			7.9	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	9.9	14.3	9.9	14.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	3.9	6.4	3.0	5.6
Green Ext Time (p_c), s	0.7	3.1	0.2	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	6.0
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	245	79	66	537	196	65	493	43	137	503	50
Future Volume (veh/h)	27	245	79	66	537	196	65	493	43	137	503	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	266	27	72	584	163	71	536	38	149	547	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	1101	482	422	847	236	135	822	58	192	920	74
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.24	0.24	0.11	0.28	0.28
Sat Flow, veh/h	713	3554	1556	1083	2733	761	1781	3361	238	1781	3326	267
Grp Volume(v), veh/h	29	266	27	72	379	368	71	283	291	149	292	299
Grp Sat Flow(s),veh/h/ln	713	1777	1556	1083	1777	1717	1781	1777	1822	1781	1777	1816
Q Serve(g_s), s	1.8	2.7	0.6	2.6	9.1	9.2	1.9	7.0	7.0	4.0	6.9	7.0
Cycle Q Clear(g_c), s	11.0	2.7	0.6	5.3	9.1	9.2	1.9	7.0	7.0	4.0	6.9	7.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.13	1.00		0.15
Lane Grp Cap(c), veh/h	234	1101	482	422	550	532	135	435	446	192	492	503
V/C Ratio(X)	0.12	0.24	0.06	0.17	0.69	0.69	0.52	0.65	0.65	0.77	0.59	0.60
Avail Cap(c_a), veh/h	371	1781	780	630	891	861	346	891	913	346	891	910
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	19.7	12.6	11.8	14.6	14.8	14.8	21.7	16.6	16.6	21.2	15.3	15.3
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.2	1.3	1.4	3.1	1.6	1.6	6.5	1.1	1.1
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	0.3	0.8	0.2	0.5	2.9	2.8	0.8	2.4	2.4	1.7	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.9	12.7	11.9	14.7	16.1	16.2	24.9	18.2	18.2	27.7	16.4	16.4
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		322			819			645			740	
Approach Delay, s/veh		13.3			16.0			19.0			18.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	17.5		20.6	9.2	19.0		20.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.0	9.0		13.0	3.9	9.0		11.2				
Green Ext Time (p_c), s	0.1	2.7		1.2	0.1	2.7		3.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.2
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	233	110	57	426	162	79	351	42	129	401	76
Future Volume (veh/h)	94	233	110	57	426	162	79	351	42	129	401	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	240	113	59	439	167	81	362	43	133	413	78
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	394	842	382	505	896	337	192	497	55	561	1110	208
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	813	2360	1072	1026	2512	946	175	1332	146	979	2978	557
Grp Volume(v), veh/h	97	179	174	59	309	297	486	0	0	133	245	246
Grp Sat Flow(s),veh/h/ln	813	1777	1655	1026	1777	1680	1654	0	0	979	1777	1759
Q Serve(g_s), s	3.5	2.4	2.5	1.5	4.5	4.6	4.3	0.0	0.0	0.0	3.3	3.4
Cycle Q Clear(g_c), s	3.1	2.4	2.5	4.0	4.5	4.6	8.4	0.0	0.0	3.6	3.3	3.4
Prop In Lane	1.00		0.65	1.00		0.56	0.17		0.09	1.00		0.32
Lane Grp Cap(c), veh/h	394	634	590	505	634	599	743	0	0	561	662	656
V/C Ratio(X)	0.25	0.28	0.30	0.12	0.49	0.50	0.65	0.00	0.00	0.24	0.37	0.38
Avail Cap(c_a), veh/h	544	961	895	694	961	909	1006	0	0	726	961	951
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	1.00	1.00
Uniform Delay (d), s/veh	11.5	7.7	7.7	9.1	8.3	8.4	9.0	0.0	0.0	7.7	7.6	7.6
Incr Delay (d2), s/veh	0.3	0.2	0.3	0.1	0.6	0.6	1.0	0.0	0.0	0.2	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.2	0.8	0.8	1.5	0.0	0.0	0.3	0.6	0.6	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.9	7.9	8.0	9.2	8.9	9.0	10.0	0.0	0.0	7.9	7.9	8.0
LnGrp LOS	B	A	A	A	A	A	B			A	A	A
Approach Vol, veh/h		450			665			486			624	
Approach Delay, s/veh		8.8			9.0			10.0			7.9	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.9	16.4	16.9	16.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	10.4	10.1	5.6	6.6
Green Ext Time (p_c), s	1.8	1.5	2.6	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	8.9
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	17.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	298	74	118	446	31	48	0	219	3	0	77
Future Vol, veh/h	60	298	74	118	446	31	48	0	219	3	0	77
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	377	94	149	565	39	61	0	277	4	0	97

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	609	0	0	476	0	0	1167	1488	245	1233	-	312
Stage 1	-	-	-	-	-	-	581	581	-	888	-	-
Stage 2	-	-	-	-	-	-	586	908	-	346	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	966	-	-	1083	-	-	149	123	755	133	0	684
Stage 1	-	-	-	-	-	-	467	498	-	305	0	-
Stage 2	-	-	-	-	-	-	463	353	-	643	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	961	-	-	1077	-	-	100	97	748	66	-	677
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	97	-	66	-	-
Stage 1	-	-	-	-	-	-	428	456	-	261	-	-
Stage 2	-	-	-	-	-	-	340	302	-	371	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.6	1.76	78.22	13.15
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	346	961	-	-	1077	-	-	66	677
HCM Lane V/C Ratio	0.978	0.079	-	-	0.139	-	-	0.058	0.144
HCM Control Delay (s/veh)	78.2	9.1	-	-	8.9	-	-	63.1	11.2
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	10.8	0.3	-	-	0.5	-	-	0.2	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	342	53	79	399	64	41	240	12	32	197	158
Future Volume (veh/h)	131	342	53	79	399	64	41	240	12	32	197	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	156	407	49	94	475	61	49	286	9	38	235	44
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	799	96	239	793	101	333	746	23	315	754	329
Arrive On Green	0.13	0.25	0.25	0.13	0.25	0.25	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3188	381	1781	3161	404	1096	3514	110	1080	3554	1552
Grp Volume(v), veh/h	156	226	230	94	266	270	49	144	151	38	235	44
Grp Sat Flow(s),veh/h/ln	1781	1777	1793	1781	1777	1788	1096	1777	1848	1080	1777	1552
Q Serve(g_s), s	3.7	4.9	4.9	2.2	5.9	6.0	1.8	3.1	3.1	1.4	2.5	1.0
Cycle Q Clear(g_c), s	3.7	4.9	4.9	2.2	5.9	6.0	4.3	3.1	3.1	4.5	2.5	1.0
Prop In Lane	1.00		0.21	1.00		0.23	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	239	446	450	239	446	448	333	377	392	315	754	329
V/C Ratio(X)	0.65	0.51	0.51	0.39	0.60	0.60	0.15	0.38	0.38	0.12	0.31	0.13
Avail Cap(c_a), veh/h	279	994	1003	239	954	960	860	1232	1282	835	2465	1076
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	18.4	14.4	14.4	17.7	14.8	14.8	16.6	15.1	15.1	17.0	14.8	14.3
Incr Delay (d2), s/veh	4.2	0.9	0.9	1.0	1.3	1.3	0.2	0.6	0.6	0.2	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.5	1.5	0.7	1.8	1.8	0.4	1.0	1.0	0.3	0.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.6	15.3	15.3	18.7	16.0	16.1	16.8	15.7	15.7	17.2	15.1	14.5
LnGrp LOS	C	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		612			630			344			317	
Approach Delay, s/veh		17.1			16.5			15.9			15.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.5	12.0	17.2	15.5	12.0	17.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0	31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	6.3	4.2	6.9	6.5	5.7	8.0
Green Ext Time (p_c), s	1.6	0.0	2.1	1.6	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	9	2	0	34	0	403	1	15	477	13
Future Volume (veh/h)	13	0	9	2	0	34	0	403	1	15	477	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	0	9	2	0	36	0	424	1	16	502	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	0	45	236	0	114	437	1351	603	722	1351	603
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.00	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	944	0	607	85	0	1536	885	3554	1585	962	3554	1585
Grp Volume(v), veh/h	23	0	0	38	0	0	0	424	1	16	502	14
Grp Sat Flow(s),veh/h/ln	1551	0	0	1621	0	0	885	1777	1585	962	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.4	0.0	0.2	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.3	0.0	0.0	0.0	1.4	0.0	1.6	1.7	0.1
Prop In Lane	0.61		0.39	0.05		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	466	0	0	350	0	0	437	1351	603	722	1351	603
V/C Ratio(X)	0.05	0.00	0.00	0.11	0.00	0.00	0.00	0.31	0.00	0.02	0.37	0.02
Avail Cap(c_a), veh/h	940	0	0	1952	0	0	1066	3880	1730	1407	3880	1730
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	7.2	0.0	0.0	0.0	3.6	3.2	4.2	3.7	3.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	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	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.2	0.0	0.0	7.4	0.0	0.0	0.0	3.7	3.2	4.2	3.9	3.2
LnGrp LOS	A			A				A	A	A	A	A
Approach Vol, veh/h		23			38			425			532	
Approach Delay, s/veh		7.2			7.4			3.7			3.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	10.8	5.7	10.8	5.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	3.4	2.2	3.7	2.3
Green Ext Time (p_c), s	2.1	0.0	2.6	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	4.0
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	436	551	5
Future Vol, veh/h	0	7	0	436	551	5
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	469	592	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	309	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	687	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	680	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.35	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	680	-	-
HCM Lane V/C Ratio	-	0.011	-	-
HCM Control Delay (s/veh)	-	10.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

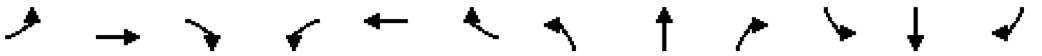
Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	173	14	5
Future Vol, veh/h	0	6	2	173	14	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	-	-	-	-	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	0	7	2	188	15	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	196	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	793	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	792	1081
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	839	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.08	9.33
HCM LOS			A

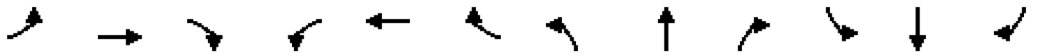
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	21	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Control Delay (s/veh)	9.3	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	298	74	118	446	31	48	0	219	3	0	77
Future Volume (veh/h)	60	298	74	118	446	31	48	0	219	3	0	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	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	76	377	94	149	565	39	61	0	277	4	0	97
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	1097	270	504	1314	91	193	33	401	607	0	495
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.32	0.00	0.32	0.32	0.00	0.32
Sat Flow, veh/h	814	2808	691	920	3366	232	173	104	1261	1175	0	1557
Grp Volume(v), veh/h	76	237	234	149	298	306	338	0	0	4	0	97
Grp Sat Flow(s),veh/h/ln	814	1777	1722	920	1777	1821	1539	0	0	1175	0	1557
Q Serve(g_s), s	2.3	2.9	3.0	4.2	3.8	3.8	2.3	0.0	0.0	0.0	0.0	1.4
Cycle Q Clear(g_c), s	6.1	2.9	3.0	7.2	3.8	3.8	5.8	0.0	0.0	0.1	0.0	1.4
Prop In Lane	1.00		0.40	1.00		0.13	0.18		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	451	694	673	504	694	711	627	0	0	607	0	495
V/C Ratio(X)	0.17	0.34	0.35	0.30	0.43	0.43	0.54	0.00	0.00	0.01	0.00	0.20
Avail Cap(c_a), veh/h	607	1035	1004	681	1035	1061	1024	0	0	898	0	907
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	1.00
Uniform Delay (d), s/veh	9.1	6.6	6.6	9.2	6.9	6.9	9.1	0.0	0.0	7.2	0.0	7.7
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.3	0.4	0.4	0.7	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.4	0.4	0.5	0.5	1.5	0.0	0.0	0.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.3	6.9	6.9	9.5	7.3	7.3	9.8	0.0	0.0	7.2	0.0	7.9
LnGrp LOS	A	A	A	A	A	A	A			A		A
Approach Vol, veh/h		547			753			338			101	
Approach Delay, s/veh		7.3			7.7			9.8			7.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	14.3	16.6	14.3	16.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	7.8	8.1	3.4	9.2
Green Ext Time (p_c), s	1.7	2.0	0.2	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	8.0
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	454	66	35	338	127	65	565	103	154	558	46
Future Volume (veh/h)	49	454	66	35	338	127	65	565	103	154	558	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	51	468	16	36	348	72	67	582	86	159	575	41
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	298	895	391	279	737	151	133	871	128	205	1081	77
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.28	0.28	0.12	0.32	0.32
Sat Flow, veh/h	964	3554	1554	909	2928	598	1781	3098	457	1781	3360	239
Grp Volume(v), veh/h	51	468	16	36	209	211	67	333	335	159	304	312
Grp Sat Flow(s),veh/h/ln	964	1777	1554	909	1777	1749	1781	1777	1778	1781	1777	1822
Q Serve(g_s), s	2.2	5.3	0.4	1.7	4.7	4.8	1.7	7.8	7.8	4.1	6.6	6.6
Cycle Q Clear(g_c), s	7.0	5.3	0.4	7.0	4.7	4.8	1.7	7.8	7.8	4.1	6.6	6.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.26	1.00		0.13
Lane Grp Cap(c), veh/h	298	895	391	279	447	440	133	499	500	205	572	586
V/C Ratio(X)	0.17	0.52	0.04	0.13	0.47	0.48	0.50	0.67	0.67	0.77	0.53	0.53
Avail Cap(c_a), veh/h	559	1857	812	525	928	914	361	928	929	361	928	952
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	17.9	15.1	13.3	18.1	14.9	14.9	20.9	14.9	14.9	20.2	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.2	0.7	0.7	2.9	1.5	1.6	6.1	0.8	0.8
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	0.4	1.7	0.1	0.3	1.5	1.5	0.7	2.5	2.5	1.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	15.5	13.3	18.3	15.5	15.6	23.8	16.5	16.5	26.3	13.8	13.8
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		535			456			735			775	
Approach Delay, s/veh		15.7			15.8			17.1			16.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	18.7		17.3	9.0	20.6		17.3				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.1	9.8		9.0	3.7	8.6		9.0				
Green Ext Time (p_c), s	0.1	3.1		2.4	0.0	2.9		1.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.3
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	414	101	112	285	194	89	396	55	200	346	71
Future Volume (veh/h)	87	414	101	112	285	194	89	396	55	200	346	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	96	455	111	123	313	213	98	435	60	220	380	78
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	394	1015	246	383	730	483	184	531	68	474	1202	244
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	875	2826	684	844	2031	1346	186	1296	167	901	2933	595
Grp Volume(v), veh/h	96	285	281	123	273	253	593	0	0	220	229	229
Grp Sat Flow(s),veh/h/ln	875	1777	1733	844	1777	1600	1649	0	0	901	1777	1751
Q Serve(g_s), s	3.7	4.8	4.8	5.1	4.5	4.7	8.1	0.0	0.0	0.0	3.4	3.5
Cycle Q Clear(g_c), s	8.4	4.8	4.8	9.9	4.5	4.7	12.7	0.0	0.0	11.6	3.4	3.5
Prop In Lane	1.00		0.39	1.00		0.84	0.17		0.10	1.00		0.34
Lane Grp Cap(c), veh/h	394	638	622	383	638	575	784	0	0	474	728	718
V/C Ratio(X)	0.24	0.45	0.45	0.32	0.43	0.44	0.76	0.00	0.00	0.46	0.31	0.32
Avail Cap(c_a), veh/h	484	821	801	470	821	739	866	0	0	521	821	809
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	1.00	1.00
Uniform Delay (d), s/veh	12.7	9.5	9.6	13.3	9.5	9.5	10.3	0.0	0.0	10.2	7.8	7.8
Incr Delay (d2), s/veh	0.3	0.5	0.5	0.5	0.5	0.5	3.5	0.0	0.0	0.7	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.1	1.1	0.7	1.0	1.0	3.0	0.0	0.0	0.9	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.0	10.0	10.1	13.8	9.9	10.0	13.8	0.0	0.0	10.9	8.0	8.1
LnGrp LOS	B	B	B	B	A	B	B			B	A	A
Approach Vol, veh/h		662			649			593			678	
Approach Delay, s/veh		10.5			10.7			13.8			9.0	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	20.5	18.5	20.5	18.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	14.7	10.4	13.6	11.9
Green Ext Time (p_c), s	1.2	2.1	1.5	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	10.9
HCM 7th LOS	B

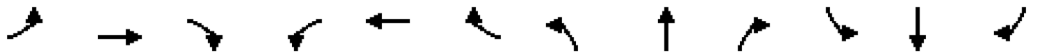
Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	504	27	13	380	18	36	2	70	10	0	54
Future Vol, veh/h	77	504	27	13	380	18	36	2	70	10	0	54
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	700	38	18	528	25	50	3	97	14	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	558	0	0	743	0	0	1243	1532	379	1152	-	286
Stage 1	-	-	-	-	-	-	938	938	-	581	-	-
Stage 2	-	-	-	-	-	-	305	594	-	570	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1009	-	-	861	-	-	131	116	619	153	0	710
Stage 1	-	-	-	-	-	-	284	341	-	466	0	-
Stage 2	-	-	-	-	-	-	680	491	-	473	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1004	-	-	856	-	-	101	100	613	109	-	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	100	-	109	-	-
Stage 1	-	-	-	-	-	-	253	303	-	454	-	-
Stage 2	-	-	-	-	-	-	592	479	-	351	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.4	0.29	50.18	15.76
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	221	1004	-	-	856	-	-	109	704
HCM Lane V/C Ratio	0.68	0.106	-	-	0.021	-	-	0.128	0.107
HCM Control Delay (s/veh)	50.2	9	-	-	9.3	-	-	42.9	10.7
HCM Lane LOS	F	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	4.3	0.4	-	-	0.1	-	-	0.4	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	486	47	24	281	59	40	206	7	58	209	108
Future Volume (veh/h)	147	486	47	24	281	59	40	206	7	58	209	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	191	631	53	31	365	56	52	268	5	75	271	32
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	1021	86	77	665	101	353	855	16	360	852	372
Arrive On Green	0.14	0.31	0.31	0.04	0.22	0.22	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3313	278	1781	3083	468	1072	3567	66	1102	3554	1553
Grp Volume(v), veh/h	191	338	346	31	209	212	52	133	140	75	271	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1814	1781	1777	1774	1072	1777	1857	1102	1777	1553
Q Serve(g_s), s	4.6	7.2	7.2	0.7	4.6	4.7	1.8	2.7	2.7	2.6	2.8	0.7
Cycle Q Clear(g_c), s	4.6	7.2	7.2	0.7	4.6	4.7	4.6	2.7	2.7	5.4	2.8	0.7
Prop In Lane	1.00		0.15	1.00		0.26	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	241	548	559	77	384	383	353	426	445	360	852	372
V/C Ratio(X)	0.79	0.62	0.62	0.40	0.54	0.55	0.15	0.31	0.31	0.21	0.32	0.09
Avail Cap(c_a), veh/h	283	1010	1031	243	969	968	852	1252	1308	872	2504	1095
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	18.4	13.0	13.0	20.5	15.3	15.4	15.7	13.7	13.8	16.0	13.8	13.0
Incr Delay (d2), s/veh	12.3	1.1	1.1	3.4	1.2	1.3	0.2	0.4	0.4	0.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.0	2.1	0.3	1.4	1.5	0.4	0.8	0.8	0.5	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.7	14.1	14.1	23.9	16.5	16.6	15.9	14.2	14.1	16.2	14.0	13.1
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		875			452			325			378	
Approach Delay, s/veh		17.8			17.1			14.4			14.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	16.5	7.9	19.6	16.5	12.0	15.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0	31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	6.6	2.7	9.2	7.4	6.6	6.7
Green Ext Time (p_c), s	1.5	0.0	3.2	1.9	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	7	1	0	24	3	438	2	38	480	13
Future Volume (veh/h)	17	0	7	1	0	24	3	438	2	38	480	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	0	8	1	0	28	4	515	2	45	565	15
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	425	0	30	215	0	109	668	1494	666	693	1494	666
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1081	0	432	57	0	1583	834	3554	1585	884	3554	1585
Grp Volume(v), veh/h	28	0	0	29	0	0	4	515	2	45	565	15
Grp Sat Flow(s),veh/h/ln	1514	0	0	1640	0	0	834	1777	1585	884	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.7	0.0	0.6	1.9	0.1
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.3	0.0	0.0	2.0	1.7	0.0	2.4	1.9	0.1
Prop In Lane	0.71		0.29	0.03		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	425	0	0	325	0	0	668	1494	666	693	1494	666
V/C Ratio(X)	0.06	0.00	0.00	0.09	0.00	0.00	0.01	0.34	0.00	0.06	0.38	0.02
Avail Cap(c_a), veh/h	1821	0	0	1827	0	0	1169	3629	1619	1224	3629	1619
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	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	0.0	0.0	7.8	0.0	0.0	4.2	3.5	3.0	4.3	3.5	3.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	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	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.8	0.0	0.0	7.9	0.0	0.0	4.2	3.6	3.0	4.3	3.7	3.0
LnGrp LOS	A			A			A	A	A	A	A	A
Approach Vol, veh/h		28			29			521			625	
Approach Delay, s/veh		7.8			7.9			3.6			3.7	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	11.9	5.7	11.9	5.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	4.0	2.3	4.4	2.3
Green Ext Time (p_c), s	2.6	0.1	3.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	3.9
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	519	542	6
Future Vol, veh/h	0	4	0	519	542	6
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	558	583	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	305	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	691	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	685	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.29	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	685	-	-
HCM Lane V/C Ratio	-	0.006	-	-
HCM Control Delay (s/veh)	-	10.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	15	5	20	10	3
Future Vol, veh/h	0	15	5	20	10	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	-	-	-	-	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	0	16	5	22	11	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	16	0	41	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1601	-	971	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1601	-	967	1074
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	986	-

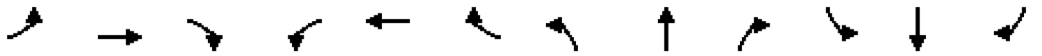
Approach	EB	WB	NB
HCM Control Delay, s/veh	0	1.45	8.69
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	360	-
HCM Lane V/C Ratio	0.014	-	-	0.003	-
HCM Control Delay (s/veh)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	504	27	13	380	18	36	0	70	10	0	54
Future Volume (veh/h)	77	504	27	13	380	18	36	0	70	10	0	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	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	107	700	38	18	528	25	50	0	97	14	0	75
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	561	1459	79	486	1470	69	270	33	216	604	0	336
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.22	0.00	0.22	0.22	0.00	0.22
Sat Flow, veh/h	853	3422	186	719	3449	163	361	154	999	1468	0	1552
Grp Volume(v), veh/h	107	363	375	18	272	281	147	0	0	14	0	75
Grp Sat Flow(s),veh/h/ln	853	1777	1831	719	1777	1836	1514	0	0	1468	0	1552
Q Serve(g_s), s	2.4	3.7	3.7	0.5	2.6	2.6	0.5	0.0	0.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	5.1	3.7	3.7	4.2	2.6	2.6	2.0	0.0	0.0	0.2	0.0	1.0
Prop In Lane	1.00		0.10	1.00		0.09	0.34		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	561	757	780	486	757	782	519	0	0	604	0	336
V/C Ratio(X)	0.19	0.48	0.48	0.04	0.36	0.36	0.28	0.00	0.00	0.02	0.00	0.22
Avail Cap(c_a), veh/h	807	1269	1308	693	1269	1311	1248	0	0	1247	0	1109
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	1.00
Uniform Delay (d), s/veh	6.6	5.2	5.2	6.7	4.9	4.9	8.5	0.0	0.0	7.8	0.0	8.1
Incr Delay (d2), s/veh	0.2	0.5	0.5	0.0	0.3	0.3	0.3	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.1	0.1	0.5	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.8	5.7	5.7	6.8	5.2	5.2	8.8	0.0	0.0	7.8	0.0	8.5
LnGrp LOS	A	A	A	A	A	A	A			A		A
Approach Vol, veh/h		845			571			147			89	
Approach Delay, s/veh		5.8			5.2			8.8			8.4	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	10.0	15.2	10.0	15.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	4.0	7.1	3.0	6.2
Green Ext Time (p_c), s	0.7	3.4	0.2	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	6.0
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	201	81	66	493	196	68	393	43	137	361	50
Future Volume (veh/h)	27	201	81	66	493	196	68	393	43	137	361	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	218	27	72	536	155	74	427	35	149	392	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1077	472	452	821	236	144	716	58	201	806	82
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.08	0.22	0.22	0.11	0.25	0.25
Sat Flow, veh/h	751	3554	1556	1131	2710	780	1781	3321	271	1781	3250	330
Grp Volume(v), veh/h	29	218	27	72	351	340	74	228	234	149	213	219
Grp Sat Flow(s),veh/h/ln	751	1777	1556	1131	1777	1713	1781	1777	1815	1781	1777	1803
Q Serve(g_s), s	1.6	2.0	0.6	2.3	7.7	7.7	1.8	5.2	5.2	3.6	4.6	4.7
Cycle Q Clear(g_c), s	9.3	2.0	0.6	4.3	7.7	7.7	1.8	5.2	5.2	3.6	4.6	4.7
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.15	1.00		0.18
Lane Grp Cap(c), veh/h	259	1077	472	452	539	519	144	383	391	201	441	447
V/C Ratio(X)	0.11	0.20	0.06	0.16	0.65	0.66	0.52	0.59	0.60	0.74	0.48	0.49
Avail Cap(c_a), veh/h	442	1943	851	728	972	937	378	972	992	378	972	986
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	17.6	11.6	11.1	13.2	13.6	13.6	19.8	15.8	15.8	19.2	14.4	14.4
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.1	1.1	1.2	2.8	1.5	1.5	5.3	0.8	0.8
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	0.2	0.6	0.1	0.4	2.3	2.2	0.7	1.7	1.8	1.5	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.8	11.7	11.1	13.3	14.7	14.8	22.6	17.3	17.3	24.5	15.2	15.2
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		274			763			536			581	
Approach Delay, s/veh		12.3			14.6			18.0			17.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	15.2		19.1	9.1	16.6		19.1				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.6	7.2		11.3	3.8	6.7		9.7				
Green Ext Time (p_c), s	0.1	2.1		1.0	0.1	2.0		3.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	204	96	33	392	154	67	261	21	109	281	76
Future Volume (veh/h)	94	204	96	33	392	154	67	261	21	109	281	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	210	99	34	404	159	69	269	22	112	290	78
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	457	852	386	574	897	348	218	434	32	659	876	231
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	846	2363	1069	1068	2487	966	203	1371	102	1086	2770	730
Grp Volume(v), veh/h	97	156	153	34	287	276	360	0	0	112	184	184
Grp Sat Flow(s),veh/h/ln	846	1777	1656	1068	1777	1676	1677	0	0	1086	1777	1723
Q Serve(g_s), s	2.8	1.7	1.8	0.6	3.4	3.5	2.0	0.0	0.0	0.0	2.2	2.3
Cycle Q Clear(g_c), s	6.3	1.7	1.8	2.5	3.4	3.5	5.0	0.0	0.0	1.6	2.2	2.3
Prop In Lane	1.00		0.65	1.00		0.58	0.19		0.06	1.00		0.42
Lane Grp Cap(c), veh/h	457	641	597	574	641	604	684	0	0	659	562	545
V/C Ratio(X)	0.21	0.24	0.26	0.06	0.45	0.46	0.53	0.00	0.00	0.17	0.33	0.34
Avail Cap(c_a), veh/h	699	1148	1070	879	1148	1083	1210	0	0	1018	1148	1113
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	1.00	1.00
Uniform Delay (d), s/veh	9.2	6.2	6.3	7.1	6.8	6.8	8.1	0.0	0.0	7.1	7.3	7.3
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.0	0.5	0.5	0.6	0.0	0.0	0.1	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.2	0.1	0.4	0.4	0.8	0.0	0.0	0.2	0.4	0.4	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.4	6.4	6.5	7.2	7.3	7.4	8.8	0.0	0.0	7.2	7.6	7.7
LnGrp LOS	A	A	A	A	A	A	A			A	A	A
Approach Vol, veh/h		406			597			360			480	
Approach Delay, s/veh		7.2			7.3			8.8			7.5	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.3	14.5	13.3	14.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.8	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	7.4	8.3	4.3	5.5
Green Ext Time (p_c), s	1.5	1.5	2.0	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	7.6
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	280	49	8	427	64	68	166	8	32	140	204
Future Volume (veh/h)	131	280	49	8	427	64	68	166	8	32	140	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	156	333	45	10	508	63	81	198	4	38	167	50
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	820	110	238	829	102	352	729	15	345	727	317
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3141	420	1781	3175	392	1159	3561	72	1174	3554	1551
Grp Volume(v), veh/h	156	187	191	10	283	288	81	99	103	38	167	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1781	1777	1791	1159	1777	1856	1174	1777	1551
Q Serve(g_s), s	3.7	3.9	4.0	0.2	6.3	6.4	2.8	2.1	2.1	1.3	1.8	1.2
Cycle Q Clear(g_c), s	3.7	3.9	4.0	0.2	6.3	6.4	4.6	2.1	2.1	3.4	1.8	1.2
Prop In Lane	1.00		0.24	1.00		0.22	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	238	464	466	238	464	468	352	364	380	345	727	317
V/C Ratio(X)	0.66	0.40	0.41	0.04	0.61	0.62	0.23	0.27	0.27	0.11	0.23	0.16
Avail Cap(c_a), veh/h	278	989	993	238	949	957	914	1226	1281	916	2453	1071
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	18.5	13.7	13.7	17.0	14.6	14.6	16.8	15.0	15.0	16.5	14.9	14.7
Incr Delay (d2), s/veh	4.4	0.6	0.6	0.1	1.3	1.3	0.3	0.4	0.4	0.1	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.2	1.2	0.1	1.9	1.9	0.6	0.7	0.7	0.3	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.9	14.3	14.3	17.0	15.9	15.9	17.1	15.4	15.4	16.6	15.1	14.9
LnGrp LOS	C	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		534			581			283			255	
Approach Delay, s/veh		16.8			15.9			15.9			15.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	15.2	12.0	17.7		15.2	12.0	17.7
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0		31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	5.8	2.2	6.0		5.4	5.7	8.4
Green Ext Time (p_c), s	1.2	0.0	1.7		1.2	0.0	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	326	315	13
Future Vol, veh/h	0	9	0	326	315	13
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	-	125	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	0	343	332	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	503	166	345	0	-	0
Stage 1	332	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	498	849	1210	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	498	849	1210	-	-	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1210	-	849	-	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Control Delay (s/veh)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	7	8	0	81	0	260	5	35	352	5
Future Vol, veh/h	13	0	7	8	0	81	0	260	5	35	352	5
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	8	9	0	87	0	280	5	38	378	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	606	746	202	552	746	147	389	0	0	285	0	0
Stage 1	461	461	-	282	282	-	-	-	-	-	-	-
Stage 2	145	285	-	270	464	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	381	340	805	417	340	873	1166	-	-	1274	-	-
Stage 1	550	563	-	701	676	-	-	-	-	-	-	-
Stage 2	843	674	-	713	562	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	329	329	798	399	329	869	1161	-	-	1274	-	-
Mov Cap-2 Maneuver	329	329	-	399	329	-	-	-	-	-	-	-
Stage 1	531	544	-	701	676	-	-	-	-	-	-	-
Stage 2	755	674	-	682	543	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	10.22	0	0.71
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1161	-	-	329	798	785	1274	-	-
HCM Lane V/C Ratio	-	-	-	0.042	0.009	0.122	0.03	-	-
HCM Control Delay (s/veh)	0	-	-	16.4	9.6	10.2	7.9	-	-
HCM Lane LOS	A	-	-	C	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	17	1	50	39	2
Future Vol, veh/h	23	17	1	50	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	25	18	1	54	42	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	91	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	57	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1565	-	910	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1565	-	909	1039
Mov Cap-2 Maneuver	-	-	-	-	909	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.14	9.14
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	914	-	-	35	-
HCM Lane V/C Ratio	0.049	-	-	0.001	-
HCM Control Delay (s/veh)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	2	4	46	5	9
Future Vol, veh/h	23	2	4	46	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	25	2	4	50	5	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	27	0	85	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1587	-	917	1050
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1587	-	914	1050
Mov Cap-2 Maneuver	-	-	-	-	914	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.58	8.67
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	997	-	-	144	-
HCM Lane V/C Ratio	0.015	-	-	0.003	-
HCM Control Delay (s/veh)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

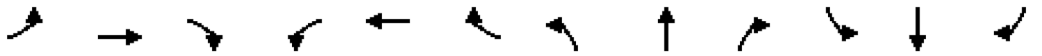
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	7	8	0	81	0	260	4	17	352	5
Future Vol, veh/h	13	0	7	8	0	81	0	260	4	17	352	5
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	8	9	0	87	0	280	4	18	378	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	568	707	202	513	707	147	389	0	0	284	0	0
Stage 1	423	423	-	282	282	-	-	-	-	-	-	-
Stage 2	145	284	-	231	425	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	406	359	805	444	358	873	1166	-	-	1275	-	-
Stage 1	579	586	-	701	677	-	-	-	-	-	-	-
Stage 2	843	675	-	751	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	357	352	798	432	352	869	1161	-	-	1275	-	-
Mov Cap-2 Maneuver	357	352	-	432	352	-	-	-	-	-	-	-
Stage 1	568	575	-	701	677	-	-	-	-	-	-	-
Stage 2	755	675	-	730	573	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.2	10.13	0	0.36
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1161	-	-	357	798	797	1275	-	-
HCM Lane V/C Ratio	-	-	-	0.039	0.009	0.12	0.014	-	-
HCM Control Delay (s/veh)	0	-	-	15.5	9.6	10.1	7.9	-	-
HCM Lane LOS	A	-	-	C	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.4	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	411	69	35	297	127	67	418	103	154	383	46
Future Volume (veh/h)	49	411	69	35	297	127	67	418	103	154	383	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	51	424	17	36	306	60	69	431	76	159	395	37
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	330	869	380	307	724	140	141	723	127	215	924	86
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.08	0.24	0.24	0.12	0.28	0.28
Sat Flow, veh/h	1013	3554	1554	946	2959	572	1781	3013	527	1781	3280	306
Grp Volume(v), veh/h	51	424	17	36	182	184	69	253	254	159	213	219
Grp Sat Flow(s),veh/h/ln	1013	1777	1554	946	1777	1754	1781	1777	1763	1781	1777	1808
Q Serve(g_s), s	1.9	4.3	0.3	1.4	3.6	3.7	1.6	5.3	5.4	3.6	4.1	4.1
Cycle Q Clear(g_c), s	5.6	4.3	0.3	5.7	3.6	3.7	1.6	5.3	5.4	3.6	4.1	4.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.30	1.00		0.17
Lane Grp Cap(c), veh/h	330	869	380	307	435	429	141	427	423	215	501	510
V/C Ratio(X)	0.15	0.49	0.04	0.12	0.42	0.43	0.49	0.59	0.60	0.74	0.43	0.43
Avail Cap(c_a), veh/h	676	2082	910	629	1041	1027	405	1041	1033	405	1041	1059
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	15.7	13.5	12.1	16.0	13.3	13.3	18.5	14.1	14.1	17.7	12.3	12.3
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.1	0.5	0.6	2.6	1.3	1.4	4.9	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.1	0.2	1.1	1.1	0.6	1.6	1.7	1.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.9	13.9	12.1	16.1	13.8	13.9	21.1	15.4	15.5	22.7	12.8	12.8
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		492			402			576			591	
Approach Delay, s/veh		14.1			14.1			16.1			15.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	15.5		15.7	8.8	17.3		15.7				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	5.6	7.4		7.6	3.6	6.1		7.7				
Green Ext Time (p_c), s	0.1	2.4		2.2	0.1	2.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	377	85	84	249	189	72	256	25	139	235	71
Future Volume (veh/h)	87	377	85	84	249	189	72	256	25	139	235	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	96	414	93	92	274	208	79	281	27	153	258	78
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	1030	229	471	695	509	224	439	38	643	888	262
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	911	2878	640	891	1941	1421	222	1331	117	1069	2693	794
Grp Volume(v), veh/h	96	254	253	92	250	232	387	0	0	153	168	168
Grp Sat Flow(s),veh/h/ln	911	1777	1742	891	1777	1585	1670	0	0	1069	1777	1710
Q Serve(g_s), s	2.6	3.1	3.1	2.5	3.0	3.2	2.6	0.0	0.0	0.0	2.0	2.1
Cycle Q Clear(g_c), s	5.7	3.1	3.1	5.6	3.0	3.2	5.6	0.0	0.0	2.6	2.0	2.1
Prop In Lane	1.00		0.37	1.00		0.90	0.20		0.07	1.00		0.46
Lane Grp Cap(c), veh/h	476	636	623	471	636	567	701	0	0	643	586	564
V/C Ratio(X)	0.20	0.40	0.41	0.20	0.39	0.41	0.55	0.00	0.00	0.24	0.29	0.30
Avail Cap(c_a), veh/h	719	1110	1088	709	1110	990	1170	0	0	958	1110	1068
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	1.00	1.00
Uniform Delay (d), s/veh	9.1	6.9	7.0	9.1	6.9	7.0	8.3	0.0	0.0	7.4	7.1	7.2
Incr Delay (d2), s/veh	0.2	0.4	0.4	0.2	0.4	0.5	0.7	0.0	0.0	0.2	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.4	0.2	0.4	0.4	0.9	0.0	0.0	0.3	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.3	7.3	7.4	9.3	7.3	7.4	8.9	0.0	0.0	7.5	7.4	7.5
LnGrp LOS	A	A	A	A	A	A	A			A	A	A
Approach Vol, veh/h		603			574			387			489	
Approach Delay, s/veh		7.7			7.7			8.9			7.5	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	14.0	14.8	14.0	14.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	7.6	7.7	4.6	7.6
Green Ext Time (p_c), s	1.6	2.3	2.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	7.9
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	384	35	12	236	59	38	157	5	58	166	114
Future Volume (veh/h)	147	384	35	12	236	59	38	157	5	58	166	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	191	499	39	16	306	51	49	204	3	75	216	31
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	1044	81	43	613	101	370	795	12	381	788	344
Arrive On Green	0.14	0.31	0.31	0.02	0.20	0.20	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3335	260	1781	3043	501	1128	3584	53	1170	3554	1552
Grp Volume(v), veh/h	191	265	273	16	177	180	49	101	106	75	216	31
Grp Sat Flow(s),veh/h/ln	1781	1777	1818	1781	1777	1767	1128	1777	1860	1170	1777	1552
Q Serve(g_s), s	4.2	4.9	5.0	0.4	3.6	3.7	1.5	1.9	1.9	2.3	2.1	0.6
Cycle Q Clear(g_c), s	4.2	4.9	5.0	0.4	3.6	3.7	3.6	1.9	1.9	4.2	2.1	0.6
Prop In Lane	1.00		0.14	1.00		0.28	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	242	556	569	43	358	356	370	394	412	381	788	344
V/C Ratio(X)	0.79	0.48	0.48	0.37	0.49	0.51	0.13	0.26	0.26	0.20	0.27	0.09
Avail Cap(c_a), veh/h	305	1088	1113	262	1044	1039	976	1349	1412	1009	2698	1179
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	17.1	11.3	11.3	19.6	14.5	14.5	14.7	13.1	13.1	14.9	13.2	12.6
Incr Delay (d2), s/veh	10.3	0.6	0.6	5.1	1.1	1.1	0.2	0.3	0.3	0.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.3	1.3	0.2	1.1	1.1	0.3	0.6	0.6	0.5	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.4	12.0	12.0	24.7	15.5	15.6	14.8	13.4	13.4	15.1	13.4	12.7
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		729			373			256			322	
Approach Delay, s/veh		16.0			16.0			13.7			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	15.1	7.0	18.8		15.1	11.6	14.2
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0		31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	5.6	2.4	7.0		6.2	6.2	5.7
Green Ext Time (p_c), s	1.1	0.0	2.5		1.5	0.0	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	291	310	13
Future Vol, veh/h	0	7	0	291	310	13
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	-	125	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	342	365	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	536	182	380	0	-	0
Stage 1	365	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	475	829	1175	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	475	829	1175	-	-	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.39	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1175	-	829	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s/veh)	0	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	2	4	1	2	56	3	293	8	99	272	6
Future Vol, veh/h	15	2	4	1	2	56	3	293	8	99	272	6
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	2	4	1	2	60	3	315	9	106	292	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	684	844	159	691	843	167	304	0	0	324	0	0
Stage 1	514	514	-	326	326	-	-	-	-	-	-	-
Stage 2	170	330	-	365	517	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	335	299	857	331	299	848	1254	-	-	1233	-	-
Stage 1	512	534	-	661	647	-	-	-	-	-	-	-
Stage 2	815	644	-	626	532	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	279	271	849	296	271	844	1248	-	-	1233	-	-
Mov Cap-2 Maneuver	279	271	-	296	271	-	-	-	-	-	-	-
Stage 1	465	485	-	659	645	-	-	-	-	-	-	-
Stage 2	749	643	-	564	484	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	17.04	10.13	0.08	2.15
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	278	849	765	1233	-	-
HCM Lane V/C Ratio	0.003	-	-	0.066	0.005	0.083	0.086	-	-
HCM Control Delay (s/veh)	7.9	-	-	18.9	9.3	10.1	8.2	-	-
HCM Lane LOS	A	-	-	C	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.3	0.3	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	43	2	31	28	1
Future Vol, veh/h	66	43	2	31	28	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	72	47	2	34	30	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	118	0	133	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1470	-	861	962
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1470	-	859	962
Mov Cap-2 Maneuver	-	-	-	-	859	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	983	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.45	9.33
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	109	-
HCM Lane V/C Ratio	0.037	-	-	0.001	-
HCM Control Delay (s/veh)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	5	10	30	3	6
Future Vol, veh/h	62	5	10	30	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	67	5	11	33	3	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	124	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1527	-	870	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	864	993
Mov Cap-2 Maneuver	-	-	-	-	864	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	1.84	8.85
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	946	-	-	450	-
HCM Lane V/C Ratio	0.01	-	-	0.007	-
HCM Control Delay (s/veh)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

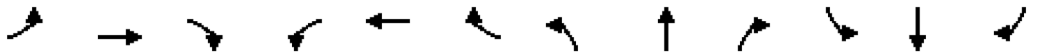
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	2	4	1	2	56	3	293	6	53	272	6
Future Vol, veh/h	15	2	4	1	2	56	3	293	6	53	272	6
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,-#	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	2	4	1	2	60	3	315	6	57	292	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	585	743	159	591	743	166	304	0	0	322	0	0
Stage 1	415	415	-	325	325	-	-	-	-	-	-	-
Stage 2	170	328	-	266	418	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	395	342	857	391	342	849	1254	-	-	1235	-	-
Stage 1	586	591	-	662	648	-	-	-	-	-	-	-
Stage 2	815	646	-	716	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	343	324	849	366	324	845	1248	-	-	1235	-	-
Mov Cap-2 Maneuver	343	324	-	366	324	-	-	-	-	-	-	-
Stage 1	556	561	-	660	646	-	-	-	-	-	-	-
Stage 2	749	644	-	674	559	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	9.99	0.08	1.29
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	343	551	785	1235	-	-
HCM Lane V/C Ratio	0.003	-	-	0.047	0.012	0.081	0.046	-	-
HCM Control Delay (s/veh)	7.9	-	-	16	11.6	10	8.1	-	-
HCM Lane LOS	A	-	-	C	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.3	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	245	81	66	537	196	68	529	43	137	501	50
Future Volume (veh/h)	27	245	81	66	537	196	68	529	43	137	501	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	266	27	72	584	163	74	575	39	149	545	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1091	478	416	839	234	137	860	58	192	950	77
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.25	0.25	0.11	0.29	0.29
Sat Flow, veh/h	713	3554	1556	1083	2733	761	1781	3372	228	1781	3325	268
Grp Volume(v), veh/h	29	266	27	72	379	368	74	302	312	149	291	298
Grp Sat Flow(s),veh/h/ln	713	1777	1556	1083	1777	1717	1781	1777	1824	1781	1777	1816
Q Serve(g_s), s	1.9	2.8	0.6	2.7	9.4	9.5	2.0	7.6	7.7	4.1	7.0	7.0
Cycle Q Clear(g_c), s	11.3	2.8	0.6	5.5	9.4	9.5	2.0	7.6	7.7	4.1	7.0	7.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.13	1.00		0.15
Lane Grp Cap(c), veh/h	228	1091	478	416	546	527	137	453	465	192	508	519
V/C Ratio(X)	0.13	0.24	0.06	0.17	0.69	0.70	0.54	0.67	0.67	0.77	0.57	0.57
Avail Cap(c_a), veh/h	359	1741	762	614	871	841	338	871	894	338	871	890
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	20.3	13.0	12.2	15.0	15.3	15.3	22.2	16.7	16.7	21.7	15.2	15.3
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.2	1.4	1.4	3.3	1.7	1.7	6.5	1.0	1.0
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	0.3	0.9	0.2	0.5	3.0	2.9	0.8	2.6	2.7	1.7	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.5	13.1	12.3	15.2	16.6	16.7	25.5	18.4	18.4	28.3	16.3	16.3
LnGrp LOS	C	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		322			819			688			738	
Approach Delay, s/veh		13.7			16.5			19.2			18.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	18.3		20.9	9.4	19.8		20.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.1	9.7		13.3	4.0	9.0		11.5				
Green Ext Time (p_c), s	0.1	2.8		1.1	0.1	2.7		3.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.5
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	231	112	57	421	154	82	397	41	109	421	76
Future Volume (veh/h)	94	231	112	57	421	154	82	397	41	109	421	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	238	115	59	434	159	85	409	42	112	434	78
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	381	814	379	485	884	321	186	535	51	534	1183	211
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	823	2339	1089	1026	2541	921	169	1358	130	938	3004	536
Grp Volume(v), veh/h	97	179	174	59	302	291	536	0	0	112	255	257
Grp Sat Flow(s),veh/h/ln	823	1777	1651	1026	1777	1685	1657	0	0	938	1777	1763
Q Serve(g_s), s	3.7	2.5	2.7	1.6	4.7	4.7	5.4	0.0	0.0	0.0	3.5	3.6
Cycle Q Clear(g_c), s	3.4	2.5	2.7	4.2	4.7	4.7	9.8	0.0	0.0	3.5	3.5	3.6
Prop In Lane	1.00		0.66	1.00		0.55	0.16		0.08	1.00		0.30
Lane Grp Cap(c), veh/h	381	618	575	485	618	586	772	0	0	534	700	694
V/C Ratio(X)	0.25	0.29	0.30	0.12	0.49	0.50	0.69	0.00	0.00	0.21	0.36	0.37
Avail Cap(c_a), veh/h	520	918	853	657	918	870	965	0	0	649	918	910
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	1.00	1.00
Uniform Delay (d), s/veh	12.3	8.2	8.3	9.8	8.9	9.0	9.2	0.0	0.0	7.5	7.5	7.5
Incr Delay (d2), s/veh	0.3	0.3	0.3	0.1	0.6	0.7	1.6	0.0	0.0	0.2	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.5	0.2	0.9	0.9	1.9	0.0	0.0	0.3	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.6	8.5	8.6	9.9	9.5	9.6	10.8	0.0	0.0	7.7	7.8	7.8
LnGrp LOS	B	A	A	A	A	A	B			A	A	A
Approach Vol, veh/h		450			652			536			624	
Approach Delay, s/veh		9.4			9.6			10.8			7.8	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	18.2	16.6	18.2	16.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	11.8	10.4	5.6	6.7
Green Ext Time (p_c), s	1.7	1.4	2.6	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	9.3
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	323	53	10	468	64	80	204	14	32	153	204
Future Volume (veh/h)	131	323	53	10	468	64	80	204	14	32	153	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	156	385	51	12	557	64	95	243	10	38	182	51
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	854	112	226	869	100	356	767	31	334	784	342
Arrive On Green	0.13	0.27	0.27	0.13	0.27	0.27	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3149	414	1781	3205	367	1142	3476	142	1122	3554	1552
Grp Volume(v), veh/h	156	216	220	12	308	313	95	124	129	38	182	51
Grp Sat Flow(s),veh/h/ln	1781	1777	1786	1781	1777	1796	1142	1777	1841	1122	1777	1552
Q Serve(g_s), s	4.0	4.8	4.8	0.3	7.2	7.3	3.5	2.8	2.8	1.4	2.0	1.3
Cycle Q Clear(g_c), s	4.0	4.8	4.8	0.3	7.2	7.3	5.5	2.8	2.8	4.2	2.0	1.3
Prop In Lane	1.00		0.23	1.00		0.20	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	226	482	484	226	482	487	356	392	406	334	784	342
V/C Ratio(X)	0.69	0.45	0.45	0.05	0.64	0.64	0.27	0.32	0.32	0.11	0.23	0.15
Avail Cap(c_a), veh/h	264	941	946	226	903	913	854	1166	1209	823	2333	1019
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	19.7	14.3	14.3	18.1	15.2	15.2	17.4	15.4	15.4	17.2	15.1	14.8
Incr Delay (d2), s/veh	6.1	0.7	0.7	0.1	1.4	1.4	0.4	0.5	0.4	0.1	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.4	1.5	0.1	2.3	2.3	0.7	0.9	0.9	0.3	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.8	14.9	15.0	18.2	16.6	16.6	17.8	15.9	15.9	17.3	15.3	15.0
LnGrp LOS	C	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		592			633			348			271	
Approach Delay, s/veh		17.8			16.6			16.4			15.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	16.4	12.0	18.8		16.4	12.0	18.8
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0		31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	7.5	2.3	6.8		6.2	6.0	9.3
Green Ext Time (p_c), s	1.5	0.0	2.0		1.3	0.0	2.8

Intersection Summary	
HCM 7th Control Delay, s/veh	16.8
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	497	495	13
Future Vol, veh/h	0	9	0	497	495	13
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	-	125	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	0	523	521	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	783	261	535	0	-	0
Stage 1	521	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	331	738	1029	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	331	738	1029	-	-	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1029	-	738	-	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s/veh)	0	-	9.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	7	8	0	81	0	431	5	35	532	5
Future Vol, veh/h	13	0	7	8	0	81	0	431	5	35	532	5
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	8	9	0	87	0	463	5	38	572	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	892	1124	299	832	1124	239	582	0	0	469	0	0
Stage 1	655	655	-	466	466	-	-	-	-	-	-	-
Stage 2	237	469	-	366	658	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	237	204	697	261	204	762	988	-	-	1089	-	-
Stage 1	421	461	-	546	561	-	-	-	-	-	-	-
Stage 2	745	559	-	625	459	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	196	691	248	196	758	983	-	-	1089	-	-
Mov Cap-2 Maneuver	200	196	-	248	196	-	-	-	-	-	-	-
Stage 1	405	443	-	546	561	-	-	-	-	-	-	-
Stage 2	656	559	-	594	442	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.39	11.61	0	0.52
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	200	691	640	1089	-	-
HCM Lane V/C Ratio	-	-	-	0.07	0.011	0.15	0.035	-	-
HCM Control Delay (s/veh)	0	-	-	24.3	10.3	11.6	8.4	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	17	1	50	39	2
Future Vol, veh/h	23	17	1	50	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	25	18	1	54	42	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	91	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	57	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1565	-	910	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1565	-	909	1039
Mov Cap-2 Maneuver	-	-	-	-	909	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.14	9.14
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	914	-	-	35	-
HCM Lane V/C Ratio	0.049	-	-	0.001	-
HCM Control Delay (s/veh)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	2	4	46	5	9
Future Vol, veh/h	23	2	4	46	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	25	2	4	50	5	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	27	0	85	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1587	-	917	1050
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1587	-	914	1050
Mov Cap-2 Maneuver	-	-	-	-	914	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.58	8.67
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	997	-	-	144	-
HCM Lane V/C Ratio	0.015	-	-	0.003	-
HCM Control Delay (s/veh)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

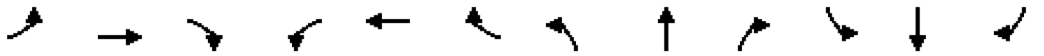
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	7	8	0	81	0	431	4	17	532	5
Future Vol, veh/h	13	0	7	8	0	81	0	431	4	17	532	5
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,-#	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	8	9	0	87	0	463	4	18	572	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	853	1084	299	793	1085	239	582	0	0	468	0	0
Stage 1	616	616	-	466	466	-	-	-	-	-	-	-
Stage 2	237	468	-	328	619	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	253	216	697	279	215	762	988	-	-	1090	-	-
Stage 1	444	480	-	546	561	-	-	-	-	-	-	-
Stage 2	745	560	-	659	478	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	218	211	691	270	211	759	983	-	-	1090	-	-
Mov Cap-2 Maneuver	218	211	-	270	211	-	-	-	-	-	-	-
Stage 1	435	470	-	546	561	-	-	-	-	-	-	-
Stage 2	657	560	-	638	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18.32	11.46	0	0.26
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	218	691	653	1090	-	-
HCM Lane V/C Ratio	-	-	-	0.064	0.011	0.147	0.017	-	-
HCM Control Delay (s/veh)	0	-	-	22.7	10.3	11.5	8.4	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.5	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	454	69	35	338	127	67	589	103	154	554	46
Future Volume (veh/h)	49	454	69	35	338	127	67	589	103	154	554	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	51	468	17	36	348	72	69	607	87	159	571	41
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	294	890	389	276	733	150	134	895	128	205	1099	79
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.08	0.29	0.29	0.12	0.33	0.33
Sat Flow, veh/h	964	3554	1554	908	2927	598	1781	3112	445	1781	3358	241
Grp Volume(v), veh/h	51	468	17	36	209	211	69	346	348	159	302	310
Grp Sat Flow(s),veh/h/ln	964	1777	1554	908	1777	1749	1781	1777	1780	1781	1777	1822
Q Serve(g_s), s	2.3	5.4	0.4	1.7	4.8	4.9	1.8	8.2	8.2	4.1	6.5	6.6
Cycle Q Clear(g_c), s	7.1	5.4	0.4	7.1	4.8	4.9	1.8	8.2	8.2	4.1	6.5	6.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.25	1.00		0.13
Lane Grp Cap(c), veh/h	294	890	389	276	445	438	134	511	512	205	581	596
V/C Ratio(X)	0.17	0.53	0.04	0.13	0.47	0.48	0.51	0.68	0.68	0.78	0.52	0.52
Avail Cap(c_a), veh/h	549	1830	800	516	915	901	356	915	917	356	915	938
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	18.2	15.4	13.5	18.5	15.1	15.2	21.2	15.0	15.0	20.5	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.2	0.7	0.7	3.0	1.6	1.6	6.2	0.7	0.7
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	0.4	1.7	0.1	0.3	1.5	1.5	0.7	2.6	2.7	1.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	15.8	13.5	18.6	15.8	15.9	24.2	16.6	16.6	26.6	13.7	13.7
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		536			456			763			771	
Approach Delay, s/veh		16.0			16.1			17.3			16.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	19.2		17.4	9.1	21.1		17.4				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.1	10.2		9.1	3.8	8.6		9.1				
Green Ext Time (p_c), s	0.1	3.2		2.3	0.0	2.9		1.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.5
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	408	104	110	281	189	91	427	53	139	406	71
Future Volume (veh/h)	87	408	104	110	281	189	91	427	53	139	406	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	96	448	114	121	309	208	100	469	58	153	446	78
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	987	249	373	720	471	180	553	64	453	1277	222
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	883	2799	706	847	2042	1337	179	1307	151	875	3018	524
Grp Volume(v), veh/h	96	283	279	121	268	249	627	0	0	153	261	263
Grp Sat Flow(s),veh/h/ln	883	1777	1728	847	1777	1602	1637	0	0	875	1777	1766
Q Serve(g_s), s	3.8	4.9	5.0	5.2	4.6	4.8	9.4	0.0	0.0	0.0	4.0	4.0
Cycle Q Clear(g_c), s	3.8	4.9	5.0	10.2	4.6	4.8	14.1	0.0	0.0	7.9	4.0	4.0
Prop In Lane	1.00		0.41	1.00		0.83	0.16		0.09	1.00		0.30
Lane Grp Cap(c), veh/h	385	627	610	373	627	565	797	0	0	453	751	747
V/C Ratio(X)	0.25	0.45	0.46	0.32	0.43	0.44	0.79	0.00	0.00	0.34	0.35	0.35
Avail Cap(c_a), veh/h	470	798	776	454	798	719	837	0	0	476	798	793
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	1.00	1.00
Uniform Delay (d), s/veh	13.2	10.0	10.0	13.9	9.9	10.0	10.5	0.0	0.0	8.9	7.8	7.8
Incr Delay (d2), s/veh	0.3	0.5	0.5	0.5	0.5	0.5	4.8	0.0	0.0	0.4	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	1.2	1.2	0.7	1.1	1.0	3.6	0.0	0.0	0.6	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.6	10.5	10.6	14.4	10.4	10.5	15.3	0.0	0.0	9.4	8.1	8.1
LnGrp LOS	B	B	B	B	B	B	B			A	A	A
Approach Vol, veh/h		658			638			627			677	
Approach Delay, s/veh		11.0			11.2			15.3			8.4	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.5	18.6	21.5	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	16.1	10.5	9.9	12.2
Green Ext Time (p_c), s	0.8	2.1	2.3	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	11.4
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	431	47	18	287	59	45	182	9	58	207	114
Future Volume (veh/h)	147	431	47	18	287	59	45	182	9	58	207	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	191	560	53	23	373	56	58	236	8	75	269	32
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	1052	99	60	678	101	348	816	28	365	827	361
Arrive On Green	0.14	0.32	0.32	0.03	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3276	309	1781	3093	460	1074	3505	118	1131	3554	1553
Grp Volume(v), veh/h	191	303	310	23	213	216	58	119	125	75	269	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1808	1781	1777	1776	1074	1777	1846	1131	1777	1553
Q Serve(g_s), s	4.5	6.1	6.1	0.6	4.6	4.7	2.1	2.4	2.4	2.5	2.7	0.7
Cycle Q Clear(g_c), s	4.5	6.1	6.1	0.6	4.6	4.7	4.8	2.4	2.4	5.0	2.7	0.7
Prop In Lane	1.00		0.17	1.00		0.26	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	241	571	581	60	389	389	348	414	430	365	827	361
V/C Ratio(X)	0.79	0.53	0.53	0.39	0.55	0.56	0.17	0.29	0.29	0.21	0.33	0.09
Avail Cap(c_a), veh/h	286	1018	1036	245	978	977	861	1263	1312	906	2526	1104
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	18.3	12.1	12.1	20.6	15.1	15.1	15.9	13.8	13.8	15.8	13.9	13.1
Incr Delay (d2), s/veh	12.1	0.8	0.8	4.0	1.2	1.2	0.2	0.4	0.4	0.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.7	1.7	0.2	1.4	1.5	0.4	0.7	0.7	0.5	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.3	12.9	12.9	24.7	16.3	16.4	16.1	14.1	14.1	16.1	14.1	13.2
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		804			452			302			376	
Approach Delay, s/veh		17.0			16.8			14.5			14.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s	16.2	7.5	20.0		16.2	11.9	15.6					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	31.0	6.0	25.0		31.0	7.0	24.0					
Max Q Clear Time (g_c+I1), s	6.8	2.6	8.1		7.0	6.5	6.7					
Green Ext Time (p_c), s	1.3	0.0	2.9		1.8	0.0	1.9					

Intersection Summary	
HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	509	526	13
Future Vol, veh/h	0	7	0	509	526	13
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	-	125	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	599	619	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	918	309	634	0	-	0
Stage 1	619	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	271	686	945	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	271	686	945	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	945	-	686	-	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Control Delay (s/veh)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	2	4	1	2	56	3	511	8	99	488	6
Future Vol, veh/h	15	2	4	1	2	56	3	511	8	99	488	6
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	2	4	1	2	60	3	549	9	106	525	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1033	1310	276	1042	1309	284	536	0	0	558	0	0
Stage 1	746	746	-	560	560	-	-	-	-	-	-	-
Stage 2	287	565	-	481	749	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	187	158	722	184	158	713	1028	-	-	1009	-	-
Stage 1	372	419	-	480	509	-	-	-	-	-	-	-
Stage 2	696	506	-	535	417	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	140	715	160	140	709	1023	-	-	1009	-	-
Mov Cap-2 Maneuver	149	140	-	160	140	-	-	-	-	-	-	-
Stage 1	331	373	-	479	507	-	-	-	-	-	-	-
Stage 2	629	505	-	470	372	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	28.6	11.79	0.05	1.5
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1023	-	-	148	715	593	1009	-	-
HCM Lane V/C Ratio	0.003	-	-	0.124	0.006	0.107	0.106	-	-
HCM Control Delay (s/veh)	8.5	-	-	32.8	10.1	11.8	9	-	-
HCM Lane LOS	A	-	-	D	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0.4	0.4	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	43	2	31	28	1
Future Vol, veh/h	66	43	2	31	28	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	72	47	2	34	30	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	118	0	133	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1470	-	861	962
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1470	-	859	962
Mov Cap-2 Maneuver	-	-	-	-	859	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	983	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	0.45	9.33
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	109	-
HCM Lane V/C Ratio	0.037	-	-	0.001	-
HCM Control Delay (s/veh)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	5	10	30	3	6
Future Vol, veh/h	62	5	10	30	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	67	5	11	33	3	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	124	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1527	-	870	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	864	993
Mov Cap-2 Maneuver	-	-	-	-	864	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s/veh	0	1.84	8.85
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	946	-	-	450	-
HCM Lane V/C Ratio	0.01	-	-	0.007	-
HCM Control Delay (s/veh)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	2	4	1	2	56	3	511	6	53	488	6
Future Vol, veh/h	15	2	4	1	2	56	3	511	6	53	488	6
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	210	-	-	-	200	-	-	200	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	2	4	1	2	60	3	549	6	57	525	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	934	1209	276	942	1209	283	536	0	0	556	0	0
Stage 1	647	647	-	559	559	-	-	-	-	-	-	-
Stage 2	287	562	-	382	650	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	220	181	722	218	181	714	1028	-	-	1011	-	-
Stage 1	426	465	-	481	509	-	-	-	-	-	-	-
Stage 2	696	508	-	612	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	186	170	715	200	170	711	1023	-	-	1011	-	-
Mov Cap-2 Maneuver	186	170	-	200	170	-	-	-	-	-	-	-
Stage 1	400	436	-	479	508	-	-	-	-	-	-	-
Stage 2	629	506	-	568	435	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	23.9	11.5	0.05	0.85
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1023	-	-	186	345	617	1011	-	-
HCM Lane V/C Ratio	0.003	-	-	0.087	0.019	0.103	0.056	-	-
HCM Control Delay (s/veh)	8.5	-	-	26.2	15.6	11.5	8.8	-	-
HCM Lane LOS	A	-	-	D	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0.3	0.2	-	-

Fehr & Peers

Queuing Assessment Summary

Opening Year (2030) Plus Project (Proposed Project)

Opening Year (2030) Plus Project without Improvements Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	28	210	51	220	65	210	135	170	No
2	Monroe St & 52nd Ave	45	190	18	100	--	--	51	200	No
4	Jackson St & 52nd Ave	182	275	107	175	27	225	29	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	5	150	No

Opening Year (2030) Plus Project without Improvements Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	40	210	30	220	62	210	146	170	No
2	Monroe St & 52nd Ave	43	190	43	100	--	--	86	200	No
4	Jackson St & 52nd Ave	201	275	29	175	29	225	45	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	10	150	No

Opening Year (2030) Plus Project with Improvements Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	28	210	51	220	65	210	135	170	No
2	Monroe St & 52nd Ave	46	190	18	100	--	--	54	200	No
3	Arabia St & 52nd Ave	26	150	45	150	37	150	--	--	No
4	Jackson St & 52nd Ave	182	275	107	175	27	225	29	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	5	150	No

Opening Year (2030) Plus Project with Improvements Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	40	210	30	220	62	210	146	170	No
2	Monroe St & 52nd Ave	54	190	52	100	--	--	94	200	No
3	Arabia St & 52nd Ave	22	150	6	150	23	150	--	--	No
4	Jackson St & 52nd Ave	201	275	29	175	29	225	45	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	10	150	No

Source: Fehr & Peers 2026, Synchro 12 (HCM 7th Edition).

Opening Year (2030) Plus Project Plus Cumulative Projects (Proposed Project)

Opening Year (2030) Plus Project Plus Cumulative without Improvements Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	30	210	52	220	66	210	139	170	No
2	Monroe St & 52nd Ave	46	190	27	100	--	--	58	200	No
4	Jackson St & 52nd Ave	182	275	110	175	36	225	30	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	5	150	No

Opening Year (2030) Plus Project Plus Cumulative without Improvements Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	44	210	34	220	65	210	159	170	No
2	Monroe St & 52nd Ave	43	190	57	100	--	--	138	200	No
4	Jackson St & 52nd Ave	201	275	36	175	34	225	46	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	10	150	No

Opening Year (2030) Plus Project Plus Cumulative with Improvements Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	30	210	52	220	66	210	139	170	No
2	Monroe St & 52nd Ave	66	190	38	100	--	--	58	200	No
3	Arabia St & 52nd Ave	26	150	46	150	37	150	--	--	No
4	Jackson St & 52nd Ave	182	275	110	175	36	225	30	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	5	150	No

Opening Year (2030) Plus Project Plus Cumulative with Improvements Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	44	210	34	220	65	210	159	170	No
2	Monroe St & 52nd Ave	63	190	77	100	--	--	77	200	No
3	Arabia St & 52nd Ave	23	150	6	150	24	150	--	--	No
4	Jackson St & 52nd Ave	201	275	36	175	34	225	46	275	No
5	Monroe St & Driveway A	--	--	--	--	2	150	10	150	No

Source: Fehr & Peers 2026, Synchro 12 (HCM 7th Edition).

Project Alternative

Project Alternative Opening Year (2030) Plus Project Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	28	210	51	220	67	210	135	170	No
2	Monroe St & 52nd Ave	44	190	18	100	--	--	44	200	No
4	Jackson St & 52nd Ave	182	275	19	175	53	225	29	275	No

Project Alternative Opening Year (2030) Plus Project Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	40	210	30	220	63	210	146	170	No
2	Monroe St & 52nd Ave	43	190	42	100	--	--	59	200	No
4	Jackson St & 52nd Ave	201	275	23	175	32	225	45	275	No

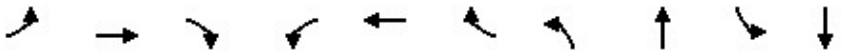
Project Alternative Opening Year (2030) Plus Project Plus Cumulative Queuing Summary – AM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	31	210	53	220	69	210	141	170	No
2	Monroe St & 52nd Ave	46	190	27	100	--	--	50	200	No
4	Jackson St & 52nd Ave	182	275	21	175	61	225	29	275	No

Project Alternative Opening Year (2030) Plus Project Plus Cumulative Queuing Summary – PM Peak Hour

ID	Intersection	EBL Queue	EBL Storage	WBL Queue	WBL Storage	NBL Queue	NBL Storage	SBL Queue	SBL Storage	Excessive Queue?
1	Monroe St & 50th Ave	45	210	34	220	67	210	159	170	No
2	Monroe St & 52nd Ave	43	190	57	100	--	--	75	200	No
4	Jackson St & 52nd Ave	201	275	29	175	37	225	46	275	No

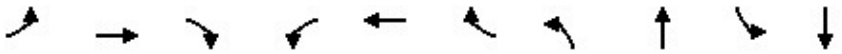
Source: Fehr & Peers 2026, Synchro 12 (HCM 7th Edition).



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	26	198	76	65	487	193	59	406	135	396
v/c Ratio	0.17	0.31	0.13	0.16	0.77	0.22	0.26	0.53	0.51	0.34
Control Delay (s/veh)	17.8	16.5	2.1	15.6	27.7	2.0	28.5	22.4	33.0	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.8	16.5	2.1	15.6	27.7	2.0	28.5	22.4	33.0	17.6
Queue Length 50th (ft)	6	50	0	16	150	0	20	66	45	60
Queue Length 95th (ft)	26	112	13	46	#326	24	56	111	#114	107
Internal Link Dist (ft)		962			1076			1034		946
Turn Bay Length (ft)	210		120	220			210		170	
Base Capacity (vph)	202	810	742	510	810	889	298	1520	298	1517
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.24	0.10	0.13	0.60	0.22	0.20	0.27	0.45	0.26

Intersection Summary

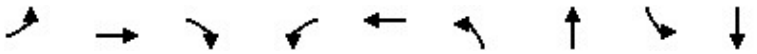
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	385	56	32	278	119	57	471	144	376
v/c Ratio	0.16	0.70	0.10	0.17	0.51	0.15	0.24	0.57	0.51	0.30
Control Delay (s/veh)	16.7	25.5	0.9	17.7	20.2	2.2	27.0	20.3	31.7	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.7	25.5	0.9	17.7	20.2	2.2	27.0	20.3	31.7	15.9
Queue Length 50th (ft)	11	111	0	8	75	0	17	65	43	50
Queue Length 95th (ft)	36	223	4	29	156	19	55	123	#129	102
Internal Link Dist (ft)		962			1076			1034		946
Turn Bay Length (ft)	210		120	220			210		170	
Base Capacity (vph)	442	859	779	298	859	804	316	1597	316	1611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.07	0.11	0.32	0.15	0.18	0.29	0.46	0.23

Intersection Summary

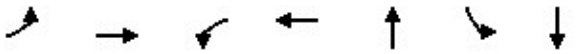
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	218	86	72	749	71	435	149	449
v/c Ratio	0.19	0.19	0.15	0.20	0.66	0.26	0.50	0.48	0.41
Control Delay (s/veh)	18.9	15.1	2.8	16.8	17.9	26.8	20.2	30.6	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.9	15.1	2.8	16.8	17.9	26.8	20.2	30.6	17.1
Queue Length 50th (ft)	7	27	0	17	98	21	64	45	62
Queue Length 95th (ft)	28	58	18	51	180	65	118	#135	122
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	244	1793	845	577	1749	347	1770	347	1770
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.10	0.12	0.43	0.20	0.25	0.43	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	309	34	576	311	133	347
v/c Ratio	0.36	0.26	0.10	0.47	0.55	0.31	0.27
Control Delay (s/veh)	13.0	6.1	8.7	7.4	12.3	10.0	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.0	6.1	8.7	7.4	12.3	10.0	6.4
Queue Length 50th (ft)	11	11	3	24	34	14	14
Queue Length 95th (ft)	45	36	18	65	109	51	43
Internal Link Dist (ft)		927		2568	1157		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	497	2100	645	2135	966	745	2124
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.15	0.05	0.27	0.32	0.18	0.16

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	414	92	502	35	247	38	219	188
v/c Ratio	0.61	0.35	0.42	0.56	0.14	0.31	0.15	0.27	0.38
Control Delay (s/veh)	38.5	15.5	33.6	19.0	16.9	16.8	17.1	16.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.5	15.5	33.6	19.0	16.9	16.8	17.1	16.8	5.4
Queue Length 50th (ft)	39	43	23	56	8	29	8	26	0
Queue Length 95th (ft)	#182	110	#107	136	27	62	29	56	31
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	256	1804	220	1730	734	2266	715	2275	1068
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.23	0.42	0.29	0.05	0.11	0.05	0.10	0.18

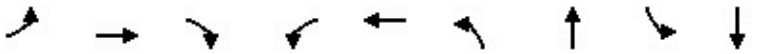
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	38	244	1	16	313	14
v/c Ratio	0.05	0.10	0.08	0.00	0.02	0.10	0.01
Control Delay (s/veh)	3.0	4.3	1.9	0.0	2.7	1.9	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.0	4.3	1.9	0.0	2.7	1.9	1.1
Queue Length 50th (ft)	0	0	0	0	0	0	0
Queue Length 95th (ft)	5	9	17	0	5	22	2
Internal Link Dist (ft)	538	263	602			609	
Turn Bay Length (ft)				200	100		120
Base Capacity (vph)	1253	1154	3317	1486	1048	3317	1486
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.07	0.00	0.02	0.09	0.01

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	218	86	72	749	71	435	149	449
v/c Ratio	0.19	0.19	0.15	0.20	0.66	0.26	0.50	0.48	0.41
Control Delay (s/veh)	18.9	15.1	2.8	16.8	17.9	26.8	20.2	30.6	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.9	15.1	2.8	16.8	17.9	26.8	20.2	30.6	17.1
Queue Length 50th (ft)	7	27	0	17	98	21	64	45	62
Queue Length 95th (ft)	28	58	18	51	180	65	118	#135	122
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	244	1793	845	577	1749	347	1770	347	1770
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.10	0.12	0.43	0.20	0.25	0.43	0.25

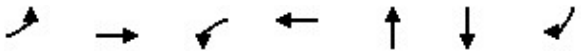
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	212	97	34	576	311	133	347
v/c Ratio	0.35	0.18	0.16	0.09	0.47	0.54	0.31	0.27
Control Delay (s/veh)	13.0	8.4	3.3	8.8	8.4	12.4	10.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.0	8.4	3.3	8.8	8.4	12.4	10.3	6.5
Queue Length 50th (ft)	11	12	0	4	28	36	14	14
Queue Length 95th (ft)	46	34	20	18	74	114	54	45
Internal Link Dist (ft)		927			2568	1157		610
Turn Bay Length (ft)	190		175	100			200	
Base Capacity (vph)	540	2365	1072	770	2290	1413	1072	3074
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.09	0.04	0.25	0.22	0.12	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	76	412	149	536	338	4	97
v/c Ratio	0.24	0.30	0.41	0.40	0.54	0.01	0.19
Control Delay (s/veh)	8.6	5.5	10.9	7.2	6.3	8.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.6	5.5	10.9	7.2	6.3	8.7	3.9
Queue Length 50th (ft)	6	12	12	21	6	1	0
Queue Length 95th (ft)	26	35	45	54	37	4	16
Internal Link Dist (ft)		2568		2572	532	287	
Turn Bay Length (ft)	200		200				
Base Capacity (vph)	567	2323	638	2364	1123	790	1083
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.18	0.23	0.23	0.30	0.01	0.09

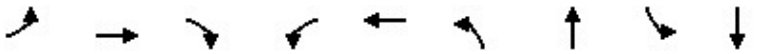
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	414	92	502	35	247	38	219	188
v/c Ratio	0.61	0.35	0.42	0.56	0.14	0.31	0.15	0.27	0.38
Control Delay (s/veh)	38.5	15.5	33.6	19.0	16.9	16.8	17.1	16.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.5	15.5	33.6	19.0	16.9	16.8	17.1	16.8	5.4
Queue Length 50th (ft)	39	43	23	56	8	29	8	26	0
Queue Length 95th (ft)	#182	110	#107	136	27	62	29	56	31
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	256	1804	220	1730	734	2266	715	2275	1068
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.23	0.42	0.29	0.05	0.11	0.05	0.10	0.18

Intersection Summary

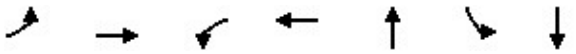
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	424	68	36	437	67	510	159	446
v/c Ratio	0.24	0.49	0.15	0.16	0.49	0.26	0.57	0.51	0.33
Control Delay (s/veh)	19.3	19.0	1.9	17.9	15.1	25.6	18.8	30.1	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	19.0	1.9	17.9	15.1	25.6	18.8	30.1	14.6
Queue Length 50th (ft)	12	57	0	8	45	18	61	41	52
Queue Length 95th (ft)	40	107	10	30	92	62	132	#146	120
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	436	1739	822	448	1700	337	1703	337	1723
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.24	0.08	0.08	0.26	0.20	0.30	0.47	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	511	95	491	352	220	270
v/c Ratio	0.33	0.44	0.34	0.40	0.58	0.52	0.21
Control Delay (s/veh)	12.7	9.0	12.8	6.0	12.7	13.5	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.7	9.0	12.8	6.0	12.7	13.5	5.5
Queue Length 50th (ft)	11	27	11	16	41	26	10
Queue Length 95th (ft)	43	67	43	48	121	86	32
Internal Link Dist (ft)		927		2565	1170		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	519	2058	510	2029	943	665	2024
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.25	0.19	0.24	0.37	0.33	0.13

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	615	23	376	43	242	75	218	140
v/c Ratio	0.72	0.37	0.10	0.46	0.16	0.29	0.29	0.27	0.30
Control Delay (s/veh)	43.3	11.6	26.9	17.2	16.7	16.2	18.7	16.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.3	11.6	26.9	17.2	16.7	16.2	18.7	16.1	5.3
Queue Length 50th (ft)	45	38	5	37	9	27	16	24	0
Queue Length 95th (ft)	#201	152	29	87	29	55	45	51	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	266	1886	228	1785	762	2357	744	2361	1086
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.33	0.10	0.21	0.06	0.10	0.10	0.09	0.13

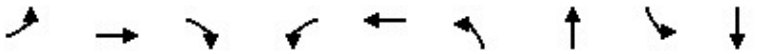
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	29	4	259	2	45	311	15
v/c Ratio	0.07	0.08	0.00	0.08	0.00	0.05	0.10	0.01
Control Delay (s/veh)	3.6	3.8	2.7	1.8	0.0	2.5	1.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.6	3.8	2.7	1.8	0.0	2.5	1.8	1.1
Queue Length 50th (ft)	0	0	0	0	0	0	0	0
Queue Length 95th (ft)	6	6	2	17	0	10	20	2
Internal Link Dist (ft)	499	317		617			581	
Turn Bay Length (ft)			125		200	100		120
Base Capacity (vph)	1261	1143	982	3314	1484	1033	3314	1484
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.00	0.08	0.00	0.04	0.09	0.01

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	424	68	36	437	67	512	159	446
v/c Ratio	0.24	0.49	0.15	0.16	0.49	0.26	0.58	0.51	0.33
Control Delay (s/veh)	19.3	19.1	1.9	17.9	15.1	25.6	18.9	30.2	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	19.1	1.9	17.9	15.1	25.6	18.9	30.2	14.6
Queue Length 50th (ft)	12	57	0	8	45	18	62	41	52
Queue Length 95th (ft)	40	107	10	30	92	62	133	#146	120
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	436	1738	822	448	1699	337	1701	337	1722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.24	0.08	0.08	0.26	0.20	0.30	0.47	0.26

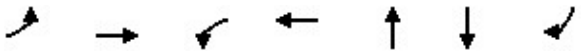
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	421	90	95	491	354	220	270
v/c Ratio	0.34	0.37	0.16	0.31	0.41	0.55	0.50	0.20
Control Delay (s/veh)	14.3	10.8	4.0	13.5	6.8	12.0	13.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.3	10.8	4.0	13.5	6.8	12.0	13.1	5.5
Queue Length 50th (ft)	12	26	0	11	16	40	25	10
Queue Length 95th (ft)	54	81	23	52	62	133	94	35
Internal Link Dist (ft)		927			2565	1170		610
Turn Bay Length (ft)	190		175	100			200	
Base Capacity (vph)	564	2272	1032	605	2185	1386	955	2927
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.19	0.09	0.16	0.22	0.26	0.23	0.09

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	107	656	18	472	147	14	75
v/c Ratio	0.29	0.45	0.06	0.33	0.33	0.05	0.17
Control Delay (s/veh)	7.9	6.8	5.5	6.0	6.8	9.4	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.9	6.8	5.5	6.0	6.8	9.4	4.4
Queue Length 50th (ft)	8	27	1	18	5	1	0
Queue Length 95th (ft)	22	45	6	32	23	8	11
Internal Link Dist (ft)		2565		2587	798	336	
Turn Bay Length (ft)	200		200				
Base Capacity (vph)	606	2376	505	2379	1032	833	1079
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.28	0.04	0.20	0.14	0.02	0.07

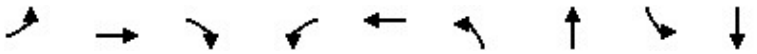
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	615	23	376	43	239	75	218	140
v/c Ratio	0.72	0.37	0.10	0.46	0.16	0.29	0.29	0.27	0.30
Control Delay (s/veh)	43.2	11.6	26.9	17.1	16.7	16.2	18.7	16.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.2	11.6	26.9	17.1	16.7	16.2	18.7	16.1	5.3
Queue Length 50th (ft)	45	38	5	37	9	26	16	24	0
Queue Length 95th (ft)	#201	152	29	87	29	54	45	51	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	267	1889	229	1788	763	2359	748	2365	1087
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.33	0.10	0.21	0.06	0.10	0.10	0.09	0.13

Intersection Summary

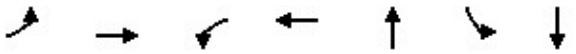
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	266	86	72	797	71	583	149	601
v/c Ratio	0.22	0.23	0.15	0.21	0.70	0.28	0.60	0.51	0.51
Control Delay (s/veh)	21.3	16.2	2.8	17.9	20.1	28.8	21.8	33.8	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.3	16.2	2.8	17.9	20.1	28.8	21.8	33.8	18.5
Queue Length 50th (ft)	8	37	0	19	121	23	95	49	93
Queue Length 95th (ft)	30	71	18	52	203	66	162	#139	167
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	193	1659	791	511	1625	321	1644	321	1680
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.16	0.11	0.14	0.49	0.22	0.35	0.46	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	353	59	606	486	133	491
v/c Ratio	0.41	0.31	0.18	0.51	0.74	0.35	0.33
Control Delay (s/veh)	15.9	7.1	10.7	9.2	18.9	11.4	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.9	7.1	10.7	9.2	18.9	11.4	7.4
Queue Length 50th (ft)	15	18	9	38	69	16	26
Queue Length 95th (ft)	46	41	27	72	#240	58	65
Internal Link Dist (ft)		927		2568	1157		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	389	1815	528	1845	826	476	1839
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.19	0.11	0.33	0.59	0.28	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	470	94	551	49	300	38	235	188
v/c Ratio	0.63	0.39	0.44	0.59	0.19	0.36	0.16	0.29	0.37
Control Delay (s/veh)	40.4	15.9	35.1	19.7	18.0	17.5	17.6	17.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.4	15.9	35.1	19.7	18.0	17.5	17.6	17.2	5.4
Queue Length 50th (ft)	41	52	24	65	11	37	9	29	0
Queue Length 95th (ft)	#182	125	#110	151	36	73	30	60	31
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	249	1751	213	1680	700	2192	658	2206	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.27	0.44	0.33	0.07	0.14	0.06	0.11	0.18

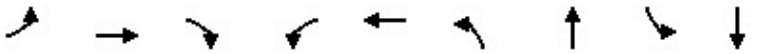
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	38	424	1	16	502	14
v/c Ratio	0.06	0.10	0.13	0.00	0.02	0.16	0.01
Control Delay (s/veh)	3.5	4.9	1.8	0.0	2.6	1.8	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.5	4.9	1.8	0.0	2.6	1.8	1.0
Queue Length 50th (ft)	0	0	0	0	0	0	0
Queue Length 95th (ft)	6	10	30	0	5	35	2
Internal Link Dist (ft)	538	263	602			609	
Turn Bay Length (ft)				200	100		120
Base Capacity (vph)	1200	1105	3266	1464	868	3266	1464
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.13	0.00	0.02	0.15	0.01

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	266	86	72	797	71	583	149	601
v/c Ratio	0.22	0.23	0.15	0.21	0.70	0.28	0.60	0.51	0.51
Control Delay (s/veh)	21.3	16.2	2.8	17.9	20.1	28.8	21.8	33.8	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.3	16.2	2.8	17.9	20.1	28.8	21.8	33.8	18.5
Queue Length 50th (ft)	8	37	0	19	121	23	95	49	93
Queue Length 95th (ft)	30	71	18	52	203	66	162	#139	167
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	193	1659	791	511	1625	321	1644	321	1680
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.16	0.11	0.14	0.49	0.22	0.35	0.46	0.36

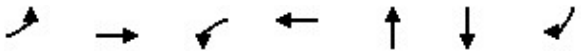
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	240	113	59	606	486	133	491
v/c Ratio	0.43	0.21	0.20	0.17	0.53	0.70	0.34	0.32
Control Delay (s/veh)	20.1	11.9	4.4	13.3	12.1	15.3	10.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	11.9	4.4	13.3	12.1	15.3	10.8	7.2
Queue Length 50th (ft)	16	18	0	9	43	72	17	28
Queue Length 95th (ft)	66	55	28	38	117	200	58	68
Internal Link Dist (ft)		927			2568	1157		610
Turn Bay Length (ft)	190		175	100			200	
Base Capacity (vph)	388	1948	908	618	1904	1233	698	2714
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.12	0.12	0.10	0.32	0.39	0.19	0.18

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	76	471	149	604	338	4	97
v/c Ratio	0.25	0.34	0.43	0.44	0.54	0.01	0.19
Control Delay (s/veh)	8.9	6.0	11.4	7.5	6.3	8.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.9	6.0	11.4	7.5	6.3	8.7	3.9
Queue Length 50th (ft)	6	15	12	25	6	1	0
Queue Length 95th (ft)	26	42	46	62	37	4	16
Internal Link Dist (ft)		2568		2572	532	287	
Turn Bay Length (ft)	200		200				
Base Capacity (vph)	523	2300	595	2334	1111	770	1070
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.20	0.25	0.26	0.30	0.01	0.09

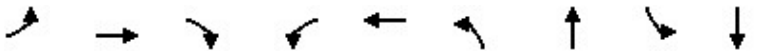
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	470	94	551	49	300	38	235	188
v/c Ratio	0.63	0.39	0.44	0.59	0.19	0.36	0.16	0.29	0.37
Control Delay (s/veh)	40.4	15.9	35.1	19.7	18.0	17.5	17.6	17.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.4	15.9	35.1	19.7	18.0	17.5	17.6	17.2	5.4
Queue Length 50th (ft)	41	52	24	65	11	37	9	29	0
Queue Length 95th (ft)	#182	125	#110	151	36	73	30	60	31
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	249	1751	213	1680	700	2192	658	2206	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.27	0.44	0.33	0.07	0.14	0.06	0.11	0.18

Intersection Summary

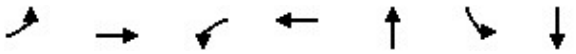
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	468	68	36	479	67	688	159	622
v/c Ratio	0.27	0.55	0.15	0.19	0.55	0.28	0.67	0.55	0.42
Control Delay (s/veh)	22.2	21.5	2.0	20.3	18.2	28.2	20.9	34.4	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	21.5	2.0	20.3	18.2	28.2	20.9	34.4	15.4
Queue Length 50th (ft)	14	73	0	10	61	20	97	48	83
Queue Length 95th (ft)	44	128	10	34	115	65	188	#159	171
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	347	1593	763	357	1563	308	1568	308	1643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.29	0.09	0.10	0.31	0.22	0.44	0.52	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	566	123	526	593	220	458
v/c Ratio	0.37	0.50	0.51	0.45	0.83	0.62	0.29
Control Delay (s/veh)	14.6	10.7	19.0	7.2	25.4	21.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.6	10.7	19.0	7.2	25.4	21.8	7.1
Queue Length 50th (ft)	16	44	22	26	98	33	24
Queue Length 95th (ft)	43	74	57	53	#315	#138	60
Internal Link Dist (ft)		927		2565	1170		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	388	1652	360	1665	744	368	1650
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.34	0.34	0.32	0.80	0.60	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	692	31	442	52	277	75	271	140
v/c Ratio	0.75	0.44	0.14	0.49	0.20	0.33	0.30	0.33	0.30
Control Delay (s/veh)	48.9	14.2	28.6	17.9	18.3	17.2	19.8	17.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.9	14.2	28.6	17.9	18.3	17.2	19.8	17.4	5.4
Queue Length 50th (ft)	48	46	7	48	11	32	17	32	0
Queue Length 95th (ft)	#201	172	36	105	34	62	46	62	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	253	1792	217	1706	690	2236	685	2247	1040
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.39	0.14	0.26	0.08	0.12	0.11	0.12	0.13

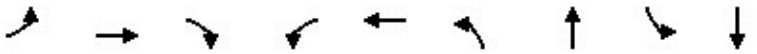
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	29	4	515	2	45	565	15
v/c Ratio	0.07	0.08	0.01	0.16	0.00	0.06	0.18	0.01
Control Delay (s/veh)	4.5	4.7	2.3	1.6	0.0	2.3	1.7	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.5	4.7	2.3	1.6	0.0	2.3	1.7	0.9
Queue Length 50th (ft)	0	0	0	0	0	0	0	0
Queue Length 95th (ft)	8	8	2	33	0	10	36	2
Internal Link Dist (ft)	499	317		617			581	
Turn Bay Length (ft)			125		200	100		120
Base Capacity (vph)	1174	1065	751	3239	1452	788	3239	1452
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.01	0.16	0.00	0.06	0.17	0.01

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	468	68	36	479	67	688	159	622
v/c Ratio	0.27	0.55	0.15	0.19	0.55	0.28	0.67	0.55	0.42
Control Delay (s/veh)	22.2	21.5	2.0	20.3	18.2	28.2	20.9	34.4	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	21.5	2.0	20.3	18.2	28.2	20.9	34.4	15.4
Queue Length 50th (ft)	14	73	0	10	61	20	97	48	83
Queue Length 95th (ft)	44	128	10	34	115	65	188	#159	171
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	347	1593	763	357	1563	308	1568	308	1643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.29	0.09	0.10	0.31	0.22	0.44	0.52	0.38

Intersection Summary

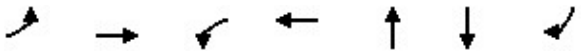
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	455	111	123	526	593	162	516
v/c Ratio	0.42	0.44	0.21	0.47	0.47	0.78	0.42	0.30
Control Delay (s/veh)	20.9	15.0	4.7	21.3	9.6	18.6	12.2	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.9	15.0	4.7	21.3	9.6	18.6	12.2	5.8
Queue Length 50th (ft)	20	49	0	26	32	105	23	26
Queue Length 95th (ft)	63	100	28	77	77	#295	77	64
Internal Link Dist (ft)		927			2565	1170		610
Turn Bay Length (ft)	190		175	200			200	
Base Capacity (vph)	390	1771	834	449	1758	1129	572	2492
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.26	0.13	0.27	0.30	0.53	0.28	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	107	738	18	553	147	14	75
v/c Ratio	0.30	0.49	0.06	0.37	0.34	0.05	0.17
Control Delay (s/veh)	8.0	6.9	5.5	6.1	7.2	10.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.0	6.9	5.5	6.1	7.2	10.0	4.6
Queue Length 50th (ft)	8	32	1	22	6	2	0
Queue Length 95th (ft)	23	51	6	38	24	8	12
Internal Link Dist (ft)		2565		2587	798	336	
Turn Bay Length (ft)	200		200				
Base Capacity (vph)	539	2290	450	2292	997	802	1042
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.32	0.04	0.24	0.15	0.02	0.07

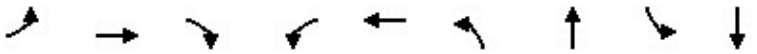
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	692	31	442	52	277	75	271	140
v/c Ratio	0.75	0.44	0.14	0.49	0.20	0.33	0.30	0.33	0.30
Control Delay (s/veh)	48.9	14.2	28.6	17.9	18.3	17.2	19.8	17.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.9	14.2	28.6	17.9	18.3	17.2	19.8	17.4	5.4
Queue Length 50th (ft)	48	46	7	48	11	32	17	32	0
Queue Length 95th (ft)	#201	172	36	105	34	62	46	62	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	253	1792	217	1706	690	2236	685	2247	1040
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.39	0.14	0.26	0.08	0.12	0.11	0.12	0.13

Intersection Summary

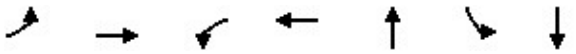
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	218	88	72	749	74	474	149	446
v/c Ratio	0.19	0.19	0.15	0.20	0.66	0.28	0.53	0.49	0.40
Control Delay (s/veh)	19.2	15.3	3.0	17.0	18.2	27.2	20.6	31.1	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.2	15.3	3.0	17.0	18.2	27.2	20.6	31.1	17.0
Queue Length 50th (ft)	7	27	0	18	101	23	72	46	62
Queue Length 95th (ft)	28	58	18	51	180	67	130	#135	121
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	238	1767	834	569	1725	342	1746	342	1755
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.11	0.13	0.43	0.22	0.27	0.44	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	309	34	563	360	112	368
v/c Ratio	0.36	0.27	0.10	0.47	0.60	0.27	0.28
Control Delay (s/veh)	13.4	6.3	9.0	7.7	13.3	9.6	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.4	6.3	9.0	7.7	13.3	9.6	6.4
Queue Length 50th (ft)	11	12	4	25	42	12	15
Queue Length 95th (ft)	44	36	18	64	128	44	45
Internal Link Dist (ft)		927		2568	1157		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	490	2044	628	2080	950	666	2073
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.15	0.05	0.27	0.38	0.17	0.18

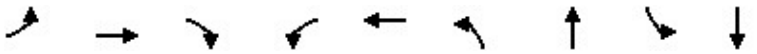
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	391	10	584	81	208	38	167	243
v/c Ratio	0.62	0.22	0.05	0.61	0.31	0.27	0.15	0.21	0.46
Control Delay (s/veh)	40.0	10.0	27.9	19.8	20.1	16.7	17.6	16.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.0	10.0	27.9	19.8	20.1	16.7	17.6	16.9	5.7
Queue Length 50th (ft)	40	22	3	68	19	24	9	20	0
Queue Length 95th (ft)	#182	103	19	162	53	52	29	44	35
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	251	1817	215	1696	754	2211	724	2225	1070
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.22	0.05	0.34	0.11	0.09	0.05	0.08	0.23

Intersection Summary

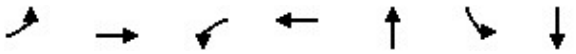
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	424	71	36	437	69	537	159	442
v/c Ratio	0.24	0.49	0.15	0.16	0.49	0.27	0.59	0.52	0.32
Control Delay (s/veh)	19.4	19.2	2.1	18.0	15.3	25.8	19.3	30.5	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	19.2	2.1	18.0	15.3	25.8	19.3	30.5	14.6
Queue Length 50th (ft)	12	58	0	9	46	18	66	42	52
Queue Length 95th (ft)	40	107	11	30	92	63	141	#146	119
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	430	1722	816	442	1684	334	1686	334	1712
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.25	0.09	0.08	0.26	0.21	0.32	0.48	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	507	92	482	387	153	336
v/c Ratio	0.33	0.44	0.33	0.40	0.63	0.37	0.25
Control Delay (s/veh)	12.8	9.0	12.8	6.1	13.8	10.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.8	9.0	12.8	6.1	13.8	10.9	6.0
Queue Length 50th (ft)	12	28	11	17	47	17	14
Queue Length 95th (ft)	43	67	42	48	135	59	39
Internal Link Dist (ft)		927		2565	1170		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	518	2034	506	2008	926	623	2021
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.25	0.18	0.24	0.42	0.25	0.17

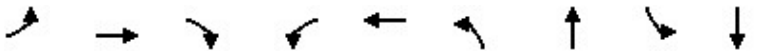
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	544	16	383	49	210	75	216	148
v/c Ratio	0.71	0.32	0.07	0.47	0.19	0.26	0.29	0.27	0.32
Control Delay (s/veh)	42.9	11.1	26.6	17.1	17.2	15.9	18.7	16.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.9	11.1	26.6	17.1	17.2	15.9	18.7	16.3	5.4
Queue Length 50th (ft)	45	33	4	38	10	23	16	24	0
Queue Length 95th (ft)	#201	133	23	89	32	48	45	50	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	268	1895	229	1796	769	2365	773	2374	1094
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.29	0.07	0.21	0.06	0.09	0.10	0.09	0.14

Intersection Summary

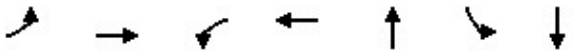
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	29	266	88	72	797	74	622	149	599
v/c Ratio	0.22	0.23	0.15	0.21	0.70	0.29	0.62	0.52	0.50
Control Delay (s/veh)	22.0	16.6	3.0	18.3	20.5	29.5	22.1	34.6	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.0	16.6	3.0	18.3	20.5	29.5	22.1	34.6	18.4
Queue Length 50th (ft)	8	37	0	19	123	25	103	51	94
Queue Length 95th (ft)	31	72	19	53	207	69	174	#141	166
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	187	1634	780	504	1602	317	1621	317	1661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.16	0.11	0.14	0.50	0.23	0.38	0.47	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	97	353	59	593	536	112	512
v/c Ratio	0.43	0.32	0.19	0.52	0.77	0.30	0.33
Control Delay (s/veh)	16.9	7.3	11.1	9.7	20.5	10.5	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.9	7.3	11.1	9.7	20.5	10.5	7.3
Queue Length 50th (ft)	17	20	9	41	80	13	27
Queue Length 95th (ft)	46	40	27	71	#276	50	69
Internal Link Dist (ft)		927		2568	1157		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	373	1747	507	1775	796	429	1767
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.20	0.12	0.33	0.67	0.26	0.29

Intersection Summary

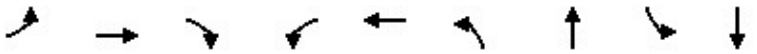
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	156	448	12	633	95	260	38	182	243
v/c Ratio	0.64	0.25	0.06	0.64	0.35	0.32	0.15	0.23	0.45
Control Delay (s/veh)	42.1	10.4	28.5	20.4	21.3	17.4	17.9	17.3	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.1	10.4	28.5	20.4	21.3	17.4	17.9	17.3	5.6
Queue Length 50th (ft)	44	27	3	78	25	33	9	24	0
Queue Length 95th (ft)	#182	118	21	177	61	63	29	48	35
Internal Link Dist (ft)		2572		648		504		648	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	242	1800	208	1640	718	2129	667	2149	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.25	0.06	0.39	0.13	0.12	0.06	0.08	0.23

Intersection Summary

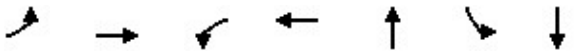
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	468	71	36	479	69	713	159	618
v/c Ratio	0.28	0.55	0.15	0.19	0.55	0.29	0.68	0.56	0.42
Control Delay (s/veh)	22.6	21.7	2.2	20.6	18.4	28.6	21.1	34.9	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.6	21.7	2.2	20.6	18.4	28.6	21.1	34.9	15.3
Queue Length 50th (ft)	14	74	0	10	62	21	102	49	82
Queue Length 95th (ft)	45	130	11	34	116	67	196	#159	170
Internal Link Dist (ft)		962			1076		1034		946
Turn Bay Length (ft)	210		120	220		210		170	
Base Capacity (vph)	342	1577	757	351	1549	306	1554	306	1632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.30	0.09	0.10	0.31	0.23	0.46	0.52	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	96	562	121	517	627	153	524
v/c Ratio	0.38	0.51	0.52	0.45	0.86	0.44	0.32
Control Delay (s/veh)	14.9	10.8	19.6	7.3	28.5	13.8	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.9	10.8	19.6	7.3	28.5	13.8	7.4
Queue Length 50th (ft)	16	43	21	26	107	20	30
Queue Length 95th (ft)	43	73	57	52	#342	75	71
Internal Link Dist (ft)		927		2565	1170		610
Turn Bay Length (ft)	190		100			200	
Base Capacity (vph)	385	1630	353	1643	726	350	1628
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.34	0.34	0.31	0.86	0.44	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	621	23	450	58	248	75	269	148
v/c Ratio	0.74	0.37	0.10	0.52	0.23	0.30	0.29	0.32	0.31
Control Delay (s/veh)	46.1	11.6	27.6	18.6	18.0	16.2	18.9	16.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.1	11.6	27.6	18.6	18.0	16.2	18.9	16.8	5.3
Queue Length 50th (ft)	48	40	5	49	13	28	17	32	0
Queue Length 95th (ft)	#201	152	29	107	37	55	46	61	22
Internal Link Dist (ft)		2587		626		494		2500	
Turn Bay Length (ft)	275		175		225		275		300
Base Capacity (vph)	258	1821	221	1734	703	2271	717	2286	1058
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.34	0.10	0.26	0.08	0.11	0.10	0.12	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix G: Signal Analysis Warrant Sheets

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Existing (2025)
Minor Street	Arabia St	Peak Hour	AM

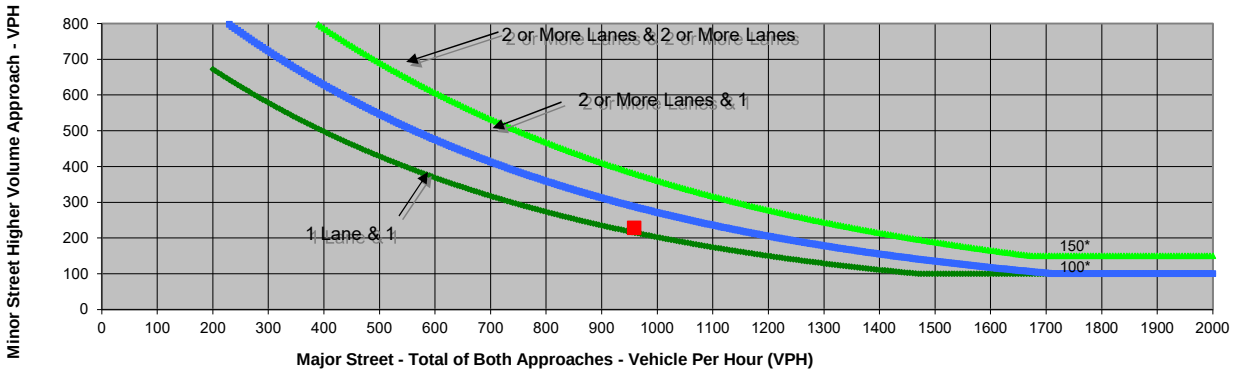
Turn Movement Volumes

	NB	SB	EB	WB
Left	31	2	54	248
Through	0	0	210	356
Right	198	70	62	28
Total	229	72	326	632

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**958**	**229**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Existing (2025)
Minor Street	Arabia St	Peak Hour	PM

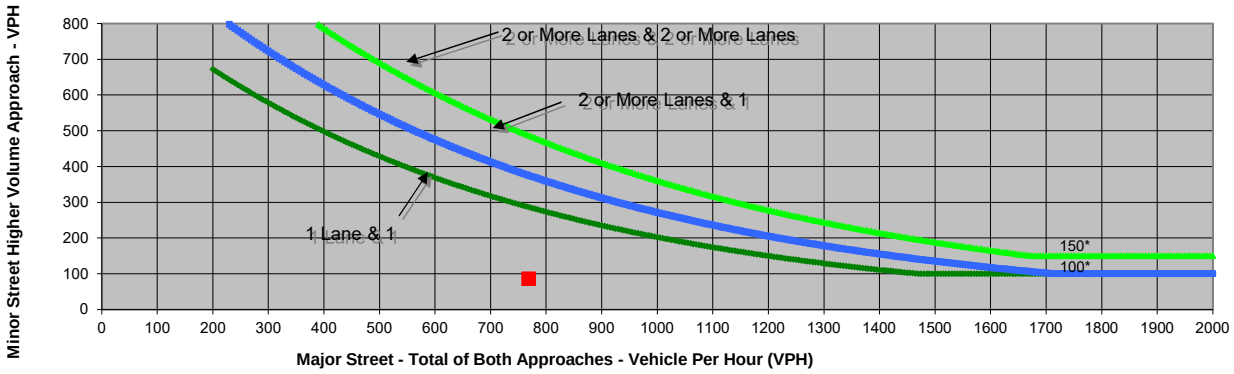
Turn Movement Volumes

	NB	SB	EB	WB
Left	24	9	70	29
Through	1	0	353	289
Right	62	49	11	16
Total	87	58	434	334

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**768**	**87**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Opening Year Plus Project (Alt 1)
Minor Street	Arabia St	Peak Hour	AM

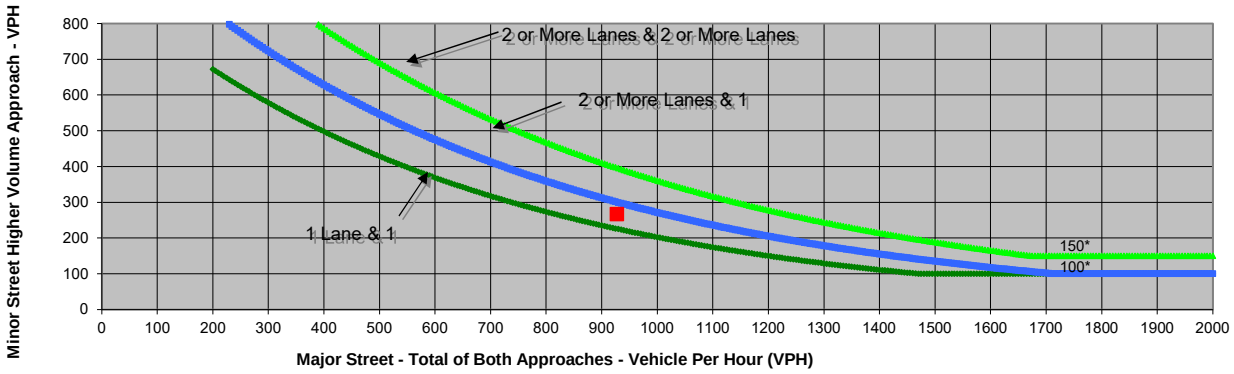
Turn Movement Volumes

	NB	SB	EB	WB
Left	48	3	60	118
Through	0	0	251	393
Right	219	77	74	31
Total	267	80	385	542

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**927**	**267**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Opening Year Plus Project (Alt 1)
Minor Street	Arabia St	Peak Hour	PM

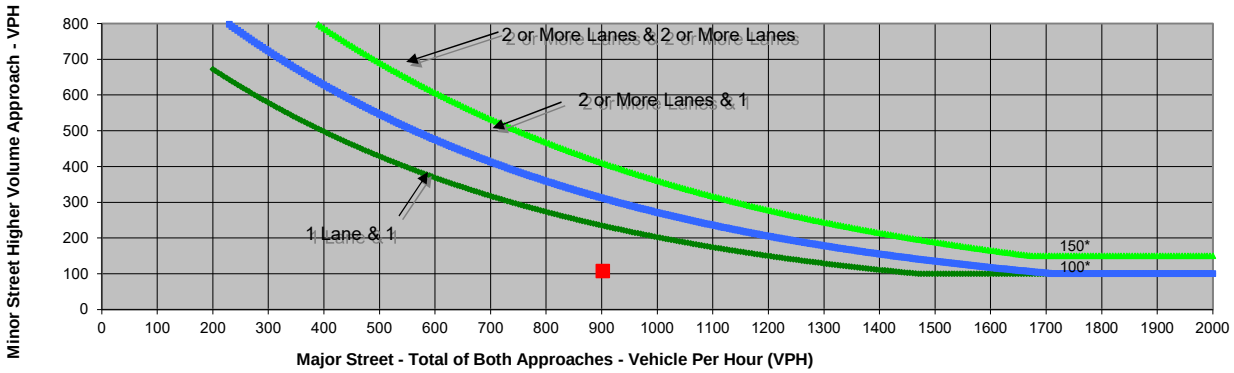
Turn Movement Volumes

	NB	SB	EB	WB
Left	36	10	77	13
Through	2	0	445	322
Right	70	54	27	18
Total	108	64	549	353

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**902**	**108**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Opening Year Plus Project & Cumulative Projects (Alt 1)
Minor Street	Arabia St	Peak Hour	AM

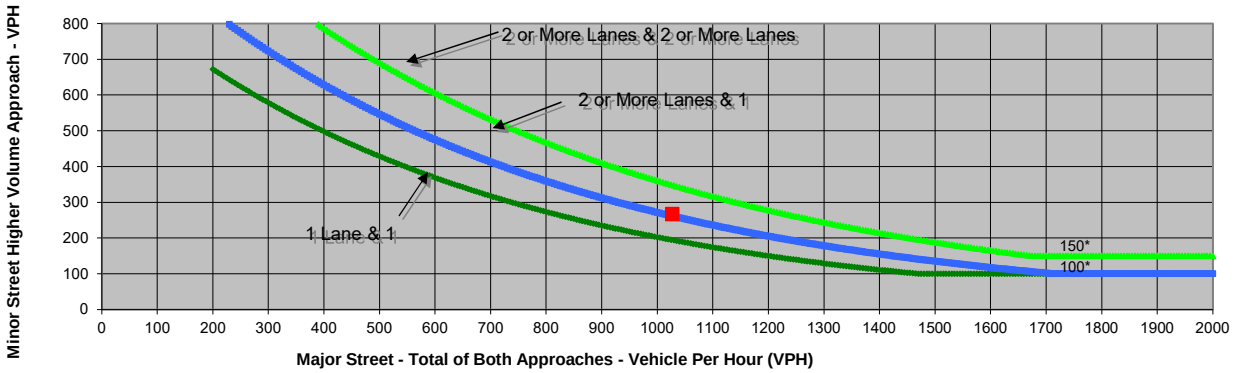
Turn Movement Volumes

	NB	SB	EB	WB
Left	48	3	60	118
Through	0	0	298	446
Right	219	77	74	31
Total	267	80	432	595

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**YES**
Traffic Volume (VPH) *	**1,027**	**267**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Fehr & Peers

Intersection	3	Project	Ranch at Madison
Major Street	52nd Avenue	Scenario	Opening Year Plus Project & Cumulative Projects (Alt 1)
Minor Street	Arabia St	Peak Hour	PM

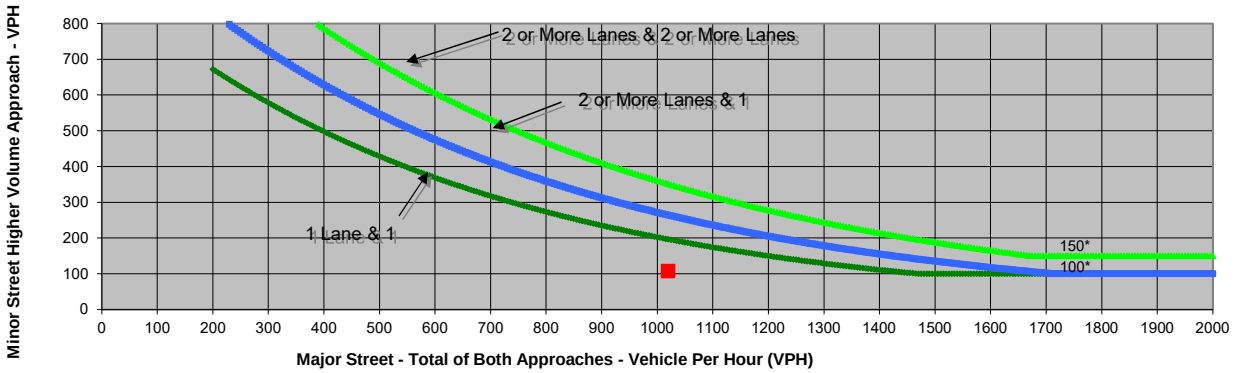
Turn Movement Volumes

	NB	SB	EB	WB
Left	36	10	77	13
Through	2	0	504	380
Right	70	54	27	18
Total	108	64	608	411

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



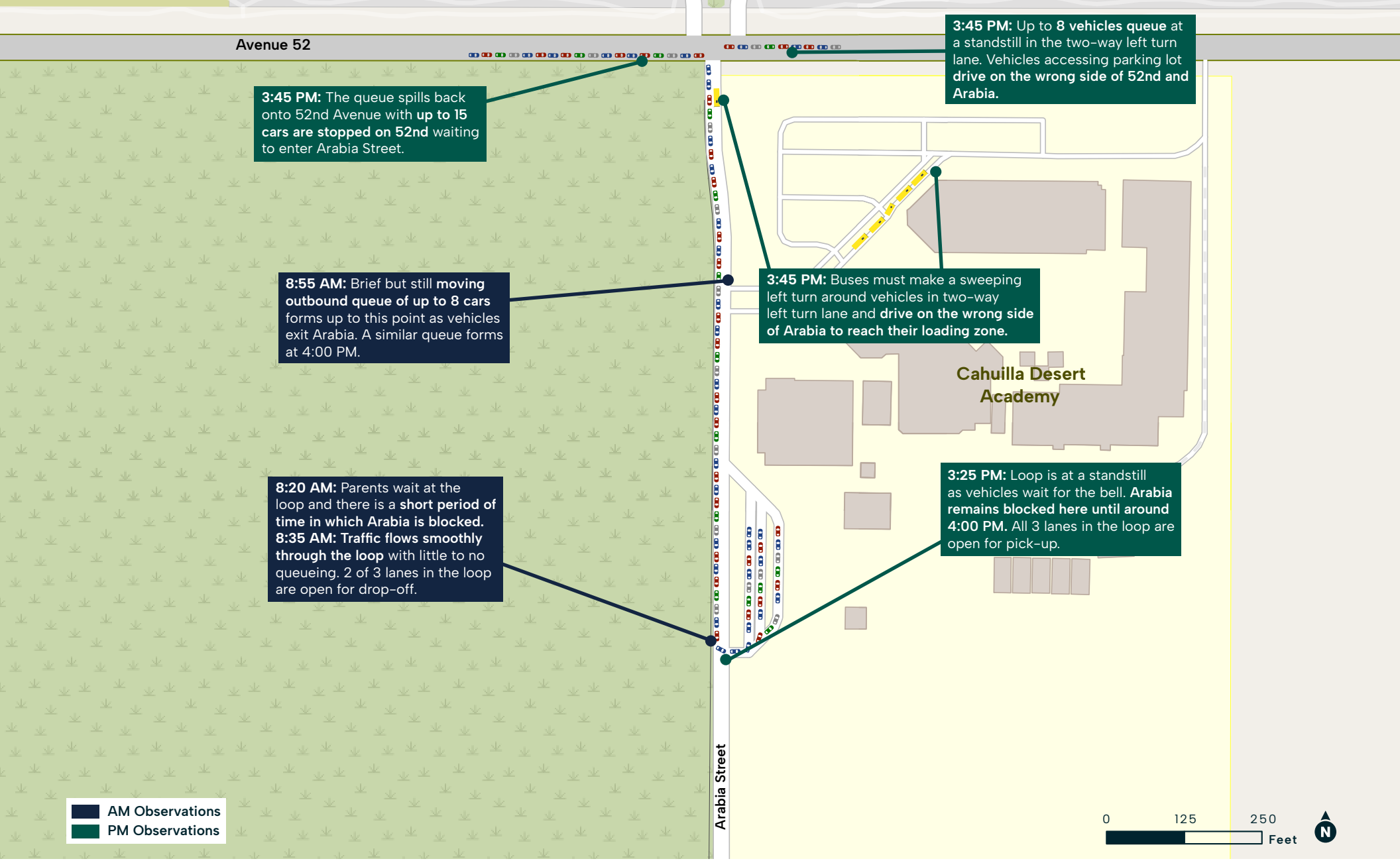
* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street 52nd Avenue	Minor Street Arabia St	Warrant Met
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**1,019**	**108**	

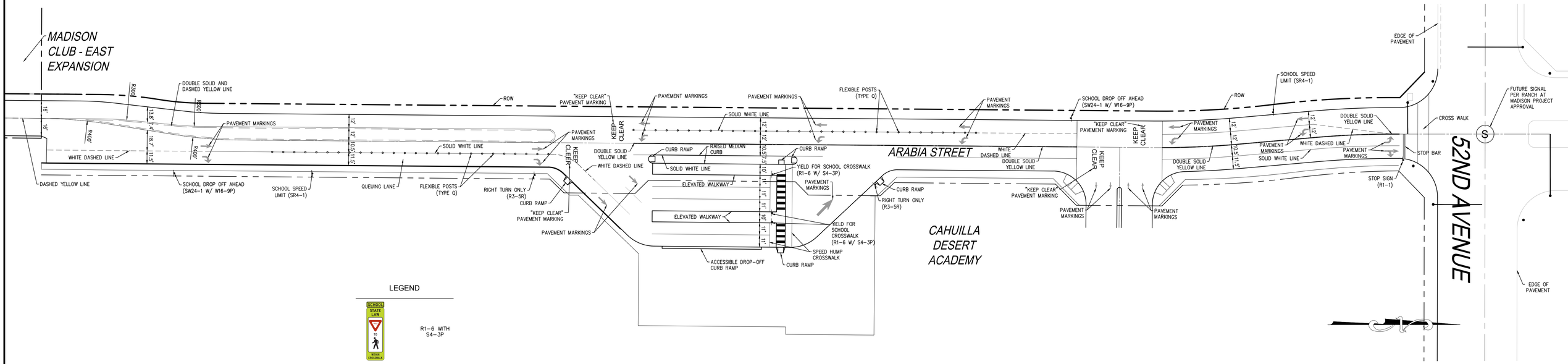
* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

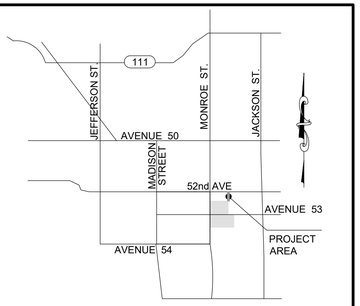
Appendix H: Arabia Street Existing Conditions and Improvement Concept Plans



Note: Vehicles portrayed are a representation of PM traffic observations.

Existing Conditions





VICINITY MAP
N.T.S.

LEGEND



SW24-1



W16-9P



SR4-1



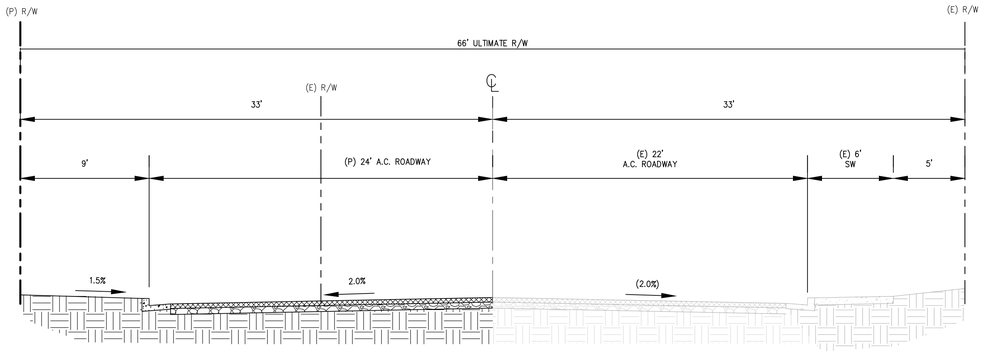
R3-5R



R1-1

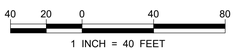


TYPE Q (CA)



ARABIA STREET SECTION

STATION: STA 18+50 TO 21+50
STA 12+50 TO 15+30
N.T.S.



GENERAL STRIPING NOTE:
ALL STRIPING AND TRAFFIC MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC AND APPLIED IN TWO COATS. A MINIMUM OF SEVEN (7) DAYS SHALL BE PROVIDED BETWEEN THE FIRST AND SECOND COATS.

PREPARED BY:
rtm engineering consultants
1 Ada
Suite 100
Irvine, CA. 92618
Phone: 949.453.0111

ARABIA STREET STRIPING & SIGNAGE EXHIBIT

MADISON CLUB - EAST EXPANSION
COUNTY OF RIVERSIDE
SHEET 1 OF 1

Appendix I: Planned and Programmed Roadway Improvements

CITY OF INDIO
CAPITAL IMPROVEMENT PROGRAM
FY2024/2025 AND BEYOND
PROJECT DETAILS

Project Title: Avenue 50 and Jackson Intersection Improvements

City Project #: TS1901

Department/Division: Public Works Department/Engineering Services Division

Federal Project #: N/A

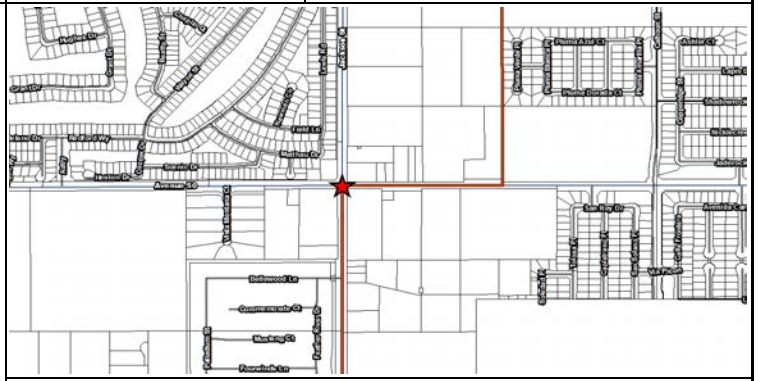
Project Status:
- ☐ Planning
- ☑ Design
- ☐ Right of Way
- ☑ Construction
- ☐ On Hold

Project Priority in CIP Category:
- ☑ Essential (Start within 1 yr)
- ☐ Necessary (Start within 1 to 3 yrs)
- ☐ Desirable (Start within 3 to 5 yrs)
- ☐ Deferrable (Start within 5 to 10 yrs)

Project Scope/Description and Limits:
Improve the intersection of Jackson Street and Avenue 50 to include two lanes in each direction along Jackson Street and along Avenue 50. The improvements include widening Jackson Street between Avenue 49 and Avenue 52 to the south approximately 1,000 feet into the County of Riverside jurisdiction. In addition, Avenue 50 will be widened west approximately 1,000 feet and east to the city boundary with the City of Coachella. Jackson Street and Avenue 50 will be widened to the ultimate condition with two lanes in each direction and a center median/left turn lane. The improvements will include the installation of a new traffic signal at Avenue 50, Avenue 51, and Avenue 52.

Project Justification:
In it's existing condition, this intersection is a major impedance to proper traffic flow and has been known to have long vehicle queues on each intersection segment during the peak hours. In addition, this intersection has severe drainage issues that must be addressed. In accordance with the Mobility Element of the General Plan, Jackson Street and Avenue 50 are identified as requiring two lanes of traffic in each direction.

Current Status:
Phase 1 Under Construction. ROW Acquisition underway for Phase II



CIP Category:
- ☑ Street Improvements
- ☐ Drainage
- ☑ Traffic Signals
- ☐ Fleet
- ☐ Bridges
- ☐ City Landscaping
- ☐ Electric Utility
- ☐ Indio Golf Course
- ☐ Buildings
- ☐ Parks
- ☐ Underground Utilities
- ☐ Lighting and Landscape District

Project Schedule:

Design Complete:	January 2022 to August 2024	Bid/Award:	January 2024 to February 2024
Right of Way Cleared:	June 2022 to December 2024	Construction:	March 2024 to June 2025

City of Indio Cost: $ 3,890,909.50

Local Match Amount (for Fed Funded Project only):

PROJECT BUDGET	TOTAL ESTIMATED COST	PRIOR YEARS EXPENDITURES	Carryover to FY2024/2025 EXPENPITURES	New Request FY2024/2025 EXPENDITURES	Carryover + New FY2024/2025 EXPENDITURES	FY2025/2026 EXPENDITURES	FY2026/2027 EXPENDITURES	FY2027/2028 EXPENDITURES	FY2028/2029 EXPENDITURES	Total EXPENDITURES
City Administration	$ 228,185.00	$ 136,000.00		$ 50,000.00	**$ 50,000.00**	**$ 42,185.00**				$ 228,185.00
Planning/Environmental	$ 328,889.00	$ 328,889.00			**$ -**					$ 328,889.00
Design & Engineering	$ 396,963.00	$ 396,963.00			**$ -**					$ 396,963.00
Right-of-Way Acquisition	$ 1,461,115.00	$ 139,512.00		$ 1,321,603.00	**$ 1,321,603.00**					$ 1,461,115.00
Construction	$ 19,222,226.00			$ 6,222,226.00	**$ 6,222,226.00**	**$ 13,000,000.00**				$ 19,222,226.00
Construction Engineering (Insp/Testing/Survey)	$ 3,000,000.00	$ 36,524.00		$ 1,000,000.00	**$ 1,000,000.00**	**$ 1,963,476.00**				$ 3,000,000.00
Contingency	$ 2,000,000.00			$ 650,000.00	**$ 650,000.00**	**$ 1,350,000.00**				$ 2,000,000.00
TOTAL COST	$ 26,637,378.00	$ 1,037,888.00	$ -	$ 9,243,829.00	**$ 9,243,829.00**	**$ 16,355,661.00**	**$ -**	**$ -**	**$ -**	$ 26,637,378.00

FUNDING SOURCE	UNFUNDED	PRIOR YEARS FUNDING	Carryover to FY2024/2025 BUDGET	New Request FY2024/2025 BUDGET	Carryover + New FY2024/2025 BUDGET	FY2025/2026 BUDGET	FY2026/2027 BUDGET	FY2027/2028 BUDGET	FY2028/2029 BUDGET	Total FUNDING
City Subtotal	$ -	$ 129,736.00	$ -	$ 1,307,824.35	**$ 1,307,824.35**	**$ 2,453,349.15**	**$ -**	**$ -**	**$ -**	$ 3,890,909.50
(210) Gas Tax					**$ -**					$ -
(212) Measure A					**$ -**	**$ 500,000.00**				$ 500,000.00
(234) SB1 RMRA					**$ -**					$ -
(300) CIP					**$ -**					$ -
(311) DIF - Storm Drain				$ 1,096,824.00	**$ 1,096,824.00**					$ 1,096,824.00
(312) DIF - Roads				$ 50,000.00	**$ 50,000.00**					$ 50,000.00
(313) DIF - Traffic Signal				$ 161,000.00	**$ 161,000.00**					$ 161,000.00
(330) Highway 111 Special Fund					**$ -**					$ -
(100) General Fund					**$ -**					$ -
(233) Federal HBRRP/HBP					**$ -**					$ -
CVAG Reimbursement (75%)		$ 778,416.00	$ -	$ 6,539,121.75	**$ 6,539,121.75**	**$ 12,266,745.75**				$ 19,584,283.50
Coachella Valley Mountains Conservancy				$ 525,000.00	**$ 525,000.00**					$ 525,000.00
County of Riverside		$ 129,736.00	$ -	$ 871,882.90	**$ 871,882.90**	**$ 1,635,566.10**				$ 2,637,185.00
TOTAL	$ -	$ 1,037,888.00	$ -	$ 9,243,829.00	**$ 9,243,829.00**	**$ 16,355,661.00**	**$ -**	**$ -**	**$ -**	$ 26,637,378.00

CITY OF INDIO
CAPITAL IMPROVEMENT PROGRAM
FY2024/2025 AND BEYOND
PROJECT DETAILS

Project Title: Avenue 50 Widening from Jefferson Street to Jackson Street

City Project #: ST2004

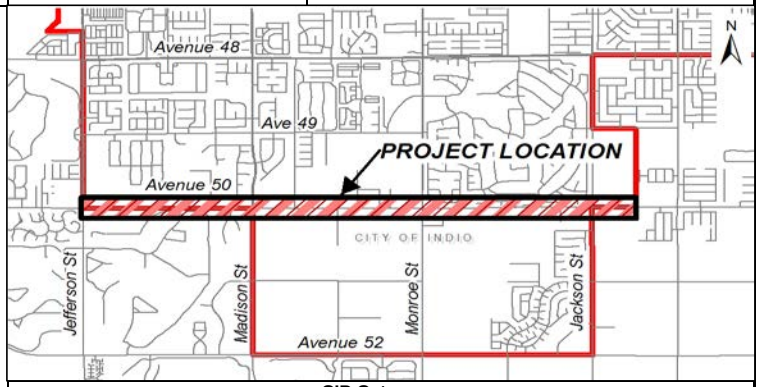
Federal Project #:

Department/Division: Public Works Department/Engineering Services Division

Project Status:
- ☑ Planning
- ☐ Design
- ☐ Right of Way
- ☐ Construction
- ☐ On Hold

Project Priority in CIP Category:
- ☑ Essential (Start within 1 yr)
- ☐ Necessary (Start within 1 to 3 yrs)
- ☐ Desirable (Start within 3 to 5 yrs)
- ☐ Deferrable (Start within 5 to 10 yrs)

Project Scope/Description and Limits:
Widen Avenue 50 to four lanes, two lanes in each direction, with a center median/left turn lane between Jefferson Street and the eastern City Limits east of Jackson Street, a 3.25 mile segment. The improvements will also include installing curb, gutter, bike facilities, sidewalks, and driveway approaches.



Project Justification:
Avenue 50 is currently a three lane road with two eastbound lanes, one westbound lane and a center median/left turn lane between Jefferson Street and Madison Street. As Avenue 50 approaches Madison Street, it tapers into a two lane road with one lane in each direction and a center median/left turn lane. Avenue 50 remains a two lane road between Madison Street and Monroe Street and tapers back into three lanes between Monroe Street and Jackson Street. East of Jackson Street, Avenue 50 is only a two lane road. In accordance with the Mobility Element of the City of Indio General Plan, Avenue 50 must be a four lane boulevard throughout the project limits in order to properly convey future traffic demands.
From CVAG - TPPS, Priority Ranking No.: 10 (Jefferson Street to Madison Street), 34 (Madison Street to Monroe Street), 34 (Monroe Street to Jackson Street)

Current Status:
Under Design

CIP Category:
- ☑ Street Improvements
- ☑ Drainage
- ☐ Traffic Signals
- ☐ Fleet
- ☐ Bridges
- ☐ City Landscaping
- ☐ Electric Utility
- ☐ Indio Golf Course
- ☐ Buildings
- ☐ Parks
- ☑ Underground Utilities
- ☐ Lighting and Landscape District

Project Schedule:

Design Complete:	August 2022 to June 2025	Bid/Award:	July 2025 to August 2025
Right of Way Cleared:	July 2024 to June 2025	Construction:	September 2025 to December 2027

City of Indio Cost: $ 6,321,875.00

Local Match Amount (for Fed Funded Project only):

PROJECT BUDGET	TOTAL ESTIMATED COST	PRIOR YEARS EXPENDITURES	Carryover to FY2024/2025 EXPENPITURES	New Request FY2024/2025 EXPENDITURES	Carryover + New FY2024/2025 EXPENDITURES	FY2025/2026 EXPENDITURES	FY2026/2027 EXPENDITURES	FY2027/2028 EXPENDITURES	FY2028/2029 EXPENDITURES	Total EXPENDITURES
City Administration	$ 150,000.00	$ 40,000.00	$ 12,000.00	$ 25,000.00	**$ 37,000.00**	**$ 40,000.00**	**$ 33,000.00**			$ 150,000.00
Planning/Environmental	$ 800,000.00	$ 663,802.00	$ 136,198.00		**$ 136,198.00**					$ 800,000.00
Design & Engineering	$ 2,400,000.00			$ 1,000,000.00	**$ 1,000,000.00**	**$ 1,400,000.00**				$ 2,400,000.00
Right-of-Way Acquisition	$ 3,500,000.00			$ 1,000,000.00	**$ 1,000,000.00**	**$ 2,500,000.00**				$ 3,500,000.00
Construction	$ 16,000,000.00			$ 5,000,000.00	**$ 5,000,000.00**	**$ 5,000,000.00**	**$ 6,000,000.00**			$ 16,000,000.00
Construction Engineering (Insp/Testing/Survey)	$ 2,400,000.00			$ 1,000,000.00	**$ 1,000,000.00**	**$ 1,000,000.00**	**$ 400,000.00**			$ 2,400,000.00
Contingency	$ 4,500,000.00				**$ -**	**$ 4,000,000.00**	**$ 500,000.00**			$ 4,500,000.00
TOTAL COST	$ 29,750,000.00	$ 703,802.00	$ 148,198.00	$ 8,025,000.00	**$ 8,173,198.00**	**$ 13,940,000.00**	**$ 6,933,000.00**	**$ -**	**$ -**	$ 29,750,000.00

FUNDING SOURCE	UNFUNDED	PRIOR YEARS FUNDING	Carryover to FY2024/2025 BUDGET	New Request FY2024/2025 BUDGET	Carryover + New FY2024/2025 BUDGET	FY2025/2026 BUDGET	FY2026/2027 BUDGET	FY2027/2028 BUDGET	FY2028/2029 BUDGET	Total FUNDING
City Subtotal	$ -	$ 149,557.93	$ 31,492.08	$ 1,705,312.50	**$ 1,736,804.58**	**$ 2,962,250.00**	**$ 1,473,262.50**	**$ -**	**$ -**	$ 6,321,875.00
(210) Gas Tax					**$ -**					$ -
(212) Measure A					**$ -**	**$ 500,000.00**				$ 500,000.00
(234) SB1 RMRA					**$ -**					$ -
(300) CIP					**$ -**					$ -
(311) DIF - Storm Drain				$ 1,000,000.00	**$ 1,000,000.00**					$ 1,000,000.00
(312) DIF - Roads				$ 736,806.00	**$ 736,806.00**					$ 736,806.00
(313) DIF - Traffic Signal					**$ -**					$ -
(330) Highway 111 Special Fund					**$ -**					$ -
(100) General Fund					**$ -**					$ -
(233) Federal HBRRP/HBP					**$ -**					$ -
CVAG Reimbursement (75%)		$ 527,851.50	$ 111,148.50	$ 6,018,750.00	**$ 6,129,898.50**	**$ 10,455,000.00**	**$ 5,199,750.00**	**$ -**	**$ -**	$ 22,312,500.00
Prop 1B Bridge Seismic					**$ -**					$ -
Other Government Agency		$ 26,392.58	$ 5,557.43	$ 300,937.50	**$ 306,494.93**	**$ 522,750.00**	**$ 259,987.50**	**$ -**	**$ -**	$ 1,115,625.00
TOTAL	$ -	$ 703,802.00	$ 148,198.00	$ 8,025,000.00	**$ 8,173,198.00**	**$ 13,940,000.00**	**$ 6,933,000.00**	**$ -**	**$ -**	$ 29,750,000.00

CITY OF INDIO
CAPITAL IMPROVEMENT PROGRAM
FY2023/2024 AND BEYOND
PROJECT DETAILS

Project Title: Monroe Street and Avenue 52 Traffic Signal

City Project #: TS2401

Federal Project #:

Department/Division: Public Works Department/Engineering Services Division

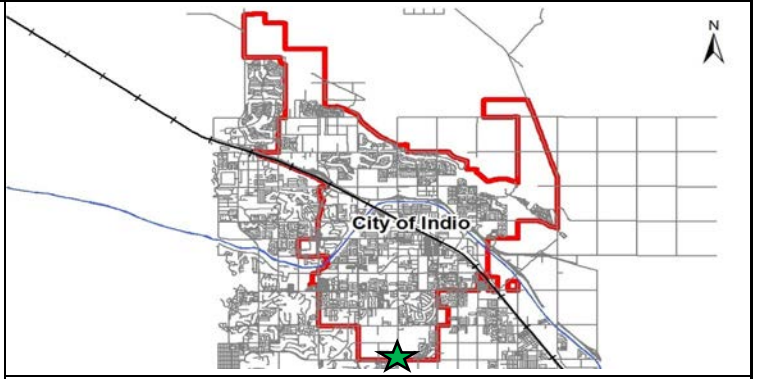
Project Status:
- ☐ Planning
- ☐ Design
- ☐ Right of Way
- ☑ Construction
- ☐ On Hold

Project Priority in CIP Category:
- ☑ Essential (Start within 1 yr)
- ☐ Necessary (Start within 1 to 3 yrs)
- ☐ Desirable (Start within 3 to 5 yrs)
- ☐ Deferrable (Start within 5 to 10 yrs)

Project Scope/Description and Limits:
Install a new Traffic Signal at the intersection of Monroe Street and Avenue 52

Project Justification:
This 4-way stop is near hitting warrants and is heavily impacted during the festivals. Heavy traffic volumes and high speeds have led to unsafe driving conditions at the intersection of Avenue 52 and Monroe Street. A traffic signal at this location will serve to calm traffic. The County and La Quinta would be requested to share in 50% of the cost (an additional $400k).

Current Status



CIP Category:
- ☐ Street Improvements
- ☐ Drainage
- ☑ Traffic Signals
- ☐ Fleet
- ☐ Bridges
- ☐ City Landscaping
- ☐ Electric Utility
- ☐ Indio Golf Course
- ☐ Buildings
- ☐ Parks
- ☐ Underground Utilities
- ☐ Lighting and Landscape District

Project Schedule:

Design Complete:	TBD	Bid/Award:	TBD
Right of Way Cleared:	TBD	Construction:	TBD

City of Indio Cost:	Local Match Amount (for Fed Funded Project only):
$ 400,000.00	

PROJECT BUDGET	TOTAL ESTIMATED COST	PRIOR YEARS EXPENDITURES	Carryover to FY2023/2024 EXPENPITURES	New Request FY2023/2024 EXPENDITURES	Carryover + New FY2023/2024 EXPENDITURES	FY2024/2025 EXPENDITURES	FY2025/2026 EXPENDITURES	FY2026/2027 EXPENDITURES	FY2027/2028 EXPENDITURES	Total EXPENDITURES
City Administration					$ -					$ -
Planning/Environmental					$ -					$ -
Design & Engineering					$ -					$ -
Right-of-Way Acquisition					$ -					$ -
Construction	$ 400,000.00			$ 400,000.00	**$ 400,000.00**					$ 400,000.00
Construction Engineering (Insp/Testing/Survey)					$ -					$ -
Contingency					$ -					$ -
TOTAL COST	$ 400,000.00	$ -	$ -	$ 400,000.00	**$ 400,000.00**	$ -	$ -	$ -	$ -	$ 400,000.00

FUNDING SOURCE	UNFUNDED	PRIOR YEARS FUNDING	Carryover to FY2023/2024 BUDGET	New Request FY2023/2024 BUDGET	Carryover + New FY2023/2024 BUDGET	FY2024/2025 BUDGET	FY2025/2026 BUDGET	FY2026/2027 BUDGET	FY2027/2028 BUDGET	Total FUNDING
City Subtotal	$ -	$ -	$ -	$ 400,000.00	**$ 400,000.00**	$ -	$ -	$ -	$ -	$ 400,000.00
(210) Gas Tax					$ -					$ -
(212) Measure A					$ -					$ -
(234) SB1 RMRA					$ -					$ -
(300) CIP					$ -					$ -
(311) DIF - Storm Drain					$ -					$ -
(312) DIF - Roads					$ -					$ -
(313) DIF - Traffic Signal					$ -					$ -
(330) Highway 111 Special Fund					$ -					$ -
(100) General Fund				$ 400,000.00	**$ 400,000.00**					$ 400,000.00
(233) Federal HBRRP/HBP					$ -					$ -
CVAG Reimbursement (75%)					$ -					$ -
Prop 1B Bridge Seismic					$ -					$ -
Other					$ -					$ -
TOTAL	$ -	$ -	$ -	$ 400,000.00	**$ 400,000.00**	$ -	$ -	$ -	$ -	$ 400,000.00

Matthew Brown

From: Donn Uyeno <duyeno@indioca.gov>
Sent: Wednesday, June 24, 2026 4:13 PM
To: Matthew Brown; Paul Herrmann
Cc: Timothy T. Wassil; Juan Raya
Subject: RE: City of Indio Project Completion Status Request

You don't often get email from duyeno@indioca.gov. Learn why this is important

[EXTERNAL EMAIL]

Hello Matthew,

Please see my responses in red below.

INDIO
take center stage

Donn Uyeno
Principal Civil Engineer
duyeno@indioca.gov
P:760-391-4028
100 Civic Center Drive · Indio, CA 92201

From: Matthew Brown <M.Brown@fehrandpeers.com>
Sent: Wednesday, June 24, 2026 12:25 PM
To: Timothy T. Wassil <twassil@indioca.gov>
Cc: Paul Herrmann <P.Herrmann@fehrandpeers.com>
Subject: City of Indio Project Completion Status Request

This Message Is From an Untrusted Sender
You have not previously corresponded with this sender.
If you have questions regarding this warning, please contact helpdesk@indio.org
Report Suspicious

Hi Timothy,

This is Matthew Brown with Fehr and Peers. I was wondering if you could tell me the project status of 3 projects from your City's CIP. We are conducting a traffic study nearby in the County that considers study locations within Indio, and are currently assuming that the projects below will be completed by 2030 as they have funding and project schedules that would suggest that they would be completed before this date. We are double checking this at the request of the County and request a confirmation that these projects are expected to be completed before our opening year date of 2030. The CIP projects in question are listed as follows (and pages from the CIP attached).

Avenue 50 and Jackson Intersection Improvements - TS1901 - CIP completion date 2025.
Due to delays with right-of-way and utility relocation, the project has been divided into phases.

- **Phase 1** which focused on work within the current right-of-way. Construction began in August 2024 and was completed in August 2025. **Complete.**
- **Phase 2** is currently in the Right-of-Way phase, with both the City and County in active negotiations with the property owners in their jurisdictions. PS&E is at 99% and will include concrete work (curbs/gutters/sidewalks), final drainage, installation of 3 new traffic signals at Avenues 50, 51 & 52, and utility undergrounding. The project will be ready to list in late fall of 2026, with construction anticipated to be completed in spring of 2028. **Will be completed prior to 2030.**

The final project will widen Jackson Street from Avenue 49 to Avenue 52 and Avenue 50 from Vista Montana Court to the city's eastern limits. It will include new traffic signals at key intersections, underground drainage improvements and other utilities along Avenue 50.

Avenue 50 Widening from Jefferson Street to Jackson Street - ST2004 - CIP completion date 2027.
This project is currently broken down into 2 segments.

- **Segment 1, Avenue 50 – between Jefferson St and Madison St.** This is a joint project with the City of La Quinta. PS&E is at 100% design. Still working with a couple of new developments on the north side of street, with regard to driveway locations. Obtaining temporary construction easements (TCE)s, and permanent easements for utility companies. Project will be ready to list by the end of 2026. Anticipating construction for May 2027, right after Coachella & Stagecoach festivals in April. **Will be complete prior to 2030.**
- **Segment 2, Avenue 50 – between Madison St and Botella Place.** (just west of Jackson, where TS1901 project above stops).
  This segment is entirely within the City of Indio. Currently the project is coordinating with the utilities and property owners on the design. We are at 65% design plans. Even with the PS&E likely to be completed Spring of 2027, the construction will likely not start until 2028 and completed in mid-2030. **Will not be complete prior to 2030.**

Monroe Street and Avenue 52 Traffic Signal – TS2401 - CIP completion date TBD (But in construction during the time of CIP)
This project is a joint project with the City of La Quinta and the County of Riverside. The 3 agency's have executed reimbursement agreements. Project is starting design and City of La Quinta is the lead agency on this project. It is anticipated that the agencies will complete the design and reviews in about 1 year, and construction to follow. **Will be completed prior to 2030.**

If you require any further clarification or assistance on identifying these projects please let me know.

Matthew Brown(He/Him)

Engineer/Planner
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Appendix J: Calhoun Ranch Cumulative Scenario Assessment

Fehr & Peers

Memo

Date: May 29, 2026

To: Tony Locacciato – Trinity Consultants

From: Paul Hermann, P.E., Trevor Lien, Matthew Brown – Fehr & Peers

Subject: The Ranch at Madison Transportation Analysis Report Addendum – Calhoun Ranch Cumulative Scenario Assessment

Introduction

This memorandum serves as an addendum to the Ranch at Madison Transportation Analysis Report (April 2026) prepared by Fehr & Peers. Following completion of the report, the Calhoun Ranch Specific Plan was identified as an additional cumulative project warranting supplemental analysis. The Calhoun Ranch project is a mixed-use development with four alternatives located immediately east of the Ranch at Madison project site, bounded by 52nd Avenue to the north and Jackson Street to the east. Because Calhoun Ranch was not included in the approved cumulative projects list at the time of the original scoping agreement, this addendum supplements the Opening Year (2030) Plus Project and Cumulative Projects scenario for Alternative 1 (the Proposed Project) to evaluate the potential effect of Calhoun Ranch traffic on the shared study area intersections. All methodology, assumptions, and LOS standards are consistent with those described in the Transportation Analysis Report.

The Riverside County Transportation Analysis Guidelines (December 2020) identify the following analysis scenarios to be included in a Transportation Analysis study: (1) Existing Conditions; (2) Project Completion; and (3) Cumulative. Consistent with the guidance in Sections 15125, Environmental Setting, and 15130, Cumulative Impacts of the CEQA Guidelines, the County Transportation Analysis Guidelines define the Cumulative scenario as follows:

- **Cumulative** (Existing plus Ambient Growth plus Project plus Cumulative Projects). Traffic generated by other approved projects in the study area shall be identified and added to the Project Completion traffic identified in Scenario 2. This may also include projects that are proposed and in the review process, but not yet approved.

This scenario considers other approved projects, consistent with the guidance in Section 15125 (a)(1) of the CEQA Guidelines, which states that an EIR should describe physical environmental conditions as they exist at the time the notice of preparation for an EIR is published. The notice of preparation for the Ranch at Madison Specific Plan EIR was published in August 2025. A list of approved projects identified by the County in August 2025 is provided in **Appendix D** of the main report.

The County's Guidelines also state that the cumulative scenario may include projects that are proposed and in the review process, but not yet approved, consistent with the guidance in Section

15130 (b)(1) of the CEQA Guidelines which states that analysis of cumulative effects should consider either a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, or a list of past, present and probable future projects. The list of approved projects are "past" projects, and proposed projects in the County's review process, but not yet approved, represent "present" projects.

In April 2026, the owner of approximately 215 acres of property located east of the Project Site provided information to the County related to preliminary conceptual planning for a development project on this property. A general description of several alternative mixes of land uses being under consideration was provided. A formal application for this project has not been submitted to the County and, for this reason, this potential future project is not in the County's review process at this time. While the County's Transportation Analysis Guidelines do not require that projects not submitted and in the County review process be considered in the cumulative scenario, the County is considering this as a "probable future" project in the local transportation analysis. A description of the uses assumed on this property for purposes of analysis is also provided in **Appendix D**.

Project Description and Trip Generation

The information provided to Riverside County by the owners of the Calhoun Ranch properties, located east of the Ranch at Madison Specific Plan Project Site, included four (4) alternative mixes of a wide variety of land uses including a combination of residential neighborhoods, retail commercial uses, lodging and sports and entertainment-oriented uses. Three of these alternatives included residential communities of different densities and the fourth alternative included sports and entertainment facilities along with residential and commercial uses. After reviewing each alternative, the alternative with the greatest number of residential units was chosen for consideration in the cumulative scenario as it represents the typical weekday average highest daily traffic generator of the four alternatives, and evaluation of this alternative results in a conservative assessment of the potential cumulative traffic contribution from the Calhoun Ranch project This alternative included 1,215 residential units and 125,000 square feet of commercial uses.

Trip generation for the Calhoun Ranch project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 12th Edition* and the MXD mixed-use methodology, consistent with the approach applied to the Ranch at Madison project in the Transportation Analysis Report. The Calhoun Ranch project Alternative 1 proposes 1,215 single-family detached dwelling units (ITE Land Use Code 210) and approximately 125,000 square feet of shopping center (ITE Land Use Code 820). Internal capture reductions reflective of the mixed-use relationship between the residential and commercial uses were applied to the gross trip generation estimates to derive net new project trips. Pass-by credits were also applied to the commercial uses.

Table J-1 summarizes the resulting net new trip generation for the Calhoun Ranch project.

Table J-1. Calhoun Ranch Net New Trip Generation (Alternative 1)

Land Use	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing	210	1,215 d.u.	11,044	230	620	850	701	429	1,130
Shopping Center	820	125 k s.f.	4,549	68	42	110	200	208	408
Gross Project Trips			15,593	298	662	960	901	637	1,538
Total Internal Capture and Pass-by Reductions			(1,635)	(40)	(88)	(128)	(104)	(74)	(178)
Net New Project Trips			**13,958**	**258**	**574**	**832**	**797**	**563**	**1,360**

Sources: Fehr & Peers, 2026. ITE Trip Generation Manual, 12th Edition; MXD Mixed-Use Methodology.

Trip Distribution, Assignment, and Intersection Operations

Calhoun Ranch trip distribution and assignment were developed consistent with the methodology and regional directional splits applied in the Ranch at Madison Transportation Analysis Report. Regional distribution was assumed as follows: 55% northbound to Monroe Street and Interstate 10, 15% westbound to Avenue 50, 15% westbound to 52nd Avenue, 10% eastbound to 52nd Avenue, and 5% southbound to Jackson Street. Though there was no site plan to reference, site access for Calhoun Ranch was assumed via four driveways, two on Jackson Street south of 52nd Avenue, one on 52nd Avenue east of Jackson Street, and one and one between Intersection 3 and Intersection 7 along Arabia Street within the Ranch at Madison Study Area, with driveway volume splits of 50%, 40%, and 10% respectively. These driveways were estimated to route a majority of the traffic through the study intersections for a conservative estimate. Project trips were then assigned to the study area intersections using these distribution percentages and driveway access assumptions.

Intersection operations were evaluated using the HCM 7th Edition methodology in Synchro 12, consistent with the original report. **Table J-2** compares intersection levels of service for four conditions: the original Opening Year (2030) Plus Project and Cumulative Projects Alternative 1 results without and with improvements, and the supplemental results with Calhoun Ranch trips added, again without and with improvements. The same improvement identified in the original report, installation of a traffic signal at Intersection 3 (52nd Avenue and Arabia Street) was evaluated with Calhoun Ranch volumes.

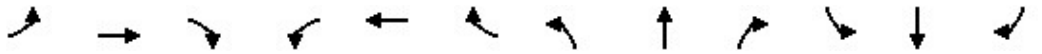
Table J-2. Opening Year (2030) Plus Project and Cumulative Projects — Levels of Service Comparison

ID	Intersection	Control	No Calhoun Ranch No Improvement		No Calhoun Ranch With Improvement		With Calhoun Ranch No Improvement		With Calhoun Ranch With Improvement	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Monroe St and 50th Ave	Signal	B (17.2)	B (16.3)	B (17.2)	B (16.3)	B (17.8)	B (18.2)	B (17.8)	B (18.2)
2	Monroe St and 52nd Ave	Signal	A (8.9)	B (10.9)	A (8.9)	B (10.9)	A (9.4)	B (10.7)	A (9.0)	B (10.1)
3	Arabia St and 52nd Ave	TWSC/ Signal	**F (78.2)**	**F (50.2)**	A (8.0)	A (6.0)	**F (>120)**	**F (>120)**	A (9.3)	A (6.7)
4	Jackson St and 52nd Ave	Signal	B (16.4)	B (16.4)	B (16.4)	B (16.4)	C (26.1)	C (32.5)	C (26.1)	C (32.5)
5	Monroe St and Via La Serena/Dwy A	Signal/ TWSC	A (4.0)	A (3.9)	A (4.0)	A (3.9)	A (4.0)	A (3.8)	A (4.0)	A (3.8)
6	Monroe St and 53rd Ave	TWSC	B (10.4)	B (10.3)	B (10.4)	B (10.3)	B (10.4)	B (10.3)	B (10.4)	B (10.3)
7	Dwy G and Ave 53	TWSC	A (9.3)	A (8.7)	A (9.3)	A (8.7)	A (9.3)	A (8.7)	A (9.3)	A (8.7)

Source: Fehr & Peers, 2026.

Conclusion

The addition of Calhoun Ranch Alternative 1 trips to the Opening Year (2030) Plus Project and Cumulative Projects scenario results in measurable increases in delay at the Ranch at Madison study area intersections, most notably at Intersection 3 (52nd Avenue and Arabia Street). At Intersection 3, Calhoun Ranch trips increase delay under the no-improvement condition to an oversaturated condition (when delays in Synchro are so large there is an error, greater than 120 seconds is reported); however, the traffic signal identified in the original Transportation Analysis Report continues to resolve the deficiency, with the intersection operating at LOS A in both peak hours with the improvement in place. All other study intersections continue to operate at LOS C or better in both peak hours with and without Calhoun Ranch trips. The improvements previously identified in the Ranch at Madison Transportation Analysis Report remain adequate to accommodate the combined traffic volumes of the Ranch at Madison project, the original cumulative projects, and the Calhoun Ranch Specific Plan. No additional improvements beyond those already recommended are required as a result of this supplemental analysis.



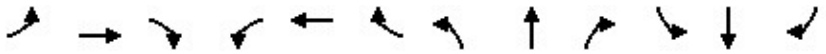
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	280	83	66	614	196	74	493	43	137	503	50
Future Volume (veh/h)	27	280	83	66	614	196	74	493	43	137	503	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	304	31	72	667	163	80	536	38	149	547	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	1164	510	417	924	226	142	809	57	192	894	72
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.24	0.24	0.11	0.27	0.27
Sat Flow, veh/h	660	3554	1557	1043	2820	688	1781	3361	238	1781	3326	267
Grp Volume(v), veh/h	29	304	31	72	420	410	80	283	291	149	292	299
Grp Sat Flow(s),veh/h/ln	660	1777	1557	1043	1777	1732	1781	1777	1822	1781	1777	1816
Q Serve(g_s), s	2.1	3.2	0.7	2.8	10.6	10.6	2.2	7.3	7.4	4.1	7.3	7.4
Cycle Q Clear(g_c), s	12.7	3.2	0.7	6.0	10.6	10.6	2.2	7.3	7.4	4.1	7.3	7.4
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.13	1.00		0.15
Lane Grp Cap(c), veh/h	220	1164	510	417	582	567	142	428	439	192	478	488
V/C Ratio(X)	0.13	0.26	0.06	0.17	0.72	0.72	0.56	0.66	0.66	0.78	0.61	0.61
Avail Cap(c_a), veh/h	321	1709	749	577	854	833	332	854	876	332	854	873
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	20.7	12.6	11.8	14.8	15.1	15.1	22.6	17.5	17.5	22.1	16.3	16.3
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.2	1.5	1.5	3.5	1.8	1.7	6.6	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	0.2	0.5	3.4	3.3	0.9	2.5	2.6	1.8	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.9	12.7	11.8	15.0	16.6	16.6	26.0	19.2	19.2	28.7	17.6	17.6
LnGrp LOS	C	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		364			902			654			740	
Approach Delay, s/veh		13.3			16.4			20.0			19.8	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	17.8		22.2	9.6	19.2		22.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.1	9.4		14.7	4.2	9.4		12.6				
Green Ext Time (p_c), s	0.1	2.6		1.2	0.1	2.7		3.5				

Intersection Summary												
HCM 7th Control Delay, s/veh			17.8									
HCM 7th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	272	110	57	512	171	79	351	42	133	401	76
Future Volume (veh/h)	94	272	110	57	512	171	79	351	42	133	401	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	280	113	59	528	176	81	362	43	137	413	78
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	367	939	369	498	988	328	184	487	54	529	1091	204
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	742	2478	974	989	2608	865	177	1328	146	979	2978	557
Grp Volume(v), veh/h	97	199	194	59	359	345	486	0	0	137	245	246
Grp Sat Flow(s),veh/h/ln	742	1777	1675	989	1777	1697	1652	0	0	979	1777	1758
Q Serve(g_s), s	4.1	2.8	2.9	1.6	5.6	5.6	4.9	0.0	0.0	0.0	3.6	3.6
Cycle Q Clear(g_c), s	9.7	2.8	2.9	4.5	5.6	5.6	9.0	0.0	0.0	4.3	3.6	3.6
Prop In Lane	1.00		0.58	1.00		0.51	0.17		0.09	1.00		0.32
Lane Grp Cap(c), veh/h	367	673	635	498	673	643	724	0	0	529	651	644
V/C Ratio(X)	0.26	0.29	0.31	0.12	0.53	0.54	0.67	0.00	0.00	0.26	0.38	0.38
Avail Cap(c_a), veh/h	464	905	853	627	905	864	948	0	0	669	905	896
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	1.00	1.00
Uniform Delay (d), s/veh	12.4	7.7	7.7	9.3	8.5	8.6	9.8	0.0	0.0	8.5	8.2	8.2
Incr Delay (d2), s/veh	0.4	0.2	0.3	0.1	0.7	0.7	1.2	0.0	0.0	0.3	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.5	0.2	1.1	1.0	1.8	0.0	0.0	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.7	7.9	8.0	9.4	9.2	9.3	11.0	0.0	0.0	8.7	8.6	8.6
LnGrp LOS	B	A	A	A	A	A	B			A	A	A
Approach Vol, veh/h		490			763			486			628	
Approach Delay, s/veh		8.9			9.2			11.0			8.6	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	17.5	17.9	17.5	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	11.0	11.7	6.3	7.6
Green Ext Time (p_c), s	1.7	1.4	2.5	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	9.4
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	66.1

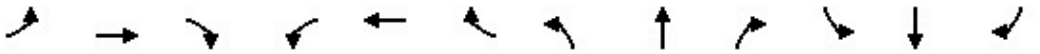
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	333	82	135	547	31	65	0	256	3	0	77
Future Vol, veh/h	60	333	82	135	547	31	65	0	256	3	0	77
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	422	104	171	692	39	82	0	324	4	0	97

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	737	0	0	530	0	0	1323	1709	273	1426	-	376
Stage 1	-	-	-	-	-	-	630	630	-	1059	-	-
Stage 2	-	-	-	-	-	-	693	1078	-	368	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	865	-	-	1033	-	-	114	90	725	96	0	622
Stage 1	-	-	-	-	-	-	436	473	-	240	0	-
Stage 2	-	-	-	-	-	-	400	293	-	624	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	861	-	-	1028	-	-	~ 72	68	718	40	-	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 72	68	-	40	-	-
Stage 1	-	-	-	-	-	-	396	429	-	199	-	-
Stage 2	-	-	-	-	-	-	279	243	-	311	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.21	1.74	$ 317.94	15.45
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	256	861	-	-	1028	-	-	40	616
HCM Lane V/C Ratio	1.589	0.088	-	-	0.166	-	-	0.096	0.158
HCM Ctrl Dly (s/v)	$ 317.9	9.6	-	-	9.2	-	-	105.6	11.9
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	24.9	0.3	-	-	0.6	-	-	0.3	0.6

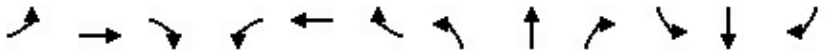
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	363	72	103	436	190	84	441	46	89	287	172
Future Volume (veh/h)	163	363	72	103	436	190	84	441	46	89	287	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	194	432	72	123	519	211	100	525	50	106	342	61
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	897	148	168	685	277	364	1073	102	280	1165	510
Arrive On Green	0.11	0.29	0.29	0.09	0.28	0.28	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3042	503	1781	2453	993	980	3274	311	837	3554	1557
Grp Volume(v), veh/h	194	251	253	123	375	355	100	284	291	106	342	61
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1669	980	1777	1808	837	1777	1557
Q Serve(g_s), s	6.9	7.4	7.5	4.3	12.3	12.4	5.4	8.1	8.2	7.4	4.6	1.7
Cycle Q Clear(g_c), s	6.9	7.4	7.5	4.3	12.3	12.4	9.9	8.1	8.2	15.6	4.6	1.7
Prop In Lane	1.00		0.28	1.00		0.59	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	196	524	521	168	496	466	364	582	592	280	1165	510
V/C Ratio(X)	0.99	0.48	0.49	0.73	0.76	0.76	0.27	0.49	0.49	0.38	0.29	0.12
Avail Cap(c_a), veh/h	196	699	695	168	671	630	521	866	881	413	1733	759
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	28.3	18.4	18.4	28.0	20.9	21.0	19.6	17.1	17.1	23.4	15.9	15.0
Incr Delay (d2), s/veh	61.0	0.7	0.7	15.0	3.4	3.8	0.4	0.6	0.6	0.8	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.6	2.6	2.3	4.6	4.4	1.1	2.8	2.8	1.3	1.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.3	19.1	19.2	43.1	24.3	24.7	20.0	17.7	17.8	24.2	16.0	15.1
LnGrp LOS	F	B	B	D	C	C	B	B	B	C	B	B
Approach Vol, veh/h		698			853			675			509	
Approach Delay, s/veh		38.6			27.2			18.1			17.6	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.8	12.0	24.7		26.8	13.0	23.7				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		31.0	6.0	25.0		31.0	7.0	24.0				
Max Q Clear Time (g_c+I1), s		11.9	6.3	9.5		17.6	8.9	14.4				
Green Ext Time (p_c), s		3.2	0.0	2.2		2.3	0.0	2.8				

Intersection Summary												
HCM 7th Control Delay, s/veh			26.1									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	9	2	0	34	0	403	1	15	477	13
Future Volume (veh/h)	13	0	9	2	0	34	0	403	1	15	477	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	0	9	2	0	36	0	424	1	16	502	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	0	45	236	0	114	437	1351	603	722	1351	603
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.00	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	944	0	607	85	0	1536	885	3554	1585	962	3554	1585
Grp Volume(v), veh/h	23	0	0	38	0	0	0	424	1	16	502	14
Grp Sat Flow(s),veh/h/ln	1551	0	0	1621	0	0	885	1777	1585	962	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.4	0.0	0.2	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.3	0.0	0.0	0.0	1.4	0.0	1.6	1.7	0.1
Prop In Lane	0.61		0.39	0.05		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	466	0	0	350	0	0	437	1351	603	722	1351	603
V/C Ratio(X)	0.05	0.00	0.00	0.11	0.00	0.00	0.00	0.31	0.00	0.02	0.37	0.02
Avail Cap(c_a), veh/h	1940	0	0	1952	0	0	1066	3880	1730	1407	3880	1730
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	7.2	0.0	0.0	0.0	3.6	3.2	4.2	3.7	3.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	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	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.2	0.0	0.0	7.4	0.0	0.0	0.0	3.7	3.2	4.2	3.9	3.2
LnGrp LOS	A			A				A		A	A	A
Approach Vol, veh/h		23			38			425			532	
Approach Delay, s/veh		7.2			7.4			3.7			3.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	10.8	5.7	10.8	5.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	3.4	2.2	3.7	2.3
Green Ext Time (p_c), s	2.1	0.0	2.6	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	4.0
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	436	551	5
Future Vol, veh/h	0	7	0	436	551	5
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	469	592	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	309	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	687	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	680	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.35	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	680	-	-
HCM Lane V/C Ratio	-	0.011	-	-
HCM Ctrl Dly (s/v)	-	10.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

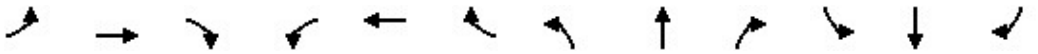
Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	173	14	5
Future Vol, veh/h	0	6	2	173	14	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	-	-	-	-	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	0	7	2	188	15	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	196	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	793	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	792	1081
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.08	9.33
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	21	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



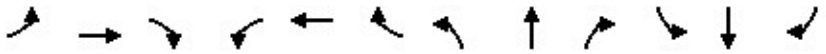
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	280	83	66	614	196	74	493	43	137	503	50
Future Volume (veh/h)	27	280	83	66	614	196	74	493	43	137	503	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	29	304	31	72	667	163	80	536	38	149	547	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	1164	510	417	924	226	142	809	57	192	894	72
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.24	0.24	0.11	0.27	0.27
Sat Flow, veh/h	660	3554	1557	1043	2820	688	1781	3361	238	1781	3326	267
Grp Volume(v), veh/h	29	304	31	72	420	410	80	283	291	149	292	299
Grp Sat Flow(s),veh/h/ln	660	1777	1557	1043	1777	1732	1781	1777	1822	1781	1777	1816
Q Serve(g_s), s	2.1	3.2	0.7	2.8	10.6	10.6	2.2	7.3	7.4	4.1	7.3	7.4
Cycle Q Clear(g_c), s	12.7	3.2	0.7	6.0	10.6	10.6	2.2	7.3	7.4	4.1	7.3	7.4
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.13	1.00		0.15
Lane Grp Cap(c), veh/h	220	1164	510	417	582	567	142	428	439	192	478	488
V/C Ratio(X)	0.13	0.26	0.06	0.17	0.72	0.72	0.56	0.66	0.66	0.78	0.61	0.61
Avail Cap(c_a), veh/h	321	1709	749	577	854	833	332	854	876	332	854	873
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	20.7	12.6	11.8	14.8	15.1	15.1	22.6	17.5	17.5	22.1	16.3	16.3
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.2	1.5	1.5	3.5	1.8	1.7	6.6	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	0.2	0.5	3.4	3.3	0.9	2.5	2.6	1.8	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.9	12.7	11.8	15.0	16.6	16.6	26.0	19.2	19.2	28.7	17.6	17.6
LnGrp LOS	C	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		364			902			654			740	
Approach Delay, s/veh		13.3			16.4			20.0			19.8	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	17.8		22.2	9.6	19.2		22.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.1	9.4		14.7	4.2	9.4		12.6				
Green Ext Time (p_c), s	0.1	2.6		1.2	0.1	2.7		3.5				

Intersection Summary												
HCM 7th Control Delay, s/veh			17.8									
HCM 7th LOS			B									

Notes

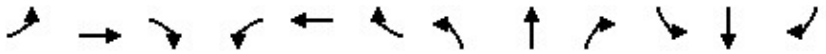
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	272	110	57	512	171	79	351	42	133	401	76
Future Volume (veh/h)	94	272	110	57	512	171	79	351	42	133	401	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	97	280	38	59	528	109	81	362	37	137	413	49
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	378	1280	561	529	1054	217	188	520	49	562	1224	144
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	790	3554	1558	1059	2925	601	179	1356	128	984	3195	377
Grp Volume(v), veh/h	97	280	38	59	320	317	480	0	0	137	229	233
Grp Sat Flow(s),veh/h/ln	790	1777	1558	1059	1777	1750	1663	0	0	984	1777	1795
Q Serve(g_s), s	3.8	1.9	0.6	1.4	4.9	5.0	4.0	0.0	0.0	0.0	3.2	3.2
Cycle Q Clear(g_c), s	8.8	1.9	0.6	3.4	4.9	5.0	8.4	0.0	0.0	3.9	3.2	3.2
Prop In Lane	1.00		1.00	1.00		0.34	0.17		0.08	1.00		0.21
Lane Grp Cap(c), veh/h	378	1280	561	529	640	630	757	0	0	562	681	688
V/C Ratio(X)	0.26	0.22	0.07	0.11	0.50	0.50	0.63	0.00	0.00	0.24	0.34	0.34
Avail Cap(c_a), veh/h	555	2077	910	766	1038	1023	1524	0	0	1041	1545	1561
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	1.00	1.00
Uniform Delay (d), s/veh	12.2	7.8	7.4	9.0	8.8	8.8	9.1	0.0	0.0	7.9	7.7	7.7
Incr Delay (d2), s/veh	0.4	0.1	0.1	0.1	0.6	0.6	0.9	0.0	0.0	0.2	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.2	1.0	1.0	1.6	0.0	0.0	0.4	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.6	7.9	7.4	9.1	9.4	9.4	10.0	0.0	0.0	8.1	7.9	8.0
LnGrp LOS	B	A	A	A	A	A	B			A	A	A
Approach Vol, veh/h		415			696			480			599	
Approach Delay, s/veh		8.9			9.3			10.0			8.0	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	17.9	17.1	17.9	17.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	20.5	30.5	20.5
Max Q Clear Time (g_c+I1), s	10.4	10.8	5.9	7.0
Green Ext Time (p_c), s	2.8	1.6	3.1	3.0

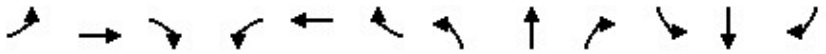
Intersection Summary	
HCM 7th Control Delay, s/veh	9.0
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	333	82	135	547	31	65	0	256	3	0	77
Future Volume (veh/h)	60	333	82	135	547	31	65	0	256	3	0	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	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	76	422	104	171	692	39	82	0	324	4	0	97
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	384	1142	279	462	1386	78	192	34	421	532	0	536
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.34	0.00	0.34	0.34	0.00	0.34
Sat Flow, veh/h	724	2814	686	875	3414	192	209	100	1222	964	0	1557
Grp Volume(v), veh/h	76	265	261	171	360	371	406	0	0	4	0	97
Grp Sat Flow(s),veh/h/ln	724	1777	1724	875	1777	1829	1531	0	0	964	0	1557
Q Serve(g_s), s	3.1	3.7	3.8	6.1	5.4	5.4	4.6	0.0	0.0	0.0	0.0	1.6
Cycle Q Clear(g_c), s	8.6	3.7	3.8	10.0	5.4	5.4	8.4	0.0	0.0	0.1	0.0	1.6
Prop In Lane	1.00		0.40	1.00		0.11	0.20		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	384	721	700	462	721	742	647	0	0	532	0	536
V/C Ratio(X)	0.20	0.37	0.37	0.37	0.50	0.50	0.63	0.00	0.00	0.01	0.00	0.18
Avail Cap(c_a), veh/h	452	888	862	544	888	914	880	0	0	696	0	778
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	1.00
Uniform Delay (d), s/veh	11.2	7.5	7.5	11.0	8.0	8.0	10.4	0.0	0.0	7.8	0.0	8.3
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.5	0.5	0.5	1.0	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.7	0.7	1.0	1.0	2.3	0.0	0.0	0.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	7.8	7.8	11.5	8.5	8.5	11.4	0.0	0.0	7.8	0.0	8.4
LnGrp LOS	B	A	A	B	A	A	B			A		A
Approach Vol, veh/h		602			902			406			101	
Approach Delay, s/veh		8.3			9.1			11.4			8.4	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.9	19.1	16.9	19.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	10.4	10.6	3.6	12.0
Green Ext Time (p_c), s	1.7	1.9	0.2	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	9.3
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	363	72	103	436	190	84	441	46	89	287	172
Future Volume (veh/h)	163	363	72	103	436	190	84	441	46	89	287	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	194	432	72	123	519	211	100	525	50	106	342	61
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	897	148	168	685	277	364	1073	102	280	1165	510
Arrive On Green	0.11	0.29	0.29	0.09	0.28	0.28	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3042	503	1781	2453	993	980	3274	311	837	3554	1557
Grp Volume(v), veh/h	194	251	253	123	375	355	100	284	291	106	342	61
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1669	980	1777	1808	837	1777	1557
Q Serve(g_s), s	6.9	7.4	7.5	4.3	12.3	12.4	5.4	8.1	8.2	7.4	4.6	1.7
Cycle Q Clear(g_c), s	6.9	7.4	7.5	4.3	12.3	12.4	9.9	8.1	8.2	15.6	4.6	1.7
Prop In Lane	1.00		0.28	1.00		0.59	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	196	524	521	168	496	466	364	582	592	280	1165	510
V/C Ratio(X)	0.99	0.48	0.49	0.73	0.76	0.76	0.27	0.49	0.49	0.38	0.29	0.12
Avail Cap(c_a), veh/h	196	699	695	168	671	630	521	866	881	413	1733	759
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	28.3	18.4	18.4	28.0	20.9	21.0	19.6	17.1	17.1	23.4	15.9	15.0
Incr Delay (d2), s/veh	61.0	0.7	0.7	15.0	3.4	3.8	0.4	0.6	0.6	0.8	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.6	2.6	2.3	4.6	4.4	1.1	2.8	2.8	1.3	1.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.3	19.1	19.2	43.1	24.3	24.7	20.0	17.7	17.8	24.2	16.0	15.1
LnGrp LOS	F	B	B	D	C	C	B	B	B	C	B	B
Approach Vol, veh/h		698			853			675			509	
Approach Delay, s/veh		38.6			27.2			18.1			17.6	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	26.8	12.0	24.7	26.8	13.0	23.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	6.0	25.0	31.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	11.9	6.3	9.5	17.6	8.9	14.4
Green Ext Time (p_c), s	3.2	0.0	2.2	2.3	0.0	2.8

Intersection Summary	
HCM 7th Control Delay, s/veh	26.1
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	9	2	0	34	0	403	1	15	477	13
Future Vol, veh/h	13	0	9	2	0	34	0	403	1	15	477	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	200	100	-	120
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	10	2	0	37	0	438	1	16	518	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	770	990	259	730	1003	219	533	0	0	439	0	0
Stage 1	551	551	-	438	438	-	-	-	-	-	-	-
Stage 2	219	439	-	292	565	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	290	245	740	310	241	785	1031	-	-	1117	-	-
Stage 1	486	514	-	567	577	-	-	-	-	-	-	-
Stage 2	763	576	-	692	506	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	241	740	302	237	785	1031	-	-	1117	-	-
Mov Cap-2 Maneuver	272	241	-	302	237	-	-	-	-	-	-	-
Stage 1	479	506	-	567	577	-	-	-	-	-	-	-
Stage 2	727	576	-	673	499	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.48	10.28	0	0.25
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1031	-	-	367	721	1117	-	-
HCM Lane V/C Ratio	-	-	-	0.065	0.054	0.015	-	-
HCM Ctrl Dly (s/v)	0	-	-	15.5	10.3	8.3	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	436	551	5
Future Vol, veh/h	0	7	0	436	551	5
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	469	592	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	309	603	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	687	971	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	680	966	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.35	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	966	-	680	-	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Ctrl Dly (s/v)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

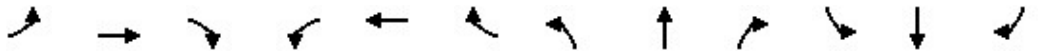
Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	173	14	5
Future Vol, veh/h	0	6	2	173	14	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	-	-	-	-	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	0	7	2	188	15	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	196	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	793	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	792	1081
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.08	9.33
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	21	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



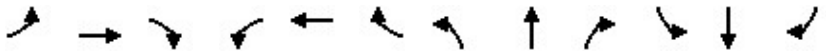
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	562	78	35	414	127	73	565	103	154	558	46
Future Volume (veh/h)	49	562	78	35	414	127	73	565	103	154	558	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	53	611	26	38	450	88	79	614	103	167	607	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	1012	443	244	842	163	139	862	144	213	1101	72
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.08	0.28	0.28	0.12	0.33	0.33
Sat Flow, veh/h	865	3554	1555	790	2957	574	1781	3036	508	1781	3380	222
Grp Volume(v), veh/h	53	611	26	38	269	269	79	359	358	167	319	328
Grp Sat Flow(s),veh/h/ln	865	1777	1555	790	1777	1754	1781	1777	1767	1781	1777	1826
Q Serve(g_s), s	2.9	7.9	0.6	2.3	6.8	6.9	2.3	9.6	9.6	4.8	7.8	7.8
Cycle Q Clear(g_c), s	9.8	7.9	0.6	10.2	6.8	6.9	2.3	9.6	9.6	4.8	7.8	7.8
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.29	1.00		0.12
Lane Grp Cap(c), veh/h	270	1012	443	244	506	499	139	505	502	213	579	595
V/C Ratio(X)	0.20	0.60	0.06	0.16	0.53	0.54	0.57	0.71	0.71	0.78	0.55	0.55
Avail Cap(c_a), veh/h	425	1645	720	384	823	812	320	823	818	320	823	845
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	20.1	16.4	13.8	20.7	16.0	16.0	23.5	17.0	17.0	22.6	14.7	14.7
Incr Delay (d2), s/veh	0.3	0.5	0.0	0.3	0.7	0.8	3.6	1.9	1.9	7.2	0.8	0.8
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	0.5	2.5	0.2	0.4	2.2	2.2	0.9	3.3	3.3	2.1	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.4	16.9	13.8	21.0	16.7	16.8	27.2	18.9	18.9	29.8	15.5	15.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		690			576			796			814	
Approach Delay, s/veh		17.0			17.0			19.7			18.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	20.5		20.6	9.6	22.7		20.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.8	11.6		11.8	4.3	9.8		12.2				
Green Ext Time (p_c), s	0.1	3.2		2.9	0.1	3.0		2.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		18.2	
HCM 7th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	534	101	112	369	202	89	396	55	212	346	71
Future Volume (veh/h)	87	534	101	112	369	202	89	396	55	212	346	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	90	551	104	115	380	208	92	408	57	219	357	73
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	388	1124	211	368	837	451	180	510	66	477	1148	232
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	827	2976	559	777	2215	1193	185	1304	170	926	2935	593
Grp Volume(v), veh/h	90	328	327	115	304	284	557	0	0	219	214	216
Grp Sat Flow(s),veh/h/ln	827	1777	1758	777	1777	1631	1659	0	0	926	1777	1752
Q Serve(g_s), s	3.6	5.5	5.5	5.2	5.0	5.1	7.3	0.0	0.0	0.0	3.3	3.3
Cycle Q Clear(g_c), s	8.7	5.5	5.5	10.7	5.0	5.1	11.8	0.0	0.0	11.0	3.3	3.3
Prop In Lane	1.00		0.32	1.00		0.73	0.17		0.10	1.00		0.34
Lane Grp Cap(c), veh/h	388	671	664	368	671	616	757	0	0	477	695	685
V/C Ratio(X)	0.23	0.49	0.49	0.31	0.45	0.46	0.74	0.00	0.00	0.46	0.31	0.31
Avail Cap(c_a), veh/h	458	821	812	433	821	753	869	0	0	542	821	809
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	1.00	1.00
Uniform Delay (d), s/veh	12.4	9.3	9.3	13.4	9.1	9.1	10.6	0.0	0.0	10.6	8.2	8.2
Incr Delay (d2), s/veh	0.3	0.6	0.6	0.5	0.5	0.5	2.8	0.0	0.0	0.7	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.2	1.2	0.6	1.1	1.0	2.9	0.0	0.0	1.0	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.7	9.8	9.8	13.8	9.6	9.7	13.5	0.0	0.0	11.3	8.5	8.5
LnGrp LOS	B	A	A	B	A	A	B			B	A	A
Approach Vol, veh/h		745			703			557			649	
Approach Delay, s/veh		10.2			10.3			13.5			9.4	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	19.7	19.2	19.7	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	13.8	10.7	13.0	12.7
Green Ext Time (p_c), s	1.3	2.4	1.6	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	10.7
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	31.5

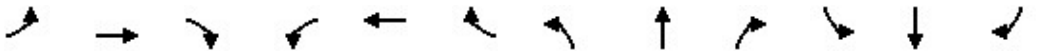
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	612	51	65	528	18	53	2	107	10	0	54
Future Vol, veh/h	77	612	51	65	528	18	53	2	107	10	0	54
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	775	65	82	668	23	67	3	135	13	0	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	696	0	0	844	0	0	1511	1868	430	1438	-	356
Stage 1	-	-	-	-	-	-	1007	1007	-	849	-	-
Stage 2	-	-	-	-	-	-	504	861	-	589	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	896	-	-	788	-	-	83	72	574	94	0	641
Stage 1	-	-	-	-	-	-	258	317	-	322	0	-
Stage 2	-	-	-	-	-	-	519	371	-	462	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	784	-	-	~ 58	57	568	54	-	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 58	57	-	54	-	-
Stage 1	-	-	-	-	-	-	229	281	-	287	-	-
Stage 2	-	-	-	-	-	-	412	330	-	309	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.99	1.08	288.43	23.69
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	143	891	-	-	784	-	-	54	635
HCM Lane V/C Ratio	1.434	0.109	-	-	0.105	-	-	0.233	0.108
HCM Ctrl Dly (s/v)	288.4	9.5	-	-	10.1	-	-	90.3	11.4
HCM Lane LOS	F	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	13.5	0.4	-	-	0.4	-	-	0.8	0.4

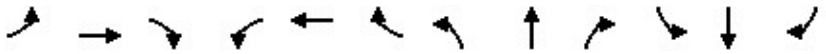
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	539	107	75	323	183	82	403	51	233	488	152
Future Volume (veh/h)	178	539	107	75	323	183	82	403	51	233	488	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	212	642	113	89	385	203	98	480	56	277	581	37
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	801	141	143	567	294	337	1324	154	365	1470	645
Arrive On Green	0.09	0.27	0.27	0.08	0.25	0.25	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3011	529	1781	2245	1165	804	3201	372	867	3554	1559
Grp Volume(v), veh/h	212	378	377	89	303	285	98	265	271	277	581	37
Grp Sat Flow(s),veh/h/ln	1781	1777	1763	1781	1777	1633	804	1777	1796	867	1777	1559
Q Serve(g_s), s	7.0	14.9	14.9	3.6	11.5	11.8	7.3	7.7	7.8	23.2	8.6	1.1
Cycle Q Clear(g_c), s	7.0	14.9	14.9	3.6	11.5	11.8	15.9	7.7	7.8	31.0	8.6	1.1
Prop In Lane	1.00		0.30	1.00		0.71	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	166	473	469	143	449	413	337	735	743	365	1470	645
V/C Ratio(X)	1.27	0.80	0.80	0.62	0.68	0.69	0.29	0.36	0.36	0.76	0.40	0.06
Avail Cap(c_a), veh/h	166	593	588	143	569	523	337	735	743	365	1470	645
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	34.0	25.6	25.7	33.4	25.2	25.3	21.0	15.1	15.2	26.2	15.4	13.2
Incr Delay (d2), s/veh	161.7	6.2	6.4	8.2	2.2	2.7	0.5	0.3	0.3	9.0	0.2	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	10.2	6.2	6.2	1.7	4.5	4.3	1.2	2.6	2.7	5.2	3.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	195.7	31.8	32.0	41.6	27.4	28.0	21.4	15.4	15.5	35.2	15.6	13.2
LnGrp LOS	F	C	C	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		967			677			634			895	
Approach Delay, s/veh		67.8			29.6			16.4			21.5	
Approach LOS		E			C			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.0	12.0	25.9		37.0	13.0	24.9				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		31.0	6.0	25.0		31.0	7.0	24.0				
Max Q Clear Time (g_c+I1), s		17.9	5.6	16.9		33.0	9.0	13.8				
Green Ext Time (p_c), s		2.8	0.0	2.5		0.0	0.0	2.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			36.3									
HCM 7th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	7	1	0	24	3	438	2	38	480	13
Future Volume (veh/h)	17	0	7	1	0	24	3	438	2	38	480	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	0	7	1	0	25	3	461	2	40	505	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	438	0	27	227	0	99	695	1422	634	718	1422	634
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1090	0	424	63	0	1575	882	3554	1585	929	3554	1585
Grp Volume(v), veh/h	25	0	0	26	0	0	3	461	2	40	505	14
Grp Sat Flow(s),veh/h/ln	1514	0	0	1638	0	0	882	1777	1585	929	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.2	0.0	0.0	1.7	1.5	0.0	2.0	1.7	0.1
Prop In Lane	0.72		0.28	0.04		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	0	0	326	0	0	695	1422	634	718	1422	634
V/C Ratio(X)	0.05	0.00	0.00	0.08	0.00	0.00	0.00	0.32	0.00	0.06	0.36	0.02
Avail Cap(c_a), veh/h	1916	0	0	1920	0	0	1289	3814	1701	1344	3814	1701
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	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	0.0	0.0	7.5	0.0	0.0	4.1	3.5	3.0	4.2	3.5	3.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	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	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.5	0.0	0.0	7.6	0.0	0.0	4.1	3.6	3.0	4.2	3.7	3.1
LnGrp LOS	A			A				A		A	A	A
Approach Vol, veh/h		25			26			466			559	
Approach Delay, s/veh		7.5			7.6			3.6			3.7	
Approach LOS		A			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	11.2	5.6	11.2	5.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	3.7	2.2	4.0	2.2
Green Ext Time (p_c), s	2.3	0.1	2.7	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	3.8
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	519	542	6
Future Vol, veh/h	0	4	0	519	542	6
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	558	583	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	305	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	691	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	685	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.29	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	685	-	-
HCM Lane V/C Ratio	-	0.006	-	-
HCM Ctrl Dly (s/v)	-	10.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

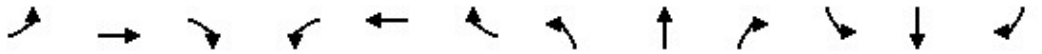
Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	15	5	20	10	3
Future Vol, veh/h	0	15	5	20	10	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	-	-	-	-	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	0	16	5	22	11	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	16	0	41	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1601	-	971	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1601	-	967	1074
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	990	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.45	8.69
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	360	-
HCM Lane V/C Ratio	0.014	-	-	0.003	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



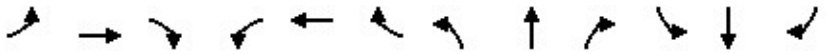
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	562	78	35	414	127	73	565	103	154	558	46
Future Volume (veh/h)	49	562	78	35	414	127	73	565	103	154	558	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	51	579	28	36	427	72	75	582	86	159	575	41
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	287	987	432	256	844	141	139	852	126	205	1048	75
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.08	0.28	0.28	0.11	0.31	0.31
Sat Flow, veh/h	897	3554	1555	812	3036	508	1781	3098	457	1781	3360	239
Grp Volume(v), veh/h	51	579	28	36	249	250	75	333	335	159	304	312
Grp Sat Flow(s),veh/h/ln	897	1777	1555	812	1777	1767	1781	1777	1778	1781	1777	1822
Q Serve(g_s), s	2.5	7.0	0.7	2.0	5.8	5.9	2.0	8.3	8.4	4.3	7.0	7.1
Cycle Q Clear(g_c), s	8.4	7.0	0.7	9.0	5.8	5.9	2.0	8.3	8.4	4.3	7.0	7.1
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.26	1.00		0.13
Lane Grp Cap(c), veh/h	287	987	432	256	494	491	139	489	489	205	554	568
V/C Ratio(X)	0.18	0.59	0.06	0.14	0.50	0.51	0.54	0.68	0.68	0.78	0.55	0.55
Avail Cap(c_a), veh/h	481	1753	767	432	877	872	341	877	877	341	877	899
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	18.6	15.5	13.2	19.3	15.1	15.1	22.0	16.1	16.1	21.4	14.2	14.2
Incr Delay (d2), s/veh	0.2	0.5	0.1	0.2	0.7	0.7	3.2	1.7	1.7	6.3	0.8	0.8
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	0.4	2.2	0.2	0.3	1.9	1.9	0.8	2.8	2.8	1.8	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.9	15.9	13.2	19.5	15.7	15.8	25.3	17.7	17.8	27.6	15.0	15.0
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		658			535			743			775	
Approach Delay, s/veh		16.1			16.0			18.5			17.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	19.2		19.3	9.4	21.0		19.3				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	24.5		24.5	9.5	24.5		24.5				
Max Q Clear Time (g_c+I1), s	6.3	10.4		10.4	4.0	9.1		11.0				
Green Ext Time (p_c), s	0.1	3.1		2.9	0.1	2.9		2.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			17.2									
HCM 7th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	534	101	112	369	202	89	396	55	212	346	71
Future Volume (veh/h)	87	534	101	112	369	202	89	396	55	212	346	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	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	96	587	34	123	405	74	98	435	53	233	380	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	406	1281	562	357	1080	196	181	567	65	480	1487	62
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	914	3554	1558	802	2996	543	193	1324	151	907	3472	146
Grp Volume(v), veh/h	96	587	34	123	239	240	586	0	0	233	194	202
Grp Sat Flow(s),veh/h/ln	914	1777	1558	802	1777	1761	1667	0	0	907	1777	1841
Q Serve(g_s), s	3.7	5.4	0.6	5.9	4.2	4.3	7.8	0.0	0.0	0.4	3.0	3.0
Cycle Q Clear(g_c), s	8.0	5.4	0.6	11.3	4.2	4.3	12.9	0.0	0.0	13.3	3.0	3.0
Prop In Lane	1.00		1.00	1.00		0.31	0.17		0.09	1.00		0.08
Lane Grp Cap(c), veh/h	406	1281	562	357	641	635	813	0	0	480	761	788
V/C Ratio(X)	0.24	0.46	0.06	0.34	0.37	0.38	0.72	0.00	0.00	0.49	0.25	0.26
Avail Cap(c_a), veh/h	517	1710	750	454	855	848	1274	0	0	741	1272	1319
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	1.00	1.00
Uniform Delay (d), s/veh	13.0	10.4	8.9	14.8	10.1	10.1	10.5	0.0	0.0	10.8	7.8	7.8
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.6	0.4	0.4	1.2	0.0	0.0	0.8	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	0.1	0.8	1.1	1.1	2.8	0.0	0.0	1.2	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.3	10.7	8.9	15.3	10.4	10.5	11.7	0.0	0.0	11.6	8.0	8.0
LnGrp LOS	B	B	A	B	B	B	B			B	A	A
Approach Vol, veh/h		717			602			586			629	
Approach Delay, s/veh		11.0			11.4			11.7			9.3	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	22.7	19.9	22.7	19.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	20.5	30.5	20.5
Max Q Clear Time (g_c+I1), s	14.9	10.0	15.3	13.3
Green Ext Time (p_c), s	3.3	2.9	2.9	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	10.8
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	612	51	65	528	18	53	2	107	10	0	54
Future Volume (veh/h)	77	612	51	65	528	18	53	2	107	10	0	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	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	107	850	71	90	733	25	74	3	149	14	0	75
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	461	1538	128	403	1626	55	242	39	244	597	0	379
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	706	3312	277	606	3502	119	357	160	1000	1492	0	1554
Grp Volume(v), veh/h	107	456	465	90	372	386	226	0	0	14	0	75
Grp Sat Flow(s),veh/h/ln	706	1777	1812	606	1777	1845	1517	0	0	1492	0	1554
Q Serve(g_s), s	3.7	5.7	5.7	3.9	4.4	4.4	2.0	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	8.1	5.7	5.7	9.6	4.4	4.4	4.0	0.0	0.0	0.2	0.0	1.2
Prop In Lane	1.00		0.15	1.00		0.06	0.33		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	461	825	841	403	825	857	525	0	0	597	0	379
V/C Ratio(X)	0.23	0.55	0.55	0.22	0.45	0.45	0.43	0.00	0.00	0.02	0.00	0.20
Avail Cap(c_a), veh/h	546	1038	1058	476	1038	1078	1025	0	0	1016	0	907
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	1.00
Uniform Delay (d), s/veh	8.3	5.9	5.9	9.4	5.6	5.6	10.3	0.0	0.0	8.9	0.0	9.3
Incr Delay (d2), s/veh	0.3	0.6	0.6	0.3	0.4	0.4	0.6	0.0	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.5	0.3	0.4	0.4	1.1	0.0	0.0	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.6	6.5	6.5	9.7	6.0	6.0	10.8	0.0	0.0	8.9	0.0	9.5
LnGrp LOS	A	A	A	A	A	A	B			A		A
Approach Vol, veh/h		1028			848			226			89	
Approach Delay, s/veh		6.7			6.4			10.8			9.4	
Approach LOS		A			A			B			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	12.0	18.8	12.0	18.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	6.0	10.1	3.2	11.6
Green Ext Time (p_c), s	1.1	3.5	0.2	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	7.1
HCM 7th LOS	A

Min green cannot be greater than Max Green.

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	0	7	1	0	24	3	438	2	38	480	13
Future Vol, veh/h	17	0	7	1	0	24	3	438	2	38	480	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	200	100	-	120
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	0	8	1	0	26	3	476	2	41	522	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	849	1089	261	826	1101	238	536	0	0	478	0	0
Stage 1	604	604	-	483	483	-	-	-	-	-	-	-
Stage 2	245	485	-	343	618	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	254	214	738	264	211	763	1028	-	-	1080	-	-
Stage 1	452	486	-	534	551	-	-	-	-	-	-	-
Stage 2	737	550	-	645	479	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	236	205	738	251	202	763	1028	-	-	1080	-	-
Mov Cap-2 Maneuver	236	205	-	251	202	-	-	-	-	-	-	-
Stage 1	435	467	-	532	549	-	-	-	-	-	-	-
Stage 2	710	548	-	614	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.44	10.31	0.06	0.61
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1028	-	-	294	706	1080	-	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.039	0.038	-	-
HCM Ctrl Dly (s/v)	8.5	-	-	18.4	10.3	8.5	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	519	542	6
Future Vol, veh/h	0	4	0	519	542	6
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	558	583	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	305	594	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	691	978	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	685	973	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.29	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	973	-	685	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Ctrl Dly (s/v)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.8

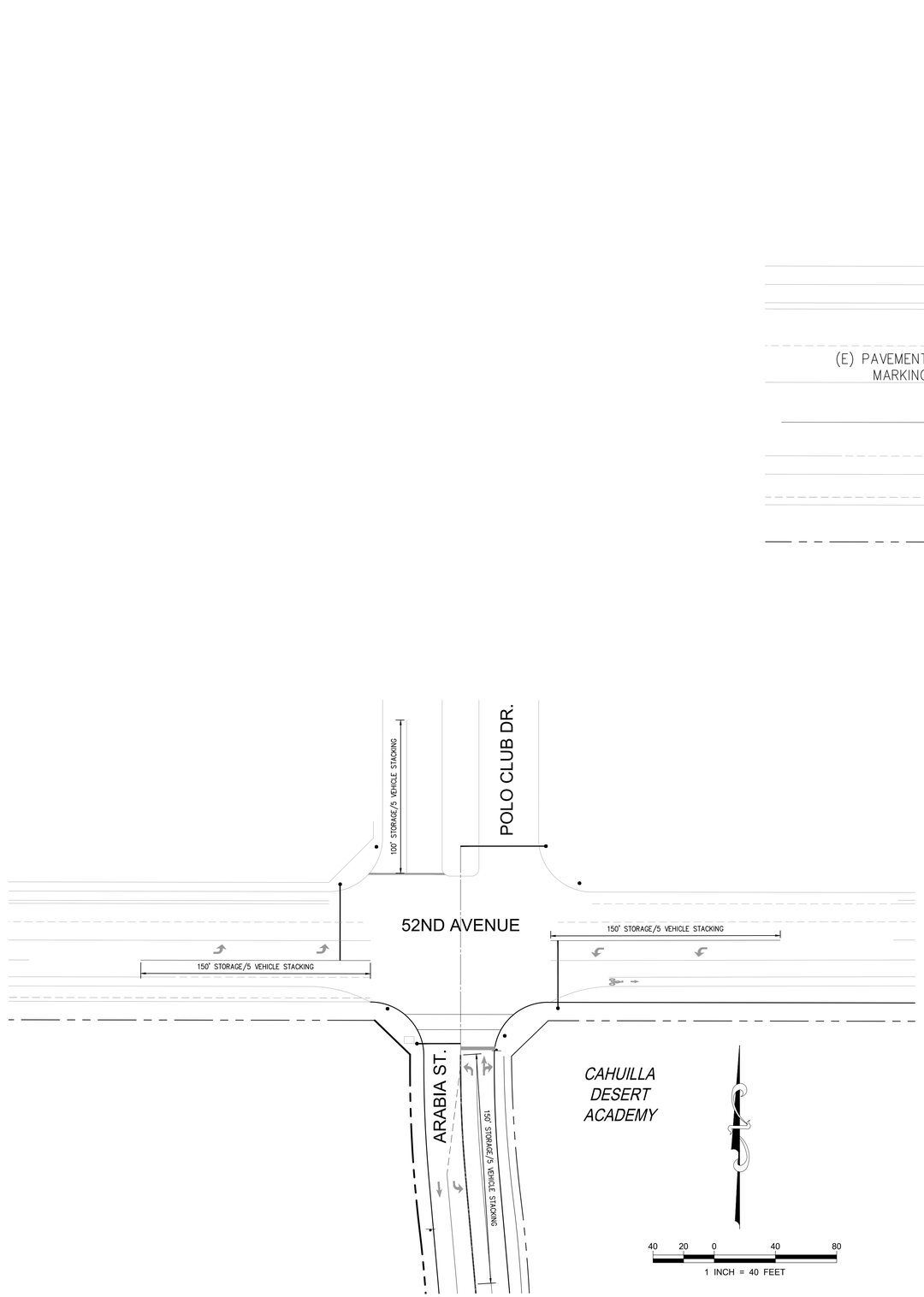
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	15	5	20	10	3
Future Vol, veh/h	0	15	5	20	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	5	22	11	3

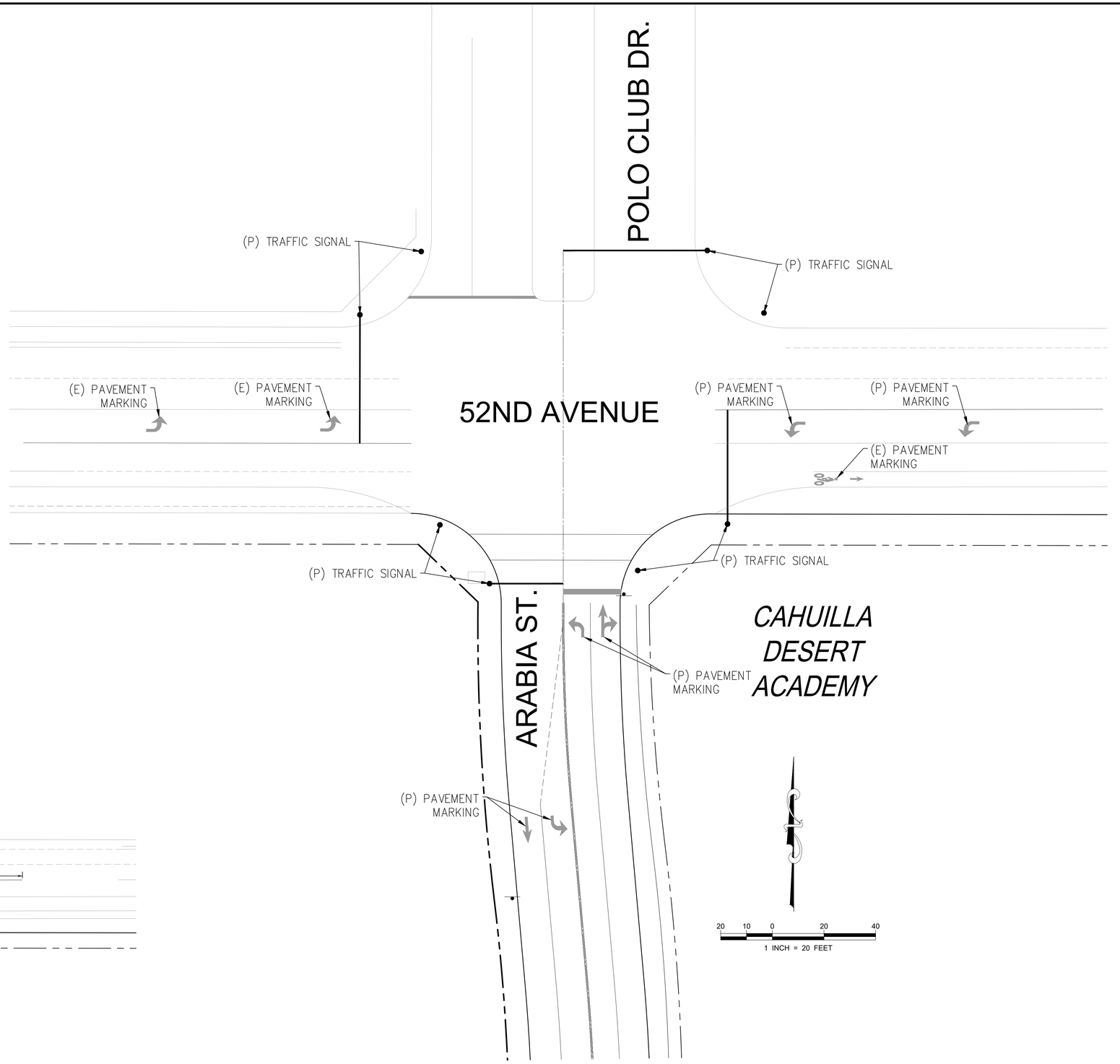
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	16	0	41	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1601	-	971	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1601	-	967	1074
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	990	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.45	8.69
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	360	-
HCM Lane V/C Ratio	0.014	-	-	0.003	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Appendix K: Recommended Geometry and Storage Length Exhibits —Monroe Street/Drive A and 52nd Avenue/Arabia Street





REVISIONS			
DESCRIPTION	APD	REV	DATE

SURVEY BY:
VERTEX SURVEY
28348 Constellation Rd
SUITE 800
SANTA CLARITA, CA 91355
(661) 254-1928

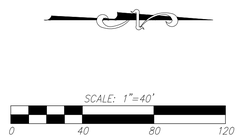
rtm engineering consultants
1 Ada, Suite 100
Irvine, CA 92618
Phone: 949.453.0111

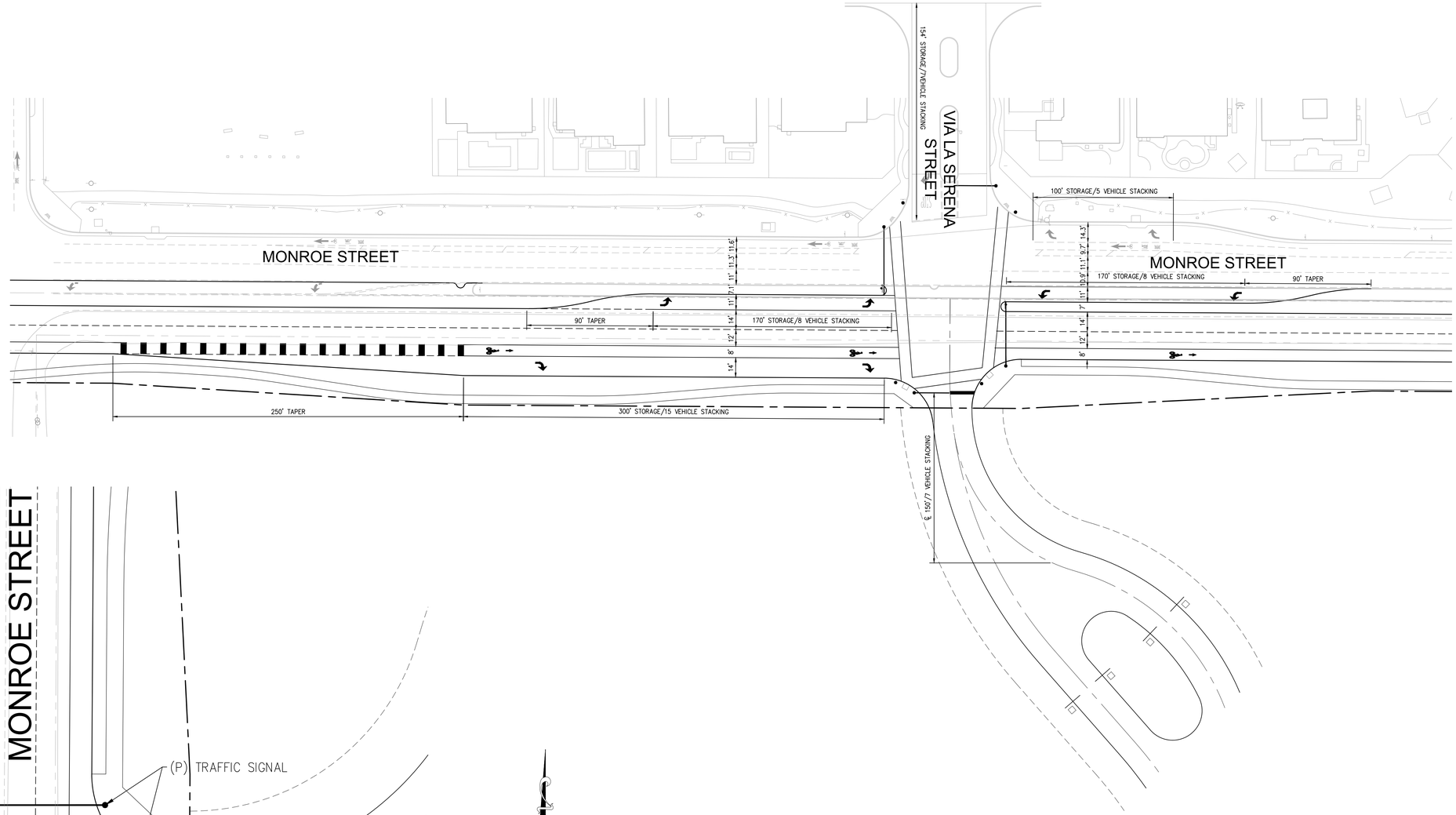
COUNTY OF RIVERSIDE
TENTATIVE TRACT MAP NO. 39179

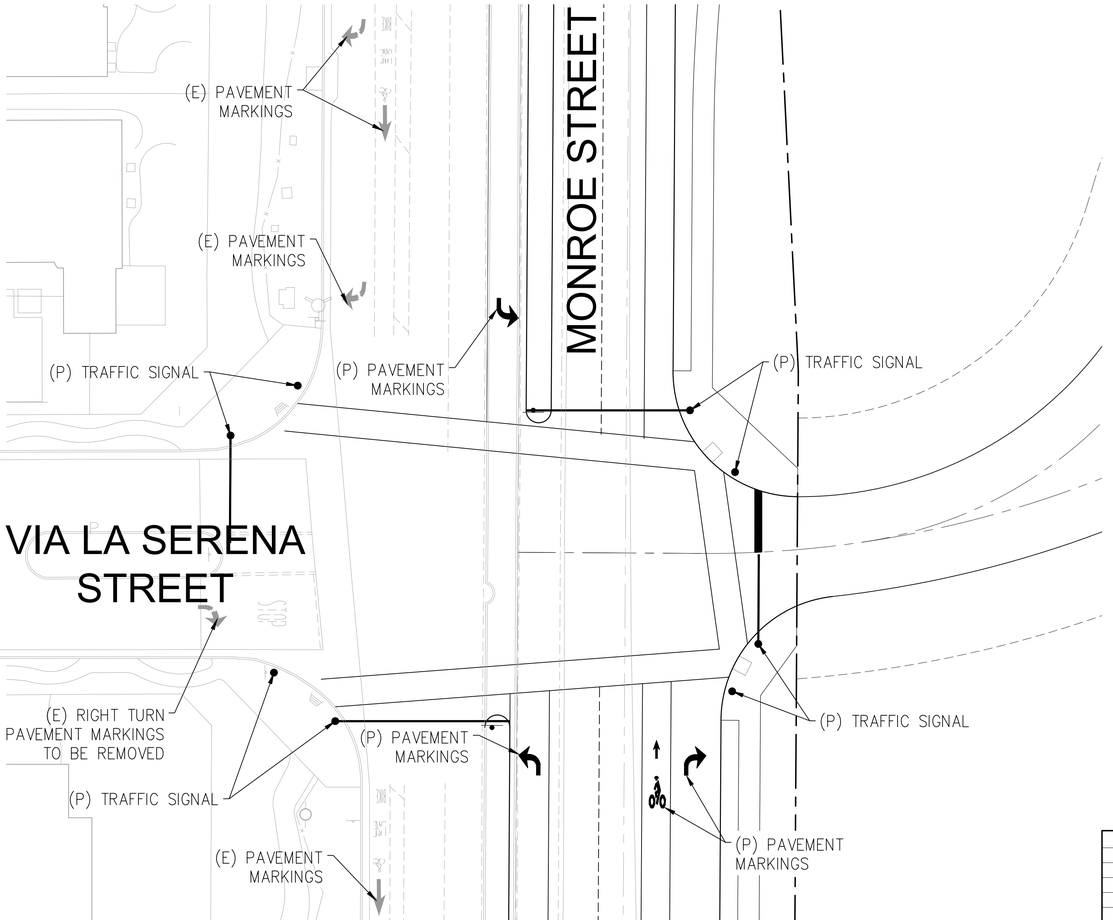
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Checked By: WA
Scale:

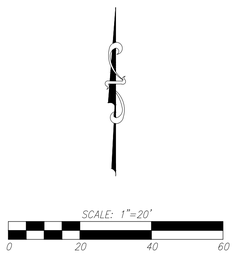
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OF 1 SHEETS

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REVISIONS			
DESCRIPTION	APD	REV	DATE

SURVEY BY:
VERTEX SURVEY
28348 Constellation Rd
SUITE 800
SANTA CLARITA, CA 91355
(661) 254-1928

rtm engineering consultants
1 Ada, Suite 100
Irvine, CA 92618
Phone: 949.453.0111

COUNTY OF RIVERSIDE

TENTATIVE TRACT MAP NO. 39179

Drawn By: WA
Checked By: VW
Scale:

MONROE SIGNAL EXHIBIT

SHEET 1 OF 1 SHEETS

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