Draft Environmental
Impact Report

APPENDIX F

TRANSPORTATION ANALYSIS

Transportation Analysis

Phillips 66 Rodeo Renewed Project

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Phillips 66 Rodeo Renewed Project
Contra Costa County

TRANSPORTATION ANALYSIS

1) EXECUTIVE SUMMARY

This transportation analysis describes the existing and future conditions for transportation with and without the proposed project, which consists of a construction project to repurpose the existing Rodeo Refinery into a facility that would process renewable feedstocks into renewable diesel fuel, renewable components of other transportation fuels, and renewable fuel gas. This study presents information on the regional and local roadway networks that serve the project site, the pedestrian and transit conditions in the area, and provides an analysis of the effects on transportation facilities associated with the project and its construction.

This study also describes the regulatory setting; the criterion used for determining the significance of environmental impacts; and summarizes potential environmental impacts and appropriate mitigation measures. This study has been conducted in accordance with the requirements and methodologies set forth by Contra Costa County, the Contra Costa Transportation Authority (CCTA), Caltrans, and the applicable provisions of CEQA. Based on the project's design and a detailed analysis conducted according to the required transportation impact analysis guidelines there would be no significant transportation impacts according to established traffic engineering standards and no off-site traffic or transportation mitigations would be required. It should also be noted that Contra Costa County has adopted vehicle miles travelled (VMT) as a threshold, per CEQA Guidelines section 15064.3, and based on the analysis provided in Section 5.9 the project would not have a significant impact on VMT, subject to approval by the County.

2) PROJECT DESCRIPTION

The Rodeo and Carbon Plant Sites are the existing Phillips 66 Rodeo Refinery located at 1380 San Pablo Ave, Rodeo, CA 94572 which includes 1,100 acres of land. All demolition and construction associated with the Rodeo Refinery would occur within the Rodeo Site, which is a 495-acre parcel that is on the portion of the refinery facilities west of Interstate 80, and is bordered by San Pablo Avenue to the north and west, Interstate 80 to the southeast, the NuStar Energy tank farm to the northeast, and Rodeo to the southwest. The total number of daily truck trips to and from the site would be reduced due to certain components of the Project, mainly related to the shutdown of the Carbon Plant. In addition, the Project does not add additional employees to the workforce or involve construction of any additional office space. The project site and the surrounding roadway system are shown in **Figure 1**. The planned route for construction traffic to and from the site is shown in **Figure 2**.

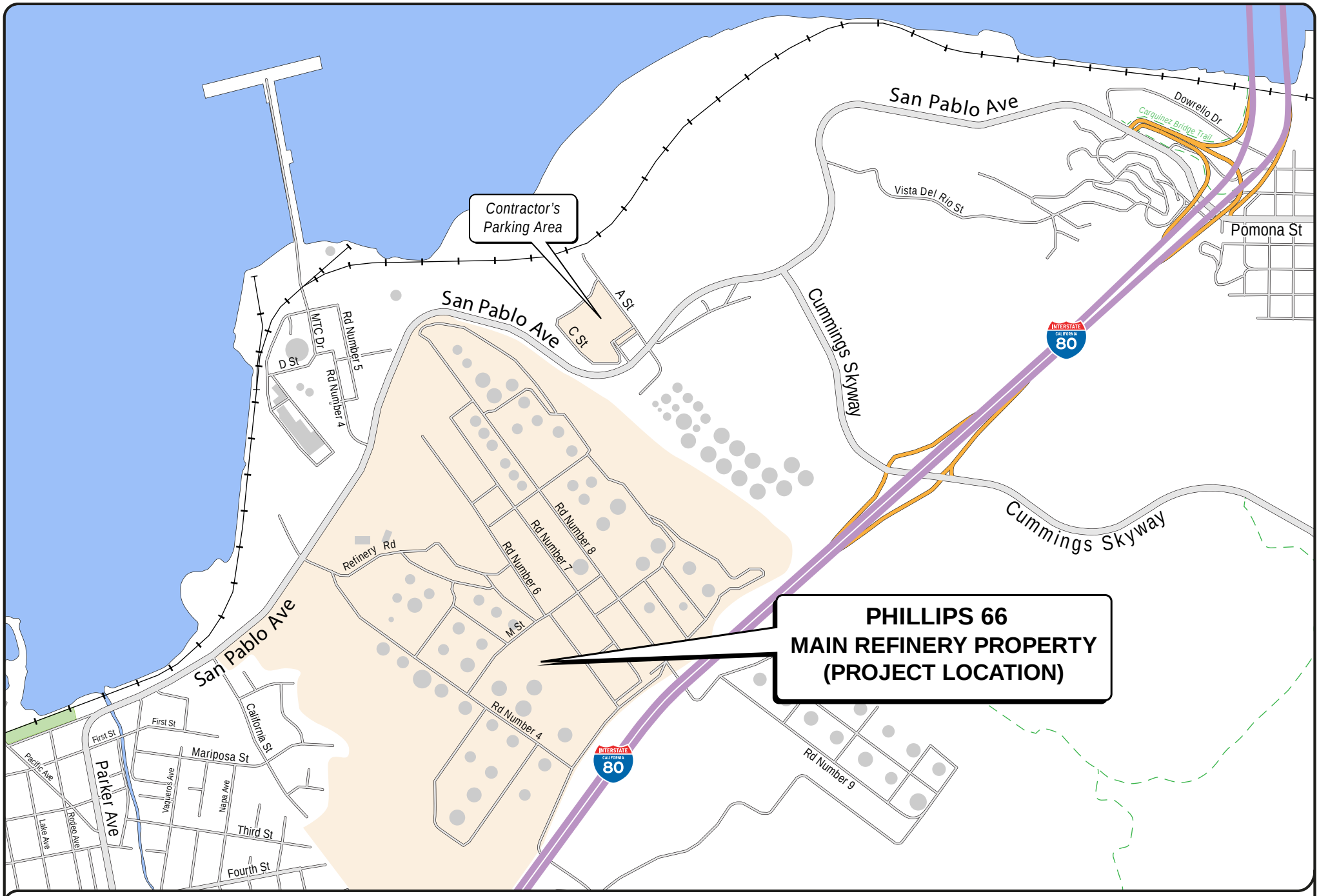

FIGURE 1 | PROJECT LOCATION
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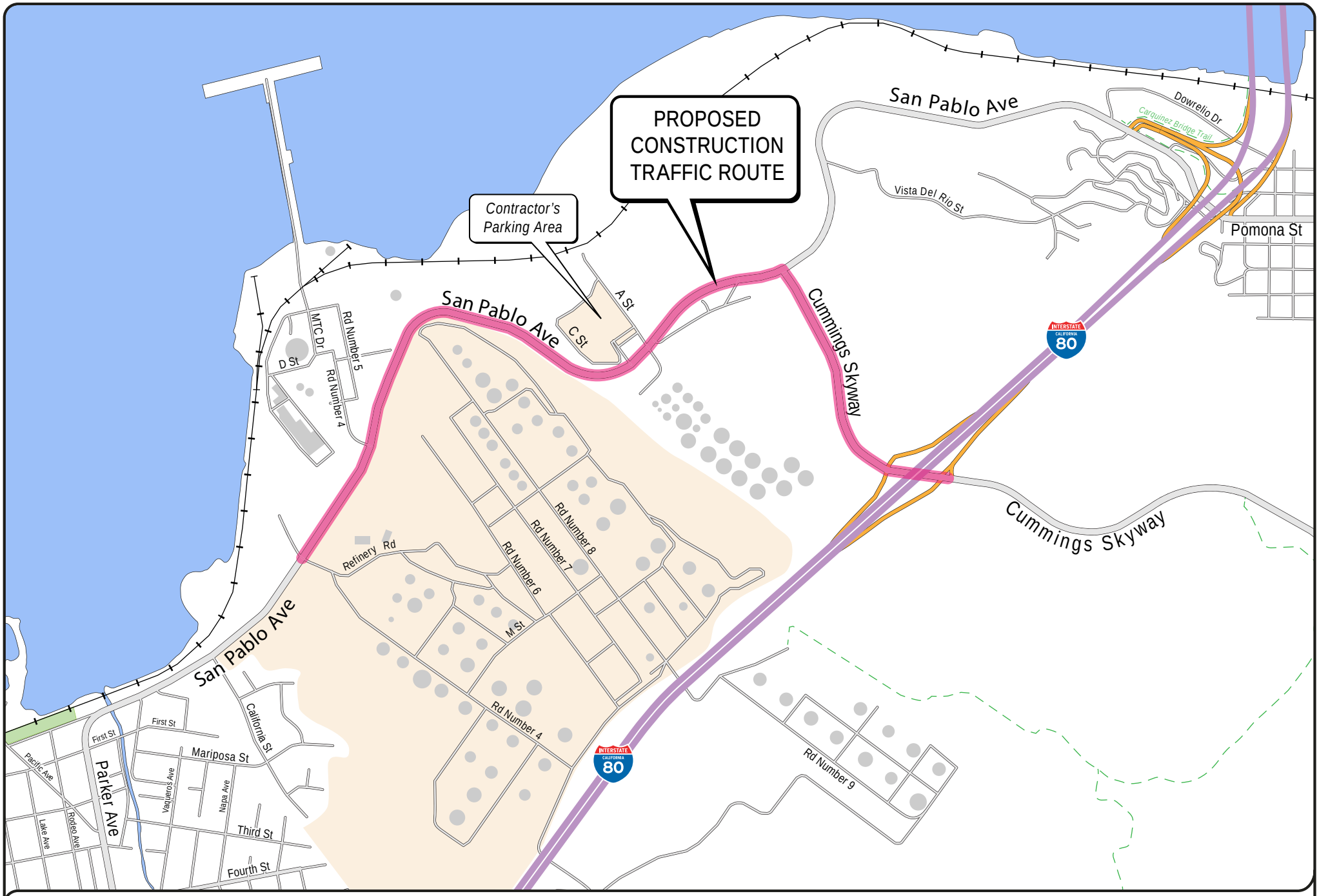

FIGURE 2 | PROPOSED CONSTRUCTION TRAFFIC ROUTE
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The existing refinery is designed and operated to refine a variety of domestic and foreign crude oils, received by pipeline and tanker vessel, into a wide range of products including gasoline and diesel fuels and other fuel gases for industrial applications. The Rodeo Renewed Project would transform the existing Rodeo Refinery into a facility that would process renewable feedstocks into renewable diesel fuel and other transportation fuels. The modified facility would mostly use existing process units, converted to handle the new feedstocks, and existing storage facilities, supplemented by a new renewable feedstocks pre-treatment unit and limited other new equipment. Construction is expected to take approximately two years.

3) ENVIRONMENTAL SETTING

This section of the report describes the roadways, traffic conditions and other existing transportation characteristics in the vicinity of the project. The primary basis of the analysis is the peak hour level of service for the key intersections. Throughout this report, these peak hours will be identified as the AM and PM peak hours.

3.1 Project Study Intersections

Based on the project's trip generation and the potential for adverse effects on traffic operations a list of project study intersections was prepared in coordination with County staff. The study is required to include any intersections where more than 50 peak hour trips would be added as per the Contra Costa Transportation Authority's Technical Procedures.[1] **Figure 1** shows the location of the project study intersections. As mentioned above, all access to the site will be via driveways onto Contra Costa Boulevard and Alan Drive. There are eight (8) study intersections included in the analysis.

Project Study Intersections

1. San Pablo Avenue at Refinery Road (Main Project Entrance)
2. San Pablo Avenue at the Cummings Skyway
3. Cummings Skyway at the I-80 Westbound Ramps
4. Cummings Skyway at the I-80 Westbound Ramps
5. Parker Avenue at Fourth Street
6. Willow Avenue at San Pablo Avenue
7. Willow Avenue at the I-80 Westbound Off-Ramp
8. Willow Avenue at the I-80 Eastbound Ramps

3.2 Traffic Analysis Scenarios

The study intersections were evaluated for the following four scenarios:

[1] *Final Technical Procedures*, Contra Costa Transportation Authority, Walnut Creek, CA, January 16, 2013.

- Scenario 1: *Existing Conditions* – Level of Service (LOS) based on existing peak hour volumes and existing intersection configurations.

- Scenario 2: *Existing Plus Project* – Existing traffic volumes plus trips from the proposed project.

- Scenario 3: *Baseline (No Project) Conditions* – The Baseline (Year 2022) scenario is based on the existing volumes plus growth in background traffic (accounting for Covid traffic conditions) plus the traffic from all reasonably foreseeable developments that could substantially affect the volumes at the project study intersections. For this analysis it was conservatively assumed traffic would return to at least 95% of pre-covid levels by 2022.

- Scenario 4: *Baseline Plus Project Conditions* – This scenario is based on the Baseline traffic volumes plus the trips from the proposed project.

3.3 Existing Roadway Network

As discussed previously, the project location and the surrounding roadway network are illustrated in **Figure 1**. The following is a more detailed description of the arterials that could be affected by the project:

- **San Pablo Avenue -** San Pablo Avenue is a four-lane arterial that provides north-south access in the project vicinity, and runs through the ConocoPhillips Refinery. San Pablo Avenue connects with I-80 via the Cummings Skyway interchange north of the project site and in Crockett. The speed limit on San Pablo Avenue in the project study area is 45 mph.

- **Cummings Skyway** - The Cummings Skyway is a two-lane arterial road extending from San Pablo Avenue west of I-80 to a connection with SR 4 located between Hercules and Martinez. The Cumming Skyway intersection at San Pablo Avenue is signalized and the intersections at the I-80 ramps are controlled with stops signs. The speed limit on the Cummings Skyway is 40 mph.

- **Parker Avenue -** Parker Avenue is a two-lane divided roadway that connects San Pablo Avenue to Willow Avenue, providing access to the Willow Avenue interchange with I-80 to the south of the project site. The speed limit on Parker Avenue is 30 mph.

- **Willow Avenue** - Willow Avenue is a four-lane road running in a northwest-southeast direction. The street connects extends from Seventh Avenue to connect with San Pablo Avenue and the I-80 interchange. From San Pablo Avenue, Willow Avenue continues through northern Hercules before crossing State Route 4 and terminating at Sycamore Avenue. The speed limit on Willow Avenue is 40 mph.

3.4 Intersection Analysis Methodology

Existing operational conditions at the eight (8) study intersections have been evaluated according to the requirements set forth by the Contra Costa County Transportation Authority (CCTA) using the methodology set forth in the Final Technical Procedures Update (dated January 16, 2013). Analysis of traffic operations was conducted using the 6th Edition of the *Highway Capacity Manual* (*HCM*) Level of Service (LOS) methodology with Synchro software.[2] Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time.

The level of service scale describes traffic flow with six ratings ranging from A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams. As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience deteriorate as the capacity of the intersection is reached. Under such conditions relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled level of service (LOS) E. Beyond LOS E, the intersection or roadway segment capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it.

For signalized intersections, The *HCM* methodology determines the capacity of each lane group approaching the intersection. The LOS is then based on average control delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average control delay and LOS are presented for the intersection. A summary of the HCM results and copies of the detailed HCM LOS calculations are included in the appendix to this report. **Table 1** summarizes the relationship between LOS, average control delay, and the volume to capacity ratio at signalized intersections.

For unsignalized (all-way stop controlled and two-way stop controlled) intersections, the average control delay and LOS operating conditions are calculated by approach (e.g., northbound) and movement (e.g., northbound left-turn) for those movements that are subject to delay. In general, the operating conditions for unsignalized intersections are presented for the worst approach. **Table 2** summarizes the relationship between LOS and average control delay at unsignalized intersections.

[2] *Highway Capacity Manual – Sixth Edition*, Transportation Research Board, Washington D.C., 2016.

TABLE 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (sec/veh)	Volume to Capacity Ratio
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10	< 0.60
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20	> 0.61 to 0.70
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35	> 0.71 to 0.80
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55	> 0.81 to 0.90
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80	> 0.91 to 1.00
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80	> 1.00

SOURCES: 2010 *Highway Capacity Manual*, Transportation Research Board, 2011. *Technical Procedures Update,* Contra Costa Transportation Authority, January 16, 2013.

TABLE 2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (seconds/vehicle)
A	No delay for stop-controlled approaches.	0 to 10
B	Operations with minor delays.	> 10 to 15
C	Operations with moderate delays.	> 15 to 25
D	Operations with some delays.	> 25 to 35
E	Operations with high delays and long queues.	> 35 to 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

SOURCE: 2010 *Highway Capacity Manual*, Transportation Research Board, 2011.

3.5 Existing Conditions Traffic Operations Analysis (Scenario 1)

The existing intersection geometry at each of the project study intersections can be seen in **Figure 3** and the existing traffic volumes at each are presented in **Figure 4.** Traffic counts at the study intersections were conducted in March and April of 2021. **Table 3** summarizes the associated LOS computation results for the existing weekday AM and PM peak hour conditions. Please note that the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix.* As shown in **Table 3**, according to County standards all study intersections currently have acceptable conditions during the weekday AM and PM peak hours.

TABLE 3
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	EXISTING	
				Delay	LOS
1	SAN PABLO AVENUE & REFINERY ROAD	Signalized	AM	7.7	A
			PM	8.7	A
2	SAN PABLO AVENUE & CUMMINGS SKYWAY	Signalized	AM	8.5	A
			PM	8.7	A
3	I-80 WESTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	10.7	B
			PM	11.0	B
4	I-80 EASTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	7.7	A
			PM	8.8	A
5	FOUTH STREET & PARKER AVENUE	Signalized	AM	12.5	B
			PM	22.7	C
6	SAN PABLO AVENUE & WILLOW AVENUE	Signalized	AM	8.3	A
			PM	8.5	A
7	I-80 WESTBOUND OFFRAMP & WILLOW AVENUE	Signalized	AM	5.4	A
			PM	4.9	A
8	I-80 EASTBOUND RAMPS & WILLOW AVENUE	Signalized	AM	18.3	B
			PM	24.1	C

SOURCE: Abrams Associates, 2021

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop-controlled intersections the results for the worst side street approach are presented.

3.6 Pedestrian and Bicycle Facilities

Bicycle paths, lanes and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following three classes:

Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.

Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.

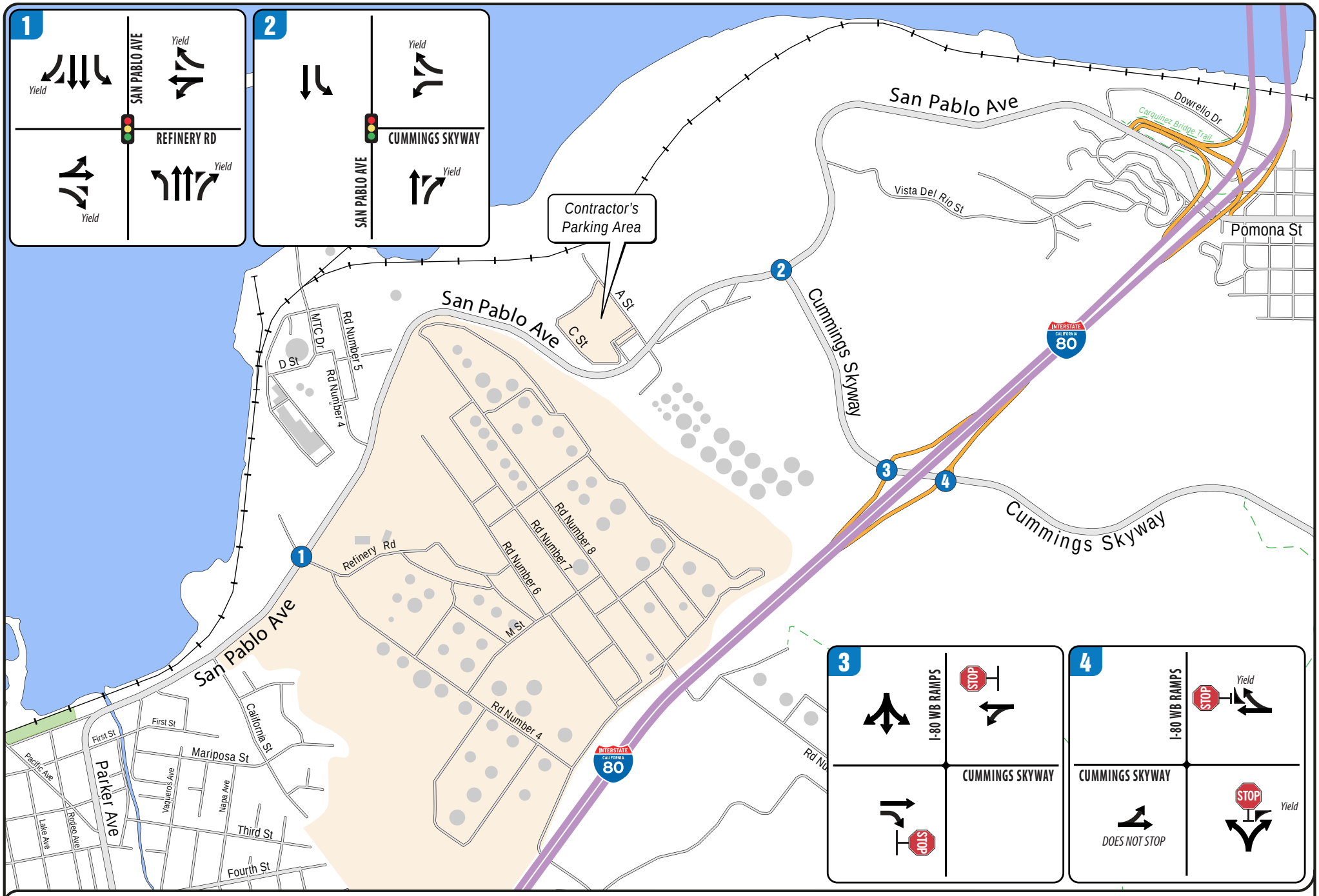

FIGURE 3A | EXISTING LANE CONFIGURATION
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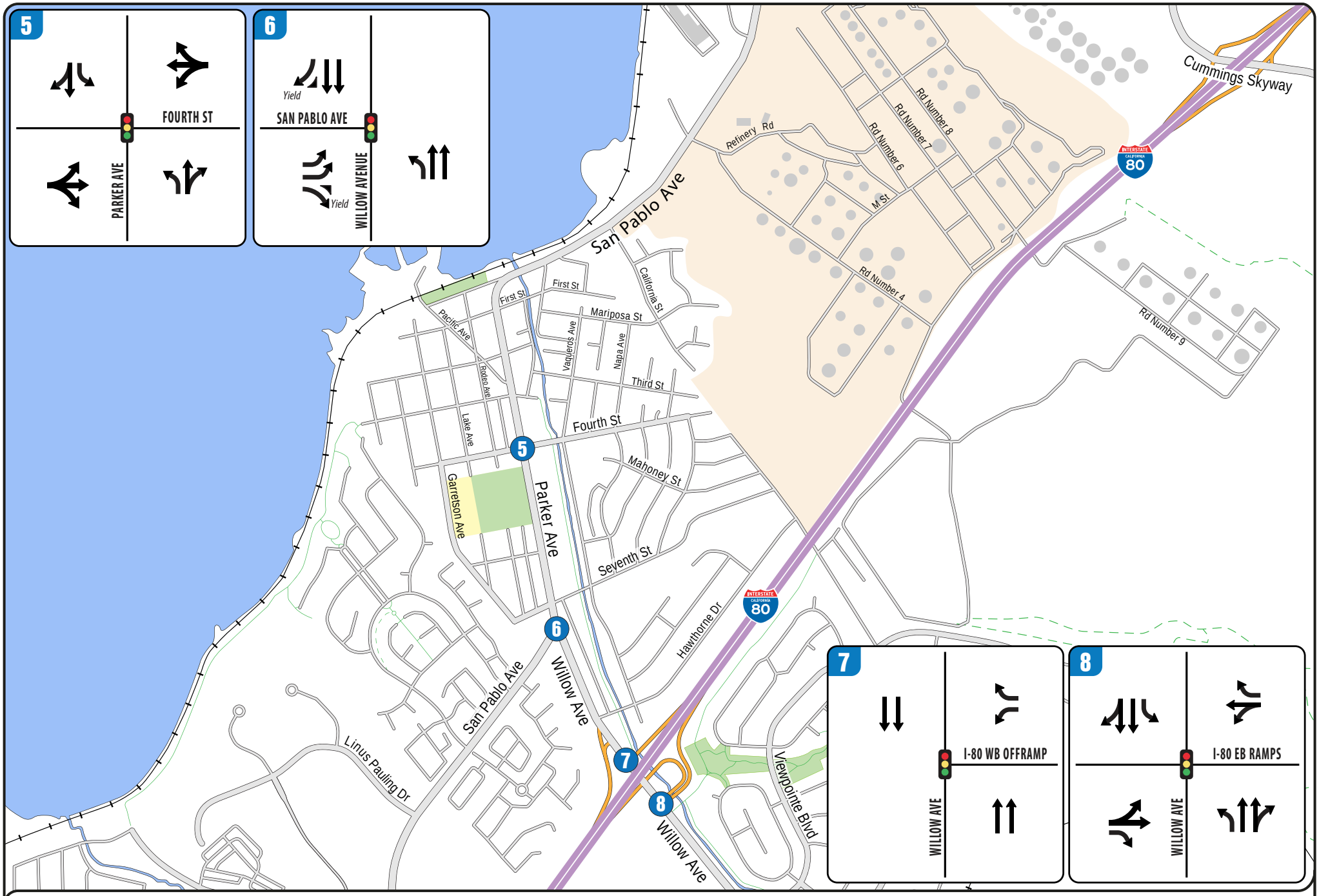

FIGURE 3B | EXISTING LANE CONFIGURATION
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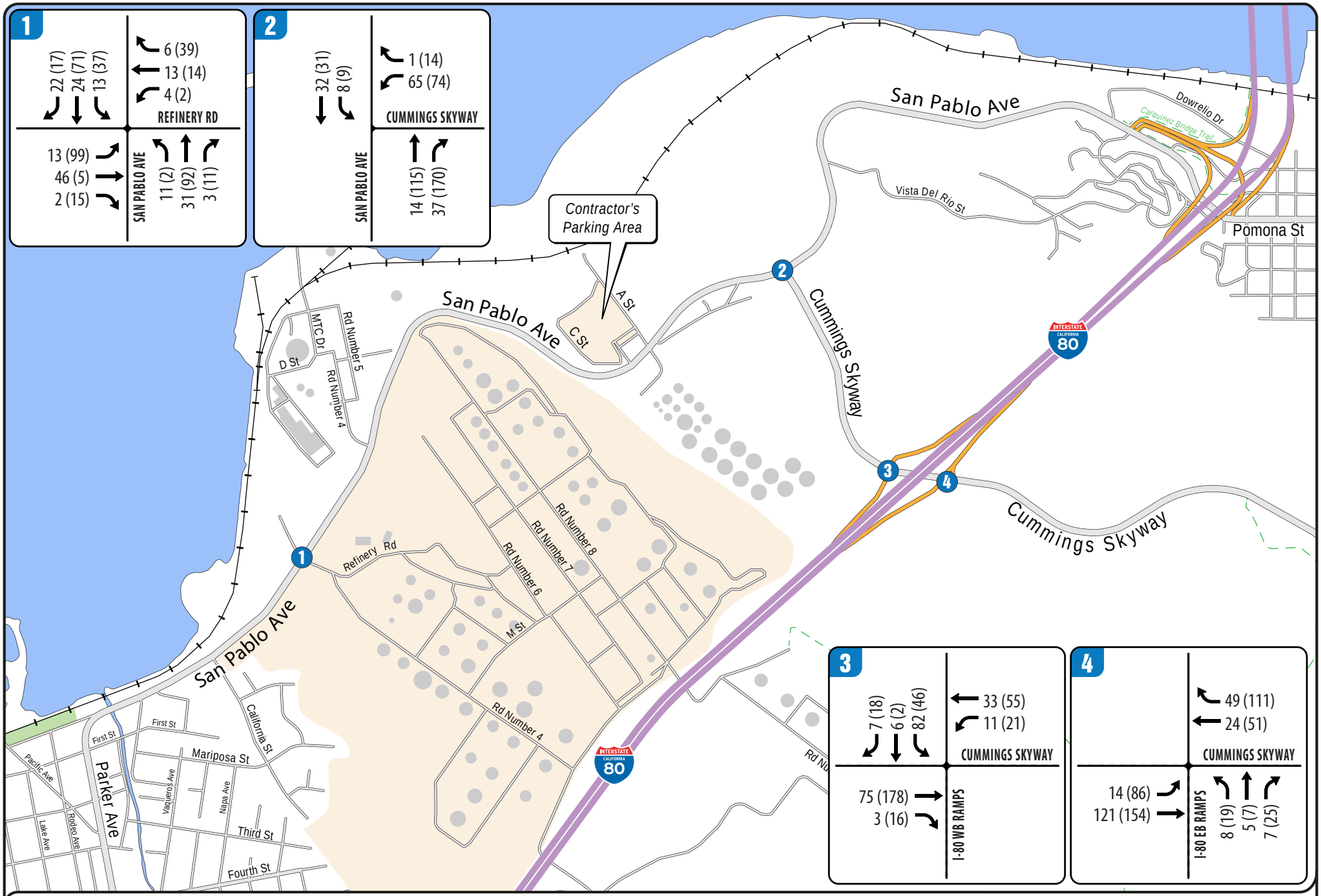

FIGURE 4A | EXISTING AM(PM) PEAK HOUR TRAFFIC VOLUMES
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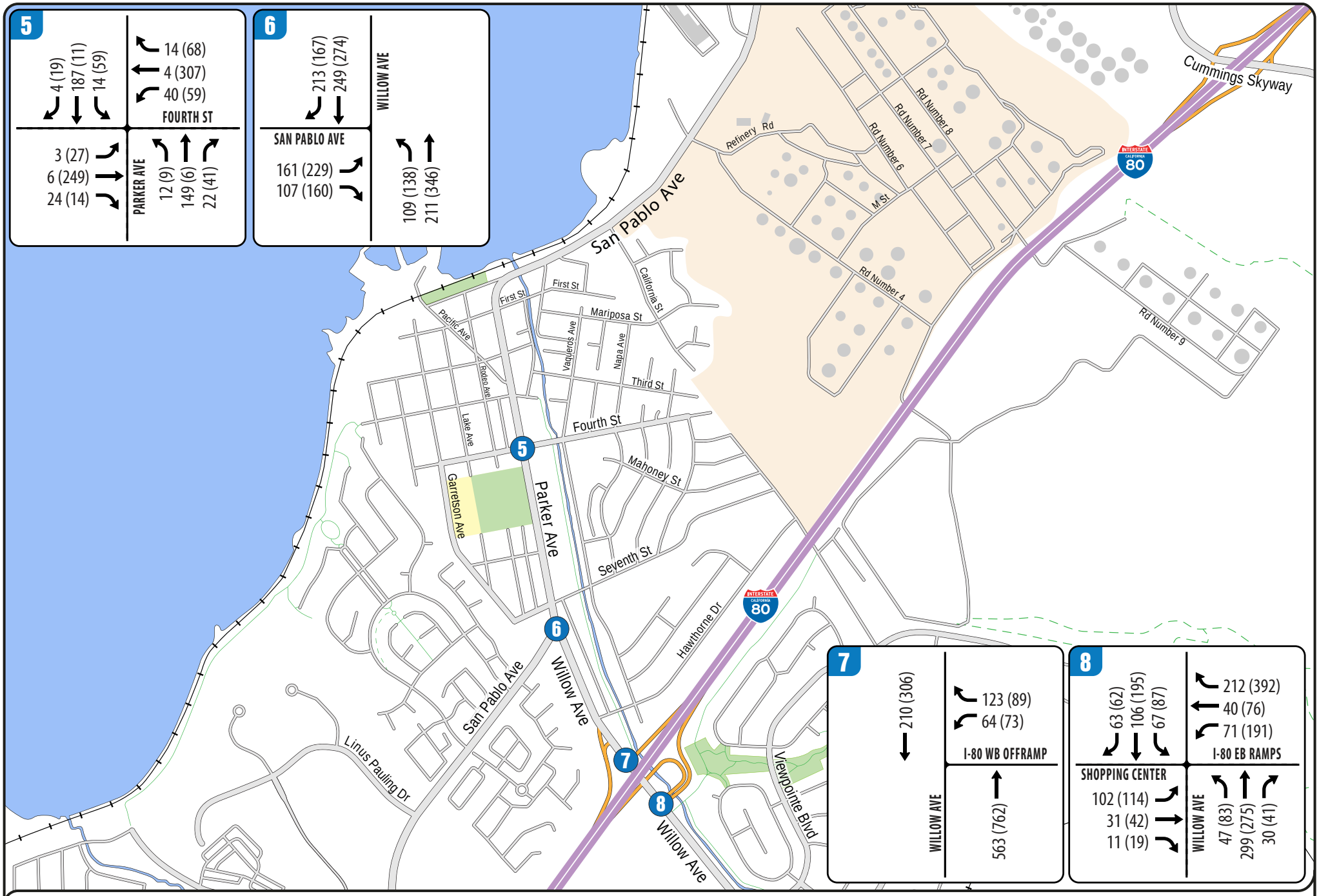

FIGURE 4B | EXISTING AM(PM) PEAK HOUR TRAFFIC VOLUMES
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Class III – Provides a route designated by signs or permanent markings and shared with pedestrians and motorists.

Class IV – Provides an adjacent bike lane or bikeway that is physically separated from motor vehicle traffic.

Figure 5 presents the existing bicycle and pedestrian facilities within the project study area. In the immediate project vicinity, there are no sidewalks or bicycle lanes on San Pablo Avenue. The Cumming Skyway has bicycle lanes but no sidewalk. Parker Avenue and Willow Avenue have bicycle lanes and sidewalks in most areas. There are also marked crosswalks, pedestrian push buttons, and pedestrian signals provided at all nearby signalized intersections. There are also some Class I trails in the area, including the Rodeo Creek Trail and a section of the San Francisco Bay Trail to the south of Rodeo that starts at the west end of Third Street.

3.7 Transit Service

Two major public transit operators provide service within or adjacent to the study area. These include BART and Westcat. These operators are described below.

Bay Area Rapid Transit (BART) – BART is a rapid mass transit system which provides regional transportation connections to much of the Bay Area. It runs from the North Bay Area in Richmond to the South Bay Area in Fremont. In the east-west direction it runs from Bay Point to the San Francisco Airport and Millbrae with several connections in Oakland. The Richmond BART station, which is located about nine miles from the proposed project, serves Richmond other surrounding cities and has trains running with approximately 30-minute headways between 5:00 a.m. and 9:00 p.m.

WestCAT- WestCAT is a service of the Western Contra Costa Transit Authority, providing local, express, and regional service to the cities of Pinole and Hercules, and the unincorporated communities of Montalvin Manor, Tara Hills, Bayview, Rodeo, Crockett, and Port Costa. Westcat Route 11 provide service on San Pablo Avenue and Parker Avenue in the study area. On Willow Avenue Routes J, 11, 15, and the LYNX route operate. The nearest bus stops are located adjacent to the refinery entrance and also the contractors parking area on San Pablo Avenue. Route 11 operates Monday through Friday with approximately 45 to 60-minute headways between about 6:30 a.m. and 9:30 p.m.

FIGURE 5A | BICYCLE AND PEDESTRIAN FACILITIES
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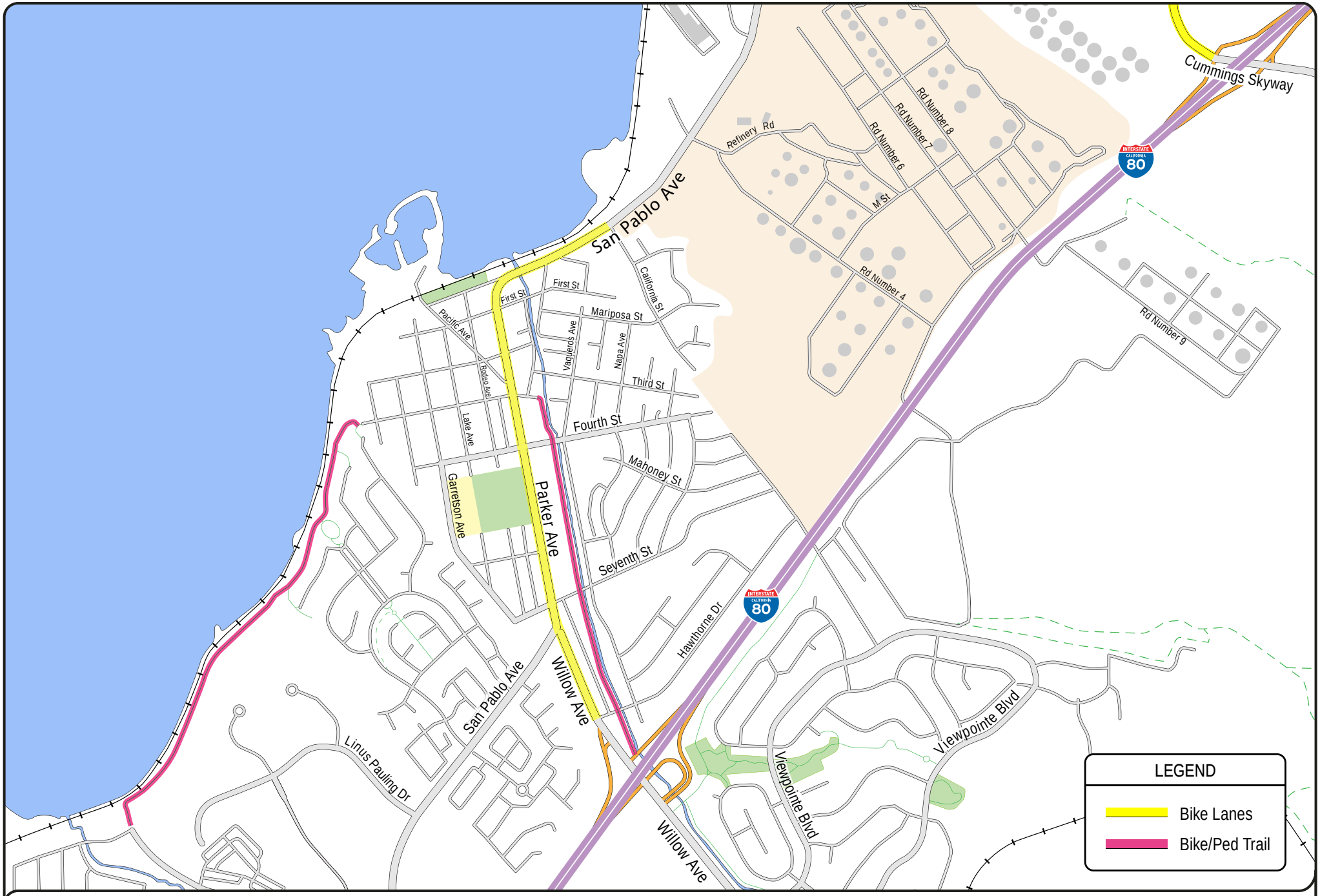

FIGURE 5B | BICYCLE AND PEDESTRIAN FACILITIES
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4) REGULATORY CONTEXT

Existing policies, laws and regulations that apply to the proposed project are summarized below.

4.1 State

The California Department of Transportation (Caltrans) has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, such as SR 24. Any improvements to these roadways would require Caltrans' approval. The Guide for the Preparation of Traffic Impact Studies provides consistent guidance for Caltrans staff who review local development and land use change proposals. The Guide also informs local agencies about the information needed for Caltrans to analyze the traffic impacts to state highway facilities which include freeway segments, on- or off-ramps, and signalized intersections.

4.2 Local

Contra Costa Countywide Comprehensive Transportation Plan Update (2017) - The transportation policies that are currently applicable within Contra Costa County are based on the Contra Costa County Comprehensive Transportation Plan. This document identifies the criteria for analyzing transportation impacts and sets forth plans for future roadway improvements in the county.

Contra Costa General Plan - The Transportation and Circulation Element included in the Contra Costa County General Plan was prepared pursuant to Section 65302(b) of the California Government Code. The Transportation and Circulation Element addresses the location and extent of existing and planned transportation routes, terminals, and other local public utilities and facilities. The General Plan identifies roadway and transit goals and policies that have been adopted to ensure that the transportation system of the County will have adequate capacity to serve planned growth. These goals and policies are intended to provide a plan and implementation measures for an integrated, multi-modal transportation system that will safely and efficiently meet the transportation needs of all economic and social segments of the County.

4.3 Level-of-Service Analysis Criteria

The goal of the Contra Costa is to maintain Level of Service (LOS) D during the peak hours except on routes of regional significance and in Priority Development Areas (PDA's) where the goal is to maintain LOS E. In the project study area San Pablo Avenue, Parker Avenue, and the Cummings Skyway are designated as routes of regional significance.

Signalized Intersections - Project-related operational effects on the County's signalized study intersections are considered to result in substantial adverse effects if project-related traffic causes the Level of Service (LOS) rating to deteriorate from LOS D or better to LOS E or F, or

from LOS E to LOS F on routes of regional significance. If a signalized intersection(s) is operating unacceptably before the addition of project trips, it would be considered a substantial adverse effect if the project increases the average control delay at the intersection by more than 5.0 seconds.

Unsignalized Intersections - Project-related operational effects on unsignalized intersections are considered to result in substantial adverse effects if project generated traffic causes the LOS at an unsignalized intersection to degrade to worse than LOS D, or from LOS E to LOS F on routes of regional significance. As with signalized intersections, if an intersection(s) is operating unacceptably before the addition of project trips, it would be considered a substantial adverse effect if the project increases the average control delay (for all-way stop controlled intersections) or worst movement/approach delay (for side street stop-controlled intersections) at the intersection by more than 5.0 seconds.

In addition, according to CEQA guidelines and the County's Transportation Analysis Guidelines, a project would have a significant impact if it would:

- Conflict with a plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).
- Result in inadequate emergency vehicle access.

5) POTENTIAL ADVERSE EFFECTS AND MITIGATION MEASURES

5.1 Long Term Operations and Construction Trip Generation Forecasts

As noted previously, the existing refinery is designed and operated to refine a variety of domestic and foreign crude oils, received by pipeline and tanker vessel, into a wide range of products including gasoline and diesel fuels and other fuel gases for industrial applications. The Rodeo Renewed Project would transform the existing Rodeo Refinery into a facility that would process renewable feedstocks into renewable diesel fuel and other transportation fuels. For purposes of determining the reasonable worst-case adverse effects of traffic on the surrounding street network from a proposed project, the trips generated by this proposed development are estimated for the peak commute hours which represent the peak of "*adjacent street traffic*". This is the time period when the project traffic would generally contribute to the greatest amount of congestion.

Long Term Operations Project Trip Generation - Based on information provided by Phillips 66 the operations of the proposed Rodeo Renewed Project would not result in any increases to the total employment at the Rodeo Refinery. Truck traffic related to the transport of petroleum coke to and from the Carbon Plant Site would no longer occur. As a result, annual truck round trips generated by the refinery would be significantly reduced and there would also be an associated reduction to the daily truck traffic generated by the Rodeo Refinery. The result of the changes to the Rodeo Refinery ends up being a forecast net reduction of about 66 daily trucks per day accessing the refinery, with the remaining 44 trucks per day using the same truck route to the site. This is based on the forecast average trucks per day once the project is complete versus an average of 110 trucks per day during regular operations in 2019. In addition, the Project does not add additional employees to the workforce or additional office space, and therefore there would be no increase to employee trips expected. The long-term trip generation would also not be expected to increase due to the fact that the Rodeo Refinery's renewable products would be primarily shipped from the facility by tanker vessel and pipeline. Because the resulting operational traffic would be a reduction in comparison to the baseline traffic volumes, no further analysis of traffic operations was conducted for the long-term operations of the project.

Construction Trip Generation – The proposed Rodeo Renewed Project would result in truck and employee traffic to and from the Rodeo Site during construction and a detailed analysis of potential adverse effects on the roadways used to access the Rodeo Refinery was prepared. The peak period construction traffic forecasts (when peak phases overlap) are presented in **Table 4**. As seen in this table construction of the project could employ up to 500 workers at its peak and during this period the hauling of materials could be up to 10 trucks per day (each with one trip in and one trip out). With an estimate of approximately 30 vehicles per day from vendors, deliveries, and other visitors the project is forecast to generate up to a maximum of 1,080 vehicles per day during the peak phase of construction.

The peak phase for traffic generation is expected to occur for approximately 4 months out of the 15-month construction period. As seen in **Table 4**, with adjustments to convert the trucks into the equivalent number of passenger car trips the project is forecast to generate up to 552 trips during the AM and PM peak hours. For the Synchro operational analysis the peak hour trips (without PCE adjustments) were used and the resulting AM and PM peak hour trip generation assumptions are shown in **Table 5**. The resulting trip generation at the project study intersection is presented in **Figure 6**.

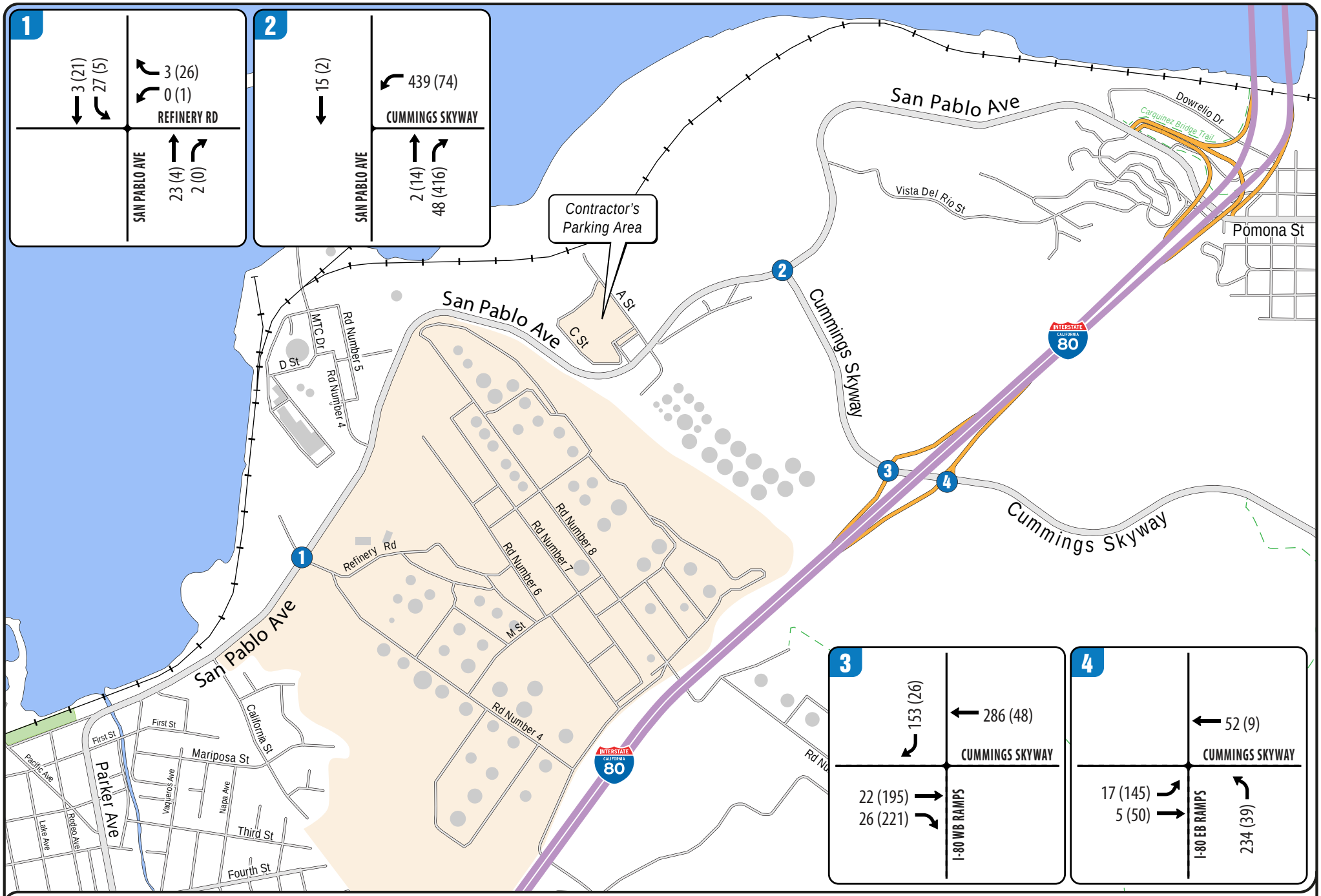

FIGURE 6A | PROJECT AM(PM) PEAK HOUR TRIPS
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Phillips 66 Rodeo Renewed Project
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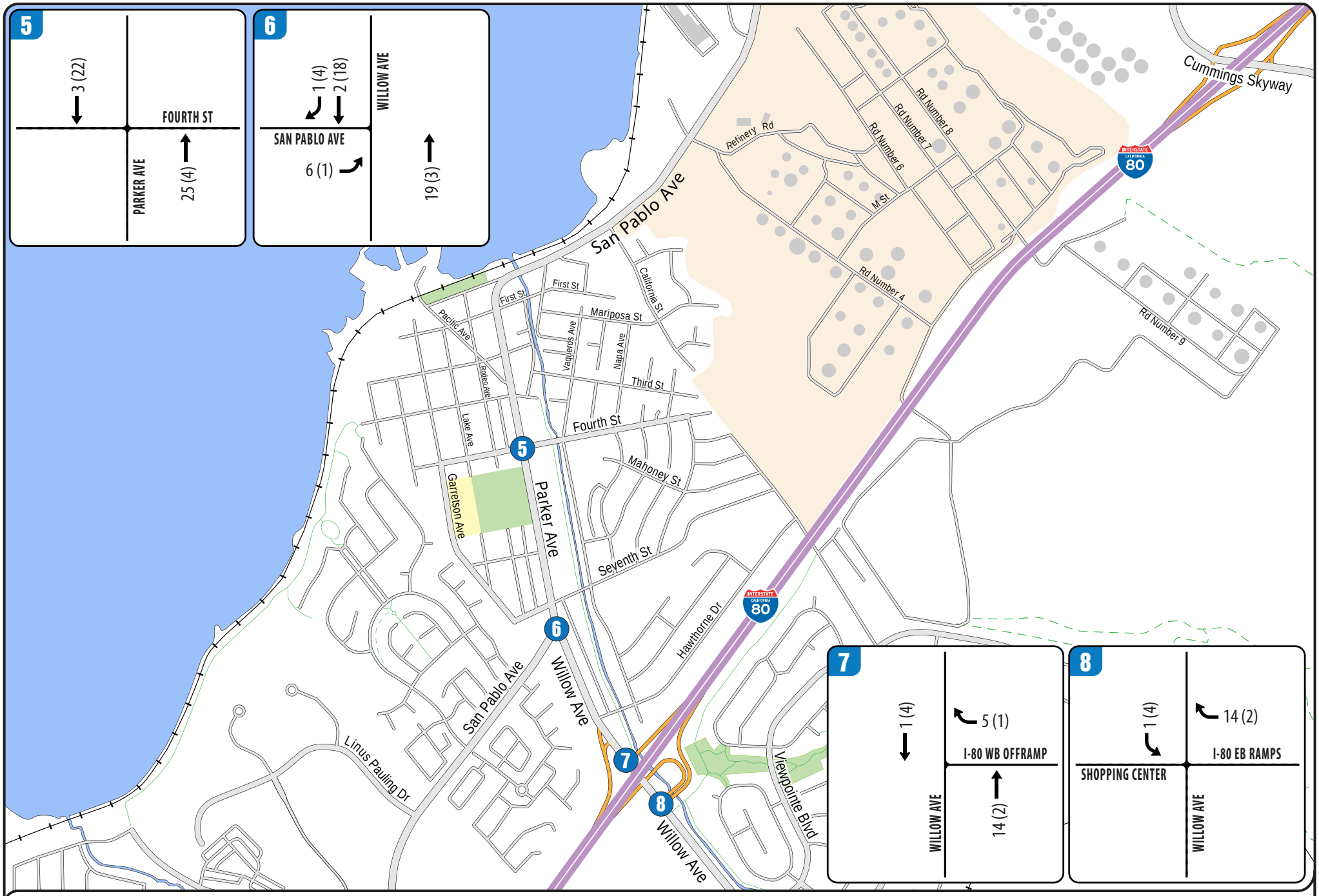

FIGURE 6B | PROJECT AM(PM) PEAK HOUR TRIPS
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Phillips 66 Rodeo Renewed Project
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TABLE 4
PEAK PERIOD CONTRUCTION TRAFFIC TRIP GENERATION CALCULATIONS

Trip Generation Component	Daily Vehicle Trips	PCE Rate[2]	PCE Daily Trips	PCE Peak Hour Trips[3]
Workers	1,000	1.0	1,000	500
Hauling Trucks	20	2.0	40	4
Vendors/Other Vehicles[1]	60	1.6	96	48
Totals	*1,080*		*1,136*	552

Notes: [1] Vendors and other vehicles are expected to include a mix of pickup trucks, buses, and 18-wheeler trucks.
[2] The Passenger Car Equivalent (PCE) assumption for trucks is based on recommendations in the Highway Capacity Manual and assumes that a portion of the project generated trucks would be empty.
[3] Based on the Mitigation Monitoring Program Reports for previous projects at the refinery, 50% of the employee trips are assumed to occur during the peak commute hour. Hauling trucks would be restricted from arriving or leaving during the peak commute periods but 10% are assumed to occur the peak hour. 50% of the trips associated with vendors and other vehicles were assumed to occur during the peak commute hour.

TABLE 5
PROJECT PEAK HOUR CONSTRUCTION VEHICLE TRIP GENERATION

Project Component	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Construction Trip Generation	479	53	532	80	452	532

SOURCE: Abrams Associates, 2021

5.2 Construction Traffic Trip Distribution

The trip distribution assumptions have been based on the project's proximity to freeway interchanges, the existing directional split at nearby intersections, and the overall land use patterns in the area as determined from the Countywide Travel Demand Model. Based on previous mitigation monitoring reports and the proposed employee and truck traffic restrictions (i.e. requiring them to use the Cummings Skyway) the resulting trip distribution assumed 92% of project traffic would use the Cummings Skyway to access the site with another 5% assumed to use Parker Avenue and 3% were assumed to use San Pablo Avenue to and from Crockett to the north.

5.3 Existing Plus Construction Traffic Operations Analysis (Scenario 2)

This scenario evaluates the existing conditions with the addition of traffic from the proposed project. The traffic volumes for each of the study intersections for the Existing Plus Project scenario are shown in **Figure 7**. The capacity calculations for the Existing Plus Project scenario are shown in **Table 6**. The corresponding LOS analysis calculation sheets are presented in the Traffic Analysis Appendix. As shown in **Table 6**, all of the existing project study intersections currently have acceptable operations during the weekday AM and PM peak hours.

TABLE 6
EXISTING PLUS CONSTRUCTION TRAFFIC INTERSECTION LEVEL OF SERVICE CONDITIONS

	INTERSECTION	CONTROL	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	SAN PABLO AVENUE & REFINERY ROAD	Signalized	AM	7.7	A	8.2	A
			PM	8.7	A	8.9	A
2	SAN PABLO AVENUE & CUMMINGS SKYWAY	Signalized	AM	8.5	A	8.9	A
			PM	8.7	A	9.5	A
3	I-80 WESTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	10.7	B	22.2	C
			PM	11.0	B	14.2	B
4	I-80 EASTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	7.7	A	10.0	A
			PM	8.8	A	12.3	B
5	FOUTH STREET & PARKER AVENUE	Signalized	AM	12.5	B	12.4	B
			PM	22.7	C	23.1	C
6	SAN PABLO AVENUE & WILLOW AVENUE	Signalized	AM	8.3	A	8.2	A
			PM	8.5	A	8.6	A
7	I-80 WESTBOUND OFFRAMP & WILLOW AVENUE	Signalized	AM	5.4	A	5.4	A
			PM	4.9	A	5.0	A
8	I-80 EASTBOUND RAMPS & WILLOW AVENUE	Signalized	AM	18.3	B	18.6	B
			PM	24.1	C	24.5	C

SOURCE: Abrams Associates, 2021

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop-controlled intersections the results for the worst side street approach are presented.

5.4 Baseline Traffic Operations Analysis (Scenario 3)

The Baseline scenario evaluates the existing conditions with the addition of traffic from reasonably foreseeable projects in the area and general baseline growth in traffic. For this analysis the baseline volumes were developed based on the assumption that the project completion and full occupancy date would be 2022 with a conservative assumption that the traffic volumes in the study area will have returned to 95% of pre-covid levels. Based on forecasts of the share of the work force that would work from home in the future (i.e. Post-Covid) the future share is forecast to be 10% (versus a 5% share Pre-Covid).[3] Based on the traffic volumes on Bay Area freeways, as reported by the Metropolitan Transportation

[3] *What a Transportation Professional Needs to Know about Counts and Studies During a Pandemic*, Institute of Transportation Engineers, Washington D.C., June, 2020.

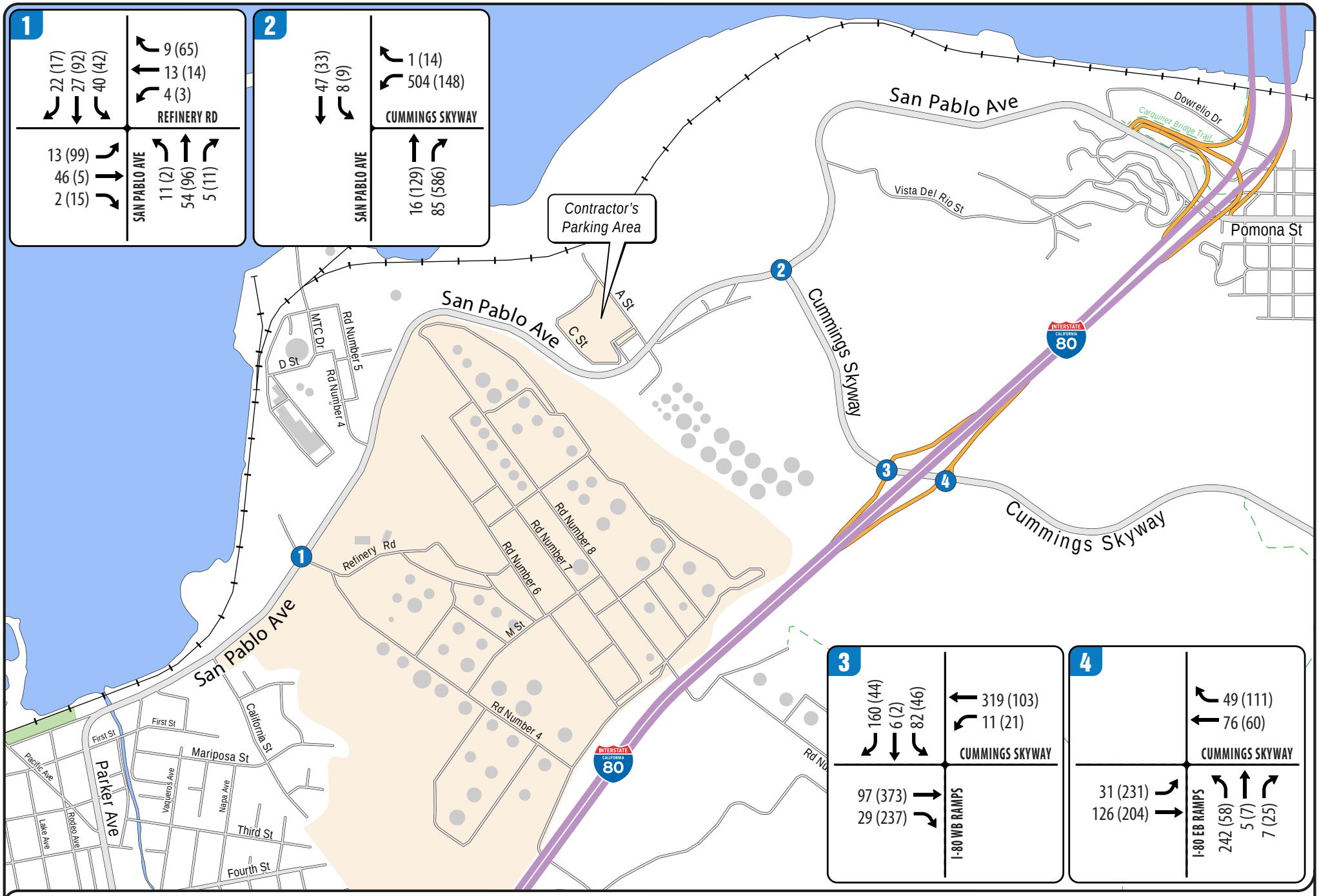

FIGURE 7A | EXISTING PLUS PROJECT AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

Abrams Associates
TRAFFIC ENGINEERING, INC.

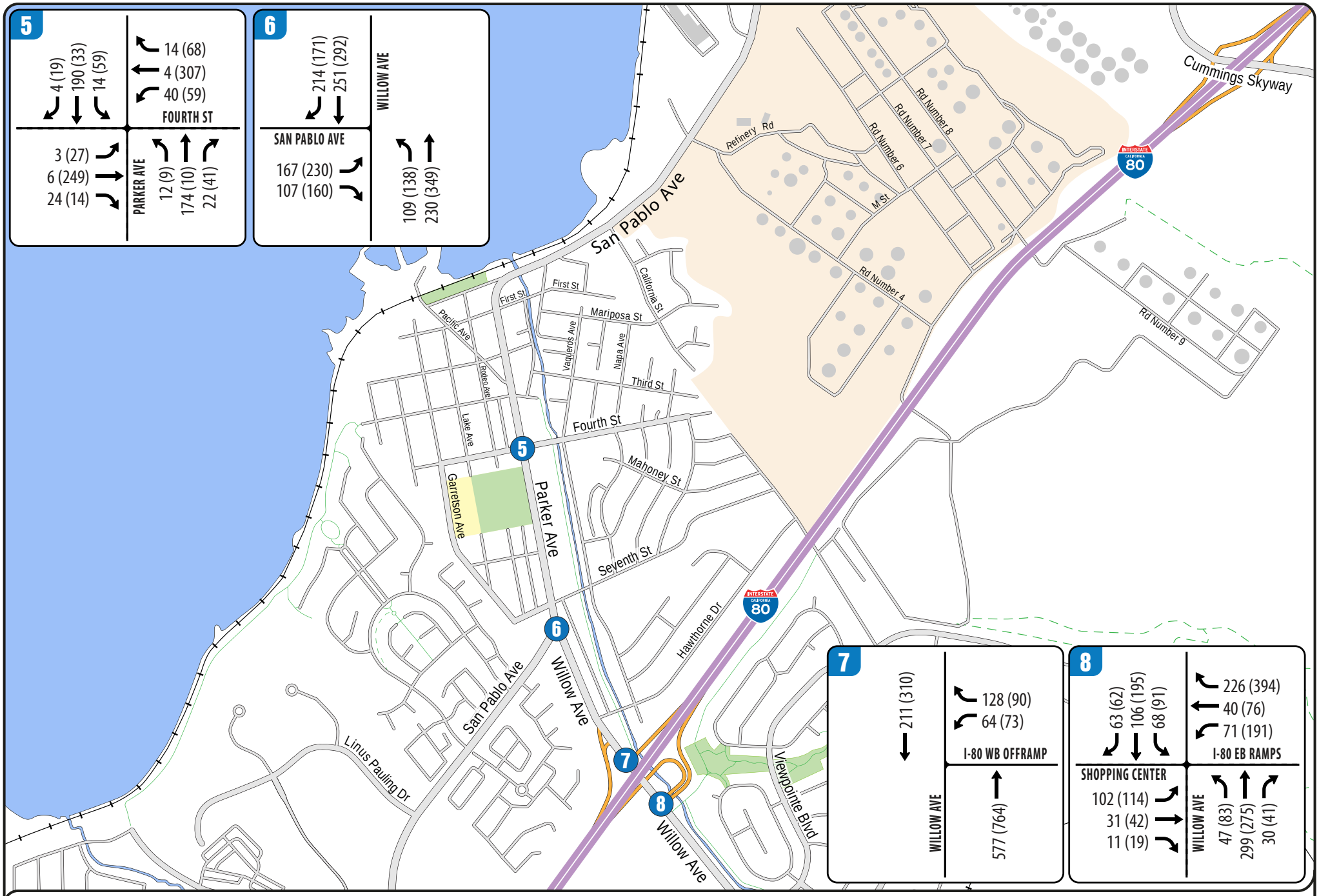

FIGURE 7B | EXISTING PLUS PROJECT AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

Abrams Associates
TRAFFIC ENGINEERING, INC.

Commission (MTC), and a comparison to pre-covid traffic counts at the study intersections it was determined that traffic volumes in the study area were close to 90% of pre-covid levels.[4] However, to be conservative a 20% increase was applied to the traffic counts taken in March and April of 2021. The traffic volumes for each of the study intersections for the Baseline (2022) scenario are shown in **Figure 8**. **Table 7** summarizes the associated LOS computation results for the Baseline weekday AM and PM peak hour conditions.

5.5 Baseline Plus Construction Traffic Operations Analysis (Scenario 4)

The Baseline plus proposed project traffic forecasts were developed by adding traffic from proposed project to the baseline traffic volumes. The traffic volumes for each of the study intersections for the Baseline Plus Project scenario are shown in **Figure 9**. **Table 7** summarizes the LOS results for the Baseline and Baseline Plus Project weekday AM and PM peak hour conditions. The corresponding LOS analysis calculation sheets are presented in the appendix. As shown in **Table 7**, all of the study intersections would continue to have acceptable conditions (LOS D or better) under the Baseline Plus Project scenario during the weekday AM and PM peak hours.

TABLE 7
BASELINE PLUS CONSTRUCTION TRAFFIC INTERSECTION LEVEL OF SERVICE CONDITIONS

	INTERSECTION	CONTROL	PEAK HOUR	BASELINE		BASELINE PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	SAN PABLO AVENUE & REFINERY ROAD	Signalized	AM	7.7	A	8.3	A
			PM	8.7	A	9.2	A
2	SAN PABLO AVENUE & CUMMINGS SKYWAY	Signalized	AM	8.5	A	9.1	A
			PM	8.7	A	9.7	A
3	I-80 WESTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	10.7	B	25.7	D
			PM	11.0	B	16.2	C
4	I-80 EASTBOUND RAMPS & CUMMINGS SKYWAY	Side Street Stop	AM	7.7	A	10.3	B
			PM	8.8	A	14.0	B
5	FOUTH STREET & PARKER AVENUE	Signalized	AM	12.5	B	12.8	B
			PM	22.7	C	31.4	C
6	SAN PABLO AVENUE & WILLOW AVENUE	Signalized	AM	8.3	A	8.7	A
			PM	8.5	A	9.3	A
7	I-80 WESTBOUND OFFRAMP & WILLOW AVENUE	Signalized	AM	5.4	A	5.8	A
			PM	4.9	A	5.2	A
8	I-80 EASTBOUND RAMPS & WILLOW AVENUE	Signalized	AM	18.3	B	21.3	C
			PM	24.3	C	32.6	C

SOURCE: Abrams Associates, 2021

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop-controlled intersections the results for the worst side street approach are presented.

[4] *Toll Bridge Traffic Nears 90 Percent of Pre-COVID Levels*, Metropolitan Transportation Commission, Oakland, CA, June 15, 2021.

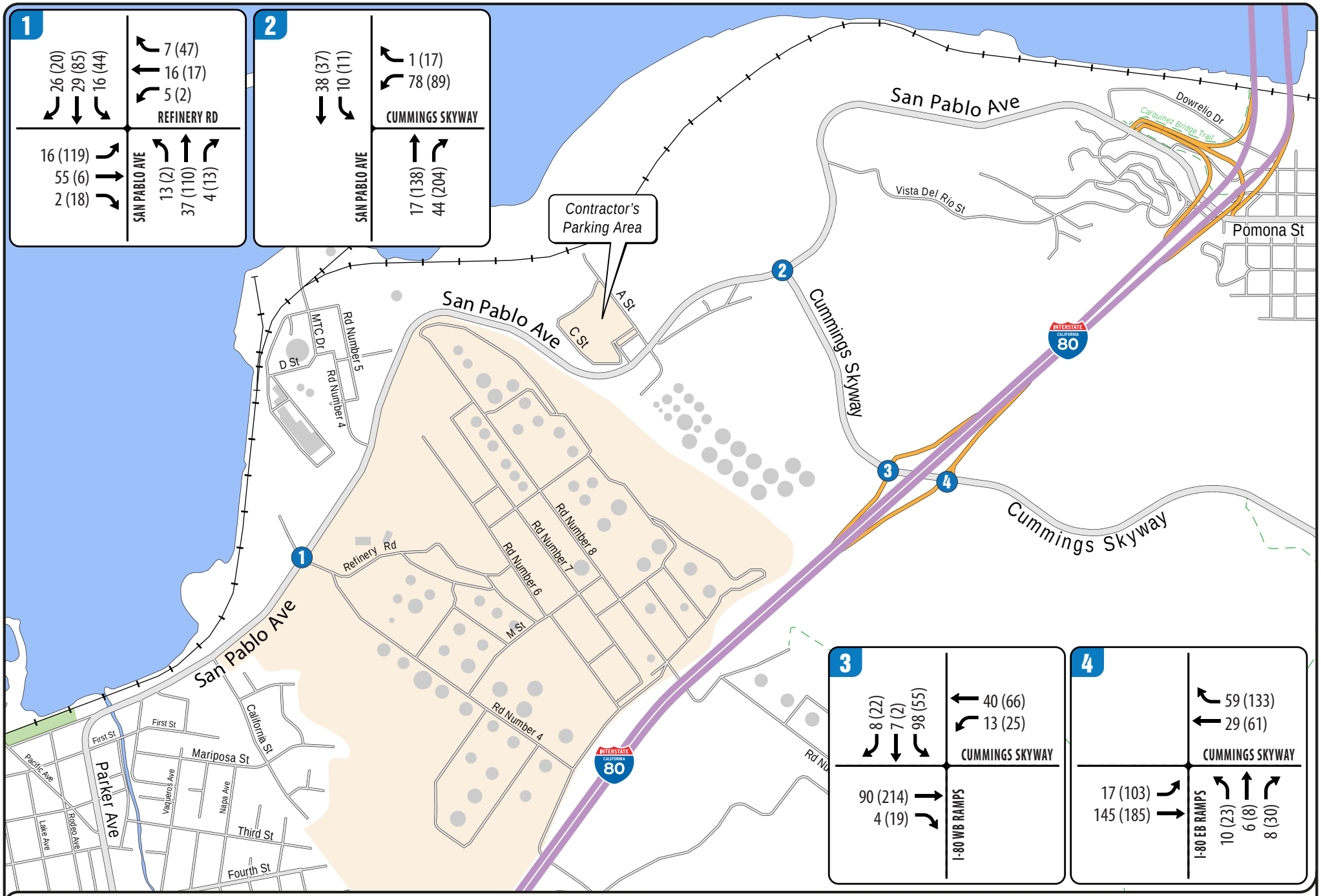

FIGURE 8A | BASELINE AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

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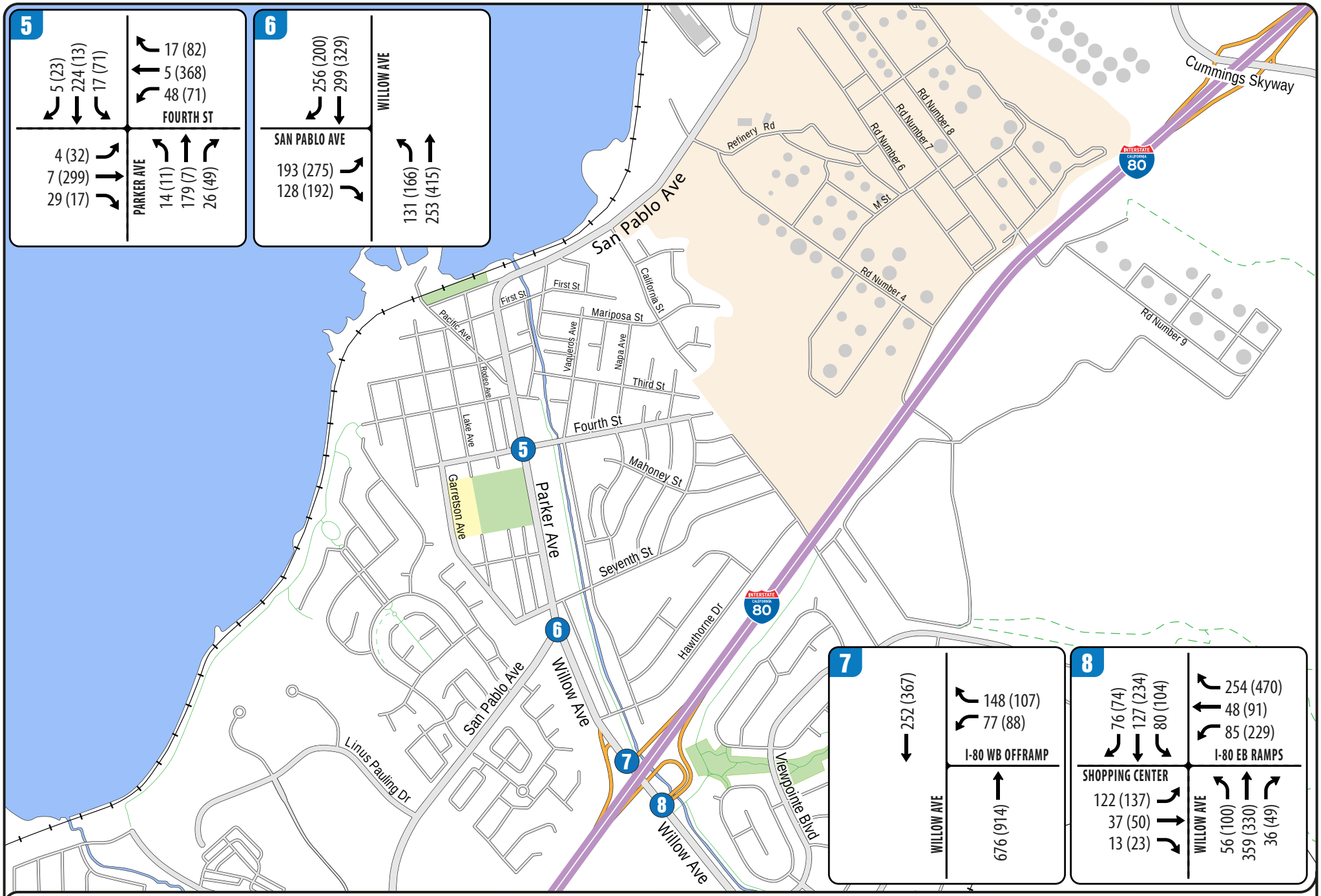

FIGURE 8B | BASELINE AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

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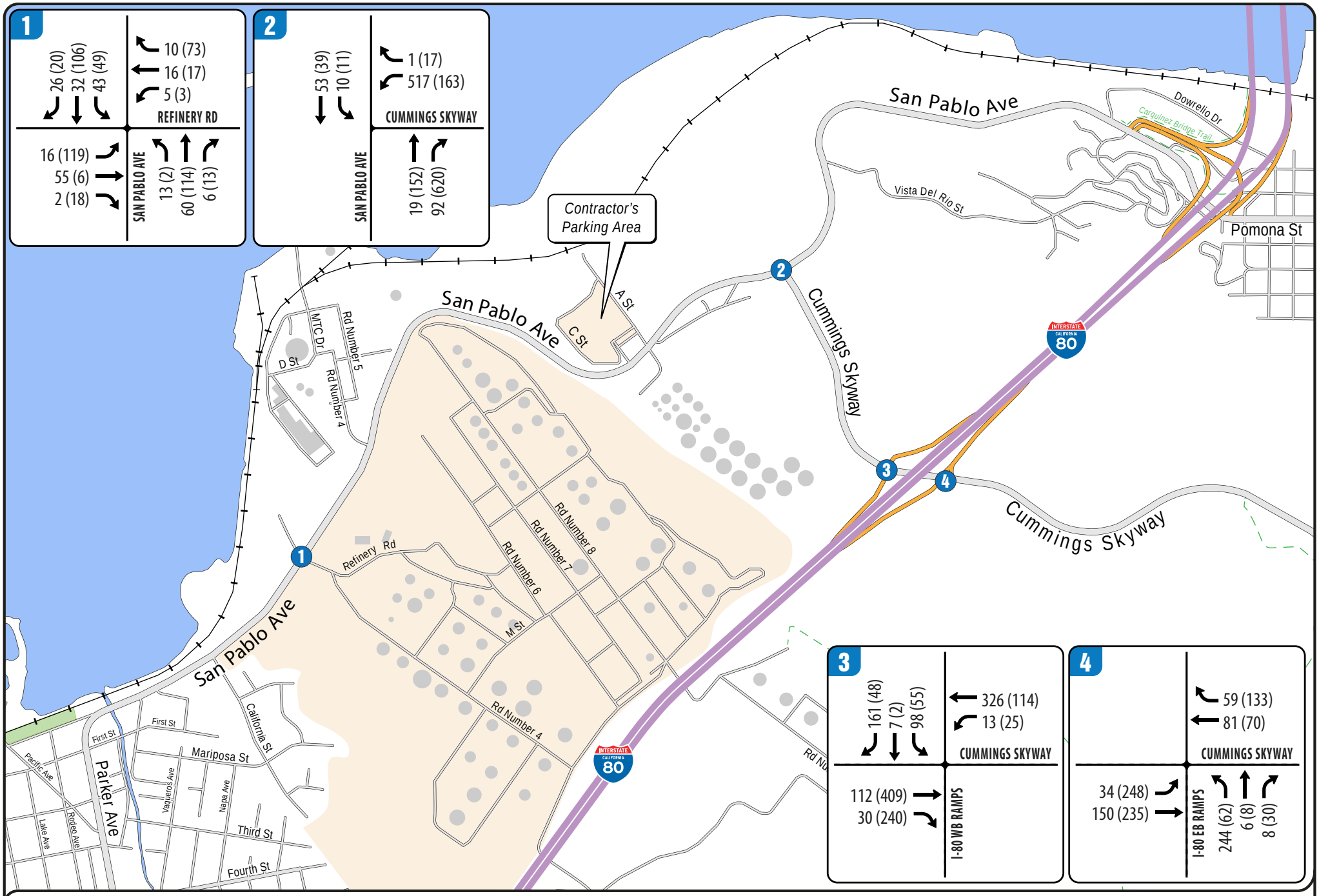

FIGURE 9A | BASELINE PLUS PROJECT AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

Abrams Associates
TRAFFIC ENGINEERING, INC.

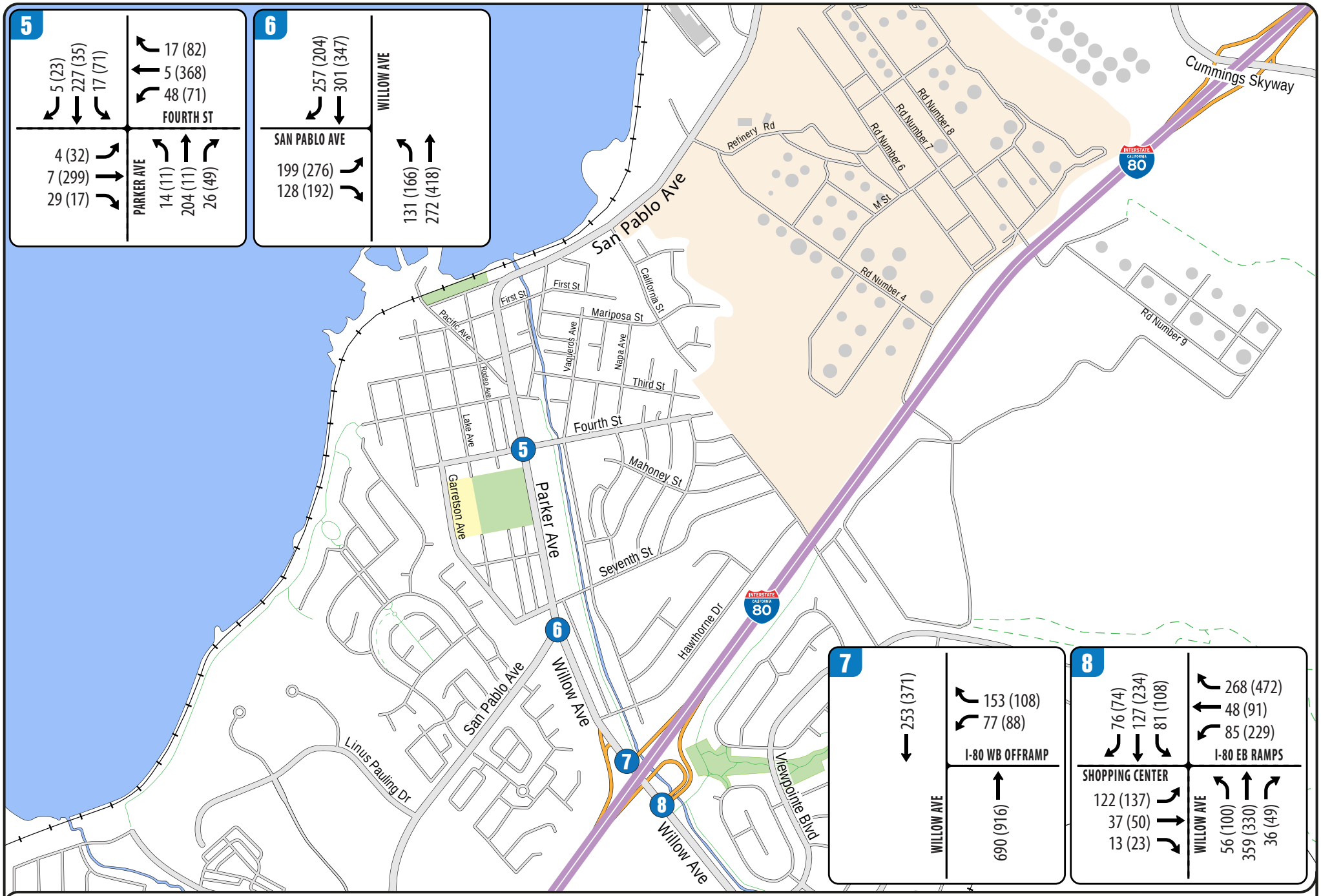

FIGURE 9B | BASELINE PLUS PROJECT AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION ANALYSIS
Phillips 66 Rodeo Renewed Project
Contra Costa County

Abrams Associates
TRAFFIC ENGINEERING, INC.

5.6 Internal Circulation and Safety

Internal Circulation - No internal site circulation or access issues have been identified that would cause a traffic safety problem or any unusual traffic congestion or delay. In general, the project was not found to cause (or substantially increase) any safety hazards due to any design features or incompatible uses.

Safety - Although the project would increase vehicle traffic in the project vicinity it is not expected to significantly impact or change the design of any existing facilities or create any new safety problems in the area. Based on the established significance criteria the project's impacts on transportation safety would be less than significant and no mitigation would be required.

5.7 Pedestrian and Bicycle Impacts

The County does not have level of service standards for pedestrian or bicycle facilities. Nevertheless, use of existing facilities by workers associated with the project would not be expected to overcrowd those facilities or decrease their performance or safety. The proposed project would not significantly impact or change the design of any existing pedestrian facilities and should not create any new safety problems for pedestrians or bicyclists in the area. The project will add some bicyclists in the area but the volumes added would not be expected to significantly impact any existing bicycle facilities. In relation to the existing conditions, the proposed project would not cause substantial changes to the pedestrian or bicycle traffic in the area and would not significantly impact or require changes to the design of any existing bicycle or pedestrian facilities.

5.8 Transit Impacts

The project would not result in degradation of the level of service (or a significant increase in delay) on any roadway segments currently being utilized by bus transit in the area and, as such, no significant impacts to bus transit are expected. The proposed project would not interfere with BART or any existing bus routes and would not remove or relocate any existing bus stops. The proposed project could potentially help support existing bus services with additional transit ridership and would not conflict with any transit plans or goals of BART or The County Connection. As a result, the project would not be expected to result in any significant impacts to bus transit service in the area.

5.9 Vehicle Miles Traveled

One performance measure that can be used to quantify the transportation impacts of a project is vehicle miles traveled (VMT). This section presents the extent of the VMT-related transportation impacts caused by the Project. The County does not currently have its own adopted CEQA thresholds for VMT, however, as per CEQA Guidelines section 15064.3(c), the provisions of 15064.3 apply statewide as of July 1, 2020, and therefore a project's effect on automobile delay

shall no longer constitute a significant impact. Because VMT is a relatively new method for measuring transportation impacts under CEQA, less data exists to estimate VMT than trip generation based on use and location. For jurisdictions that have not developed individual VMT models, VMT is typically estimated using an area-wide travel demand model from a regional transportation agency that calculates VMT based on the number of vehicles multiplied by the typical distance traveled by each vehicle originating from or driving to a certain area. It should be mentioned that purely industrial uses are generally desired to be located in locations that are less dense and not within urban areas where there is typically a lower VMT per employee. Industrial land uses are land intensive; therefore, placing industrial land uses in less urban areas that have a higher VMT per employee allows land in efficient VMT areas to be more effectively utilized for high density residential and commercial uses.

OPR's 2018 Technical Advisory and Contra Costa County's Transportation Analysis Guidelines includes standards for VMT screening which specify that low trip generating projects that are consistent with the General Plan and "*generate or attract fewer than 110 trips per day*" can be presumed to "*cause a less-than-significant impact under CEQA and would not require further VMT analysis* ". Subject to County approval the proposed project would qualify for the screening criteria covering small projects since it is forecast to generate a net reduction of about 63 truck trips per day. It should be noted that this conclusion is subject to a County determination that the project is considered to be located in an urban area. Rural areas have fewer opportunities to reduce VMT and in these areas significance thresholds can be set on a case-by-case basis based on available data. However, subject to County approval, the project would be presumed to have a less than significant impact on VMT and would not require further VMT analysis for CEQA purposes.

5.10 Adverse Effects, Impacts, and Mitigation Measures

Based on the project's design and a detailed analysis conducted according to the required guidelines there would be no significant transportation impacts according to CEQA and no substantial adverse effects related to the County's LOS standards. As a result, no off-site traffic or transportation improvements would be required, subject to County approval.

Impact #1 Impacts related to conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or potential decreases to the performance or safety of such facilities.

The project would not result in degradation of the level of service (or a significant increase in delay) on any roadway segments currently being utilized by bus transit in the area and would not increase ridership beyond existing capacity. As such, no significant impacts to bus transit will occur. In addition, the proposed project would not significantly impact or change the design of any existing pedestrian facilities and would not create any new safety problems for pedestrians in the area. The project will add some bicyclists in the area but the volumes added would not be expected to significantly impact any existing bicycle facilities. In relation to the

existing conditions, the proposed project would not cause substantial changes to the pedestrian or bicycle traffic in the area and would not significantly impact or require changes to the design of any existing bicycle or pedestrian facilities.

Mitigation Measure(s)
None required.

Impact #2 Adverse effects related to construction activities

The increase in traffic as a result of demolition and construction activities associated with the proposed project has been quantified for the peak construction period when peak phases overlap. During construction the project could employ up to 500 workers at its peak and the hauling of materials could include up to 10 trucks per day (each with one trip in and one trip out). With an estimate of approximately 30 vehicles per day from vendors, deliveries, and other visitors the project is forecast to generate up to a maximum of 1,080 vehicles per day during the peak phase of construction. The peak phase for traffic generation is expected to occur for approximately 4 months out of the 15-month construction period.

Heavy Equipment

Heavy equipment transport to and from the site could cause adverse traffic effects in the vicinity of the project site during construction. However, each load would be required to obtain all necessary permits, which would include conditions. Prior to issuance of grading and building permits, the project applicant would be required to submit a Traffic Control Plan.

The requirements within the Traffic Control Plan include, but are not limited to, the following: truck drivers would be notified of and required to use the most direct route between the site and the freeway, as determined by the County Engineering Department; all site ingress and egress would occur only at the main driveways to the project site and construction activities may require installation of temporary (or ultimate) traffic signals as determined by the County Engineer; specifically designated travel routes for large vehicles would be monitored and controlled by flaggers for large construction vehicle ingress and egress; any debris and mud on nearby streets caused by trucks would be monitored daily and may require instituting a street cleaning program. In addition, the transport of heavy equipment being hauled to and from the site each month would be short-term and temporary.

Employees

The weekday work is expected to begin around 7:00 AM and end around 4:00 PM. The construction worker arrival peak would occur between 6:30 AM and 7:30 AM, and the departure peak would occur between 4:00 PM and 5:00 PM. These peak

hours are slightly before the Countywide commute peaks. Construction workers could require parking for up to 500 vehicles during the peak construction period. Additionally, deliveries, visits, and other activities may generate peak non-worker parking demand of 10 to 15 trucks and automobiles per day. The Traffic Control Plan will require construction employee parking be provided on the project site to eliminate conflicts with nearby residential areas. For this project an off-site contractor parking area is being provided with shuttle buses providing transportation from the parking area to the work site. With this proposed shuttle bus plan it is anticipated there would be no substantial adverse effects on traffic operations and no significant safety impacts resulting from construction-related employee traffic and parking.

Construction Material Import/Export

The project would also require removal of existing debris as well as the importation of construction material, including raw materials for the building pads, the buildings, and landscaping. Furthermore, under the provisions of the Traffic Control Plan, if importation and exportation of material becomes a traffic nuisance, then the County Engineer may limit the hours the activities can take place.

Traffic Control Plan

The Traffic Control Plan would indicate how parking for construction workers would be provided during construction and ensure a safe flow of traffic in the project area during construction. This analysis assumed construction of the entire project in one phase to identify the potential worst-case traffic effects. If the project is built in phases over time, the effects of each phase will be the same or less. Each phase will be subject to a Traffic Control Plan and oversight by the County Engineer. Therefore, the demolition and construction activities associated with the proposed project or its individual phases would not lead to noticeable congestion in the vicinity of the site or decreased traffic safety.

Mitigation Measure(s)
None required.

Impact #3 Impacts related to site access and circulation.

The proposed project would have it main access via the intersection of Refinery Road and San Pablo Avenue. The proposed signalized intersection providing access to the project is forecast to have acceptable operations. Based on a review of the proposed plan it was determined that the site circulation should function well and would not cause any safety or operational problems. The project site design has been required to conform to County design standards and is not expected to

cause any substantial adverse effects on pedestrians, bicyclists or traffic operations.

Mitigation Measure(s)
None required.

Impact #4 Impacts regarding emergency vehicle access on and surrounding the proposed project site.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. The existing refinery site has several temporary/emergency vehicle access entrances on San Pablo Avenue, in addition to the main signalized entrance intersection with Refinery Road. All lane widths within the project would meet the minimum width that can accommodate an emergency vehicle; therefore, the width of the internal roadways would be adequate. In addition, the forecast traffic from the project would not be forecast to result in any significant changes to emergency vehicle response times in the area. Therefore, subject to approval from the County and the fire department, the development of the proposed project is expected to have no substantial adverse effects regarding emergency vehicle access.

Mitigation Measure(s)
None required.

Transportation Analysis
Technical Appendix

Phillips 66 Rodeo Renewed Project

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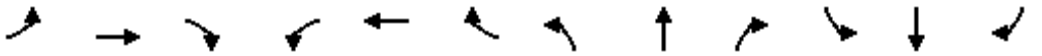
April 27, 2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	46	2	4	13	6	11	31	3	13	24	22
Future Volume (veh/h)	13	46	2	4	13	6	11	31	3	13	24	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	14	50	0	4	14	0	12	34	0	14	26	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	294	125		296	126		99	198		87	174	
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.00	0.06	0.06	0.00	0.05	0.05	0.00
Sat Flow, veh/h	371	1326	1535	381	1334	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	64	0	0	18	0	0	12	34	0	14	26	0
Grp Sat Flow(s),veh/h/ln	1697	0	1535	1715	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.2	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.0
Prop In Lane	0.22		1.00	0.22		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	0		422	0		99	198		87	174	
V/C Ratio(X)	0.15	0.00		0.04	0.00		0.12	0.17		0.16	0.15	
Avail Cap(c_a), veh/h	3698	0		3667	0		2598	5183		2700	5386	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	7.0	0.0	0.0	7.6	7.6	0.0	7.7	7.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.8	0.4	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	0.0	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	7.4	0.0	0.0	7.1	0.0	0.0	8.1	8.0	0.0	8.5	8.1	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		64	A		18	A		46	A		40	A
Approach Delay, s/veh		7.4			7.1			8.0			8.2	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		5.5		6.1		5.4		6.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		25.5		34.5		26.5		34.5				
Max Q Clear Time (g_c+I1), s		2.2		2.6		2.1		2.2				
Green Ext Time (p_c), s		0.2		0.3		0.1		0.1				

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

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	65	1	14	37	8	32
Future Volume (veh/h)	65	1	14	37	8	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	71	0	15	0	9	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	146		113		21	643
Arrive On Green	0.08	0.00	0.06	0.00	0.01	0.35
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	71	0	15	0	9	35
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	0.6	0.0	0.1	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.6	0.0	0.1	0.0	0.1	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	146		113		21	643
V/C Ratio(X)	0.49		0.13		0.43	0.05
Avail Cap(c_a), veh/h	4029		3667		1773	6036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	0.0	7.1	0.0	7.9	3.4
Incr Delay (d2), s/veh	2.5	0.0	0.5	0.0	13.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.5	0.0	7.6	0.0	20.9	3.4
LnGrp LOS	A		A		C	A
Approach Vol, veh/h	71	A	15	A		44
Approach Delay, s/veh	9.5		7.6			7.0
Approach LOS	A		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.7	5.5				10.2	5.9
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	16.5	32.5				53.5	37.5
Max Q Clear Time (g_c+I1), s	2.1	2.1				2.2	2.6
Green Ext Time (p_c), s	0.0	0.0				0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	75	3	11	33	0	0	0	0	82	6	7
Future Vol, veh/h	0	75	3	11	33	0	0	0	0	82	6	7
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	82	3	12	36	0	0	0	0	89	7	8

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	189	11	232	193	-		0	0	0
Stage 1	-	189	-	0	0	-		-	-	-
Stage 2	-	0	-	232	193	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	699	1058	714	695	0		-	-	-
Stage 1	0	736	-	-	-	0		-	-	-
Stage 2	0	-	-	762	733	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	699	1058	648	695	-		-	-	-
Mov Cap-2 Maneuver	-	699	-	648	695	-		-	-	-
Stage 1	-	736	-	-	-	-		-	-	-
Stage 2	-	-	-	676	733	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.7	10.7	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	699	1058	683	-	-	-
HCM Lane V/C Ratio	0.117	0.003	0.07	-	-	-
HCM Control Delay (s)	10.8	8.4	10.7	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	0.4	0	0.2	-	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	121	0	0	24	49	8	5	7	0	0	0
Future Vol, veh/h	14	121	0	0	24	49	8	5	7	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	15	132	0	0	26	53	9	5	8	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8	7.1	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	40%	10%	0%
Vol Thru, %	25%	90%	33%
Vol Right, %	35%	0%	67%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	135	73
LT Vol	8	14	0
Through Vol	5	121	24
RT Vol	7	0	49
Lane Flow Rate	22	147	79
Geometry Grp	1	1	1
Degree of Util (X)	0.026	0.168	0.083
Departure Headway (Hd)	4.258	4.12	3.746
Convergence, Y/N	Yes	Yes	Yes
Cap	827	872	951
Service Time	2.353	2.144	1.792
HCM Lane V/C Ratio	0.027	0.169	0.083
HCM Control Delay	7.5	8	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.6	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	24	40	4	14	12	149	22	14	187	4
Future Volume (veh/h)	3	6	24	40	4	14	12	149	22	14	187	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	7	26	43	4	15	13	162	24	15	203	4
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	6	14	51	81	8	28	30	322	48	35	375	7
Arrive On Green	0.04	0.04	0.04	0.07	0.07	0.07	0.02	0.21	0.21	0.02	0.21	0.21
Sat Flow, veh/h	135	316	1172	1184	110	413	1753	1567	232	1753	1799	35
Grp Volume(v), veh/h	36	0	0	62	0	0	13	0	186	15	0	207
Grp Sat Flow(s),veh/h/ln	1623	0	0	1707	0	0	1753	0	1799	1753	0	1834
Q Serve(g_s), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.5	0.2	0.0	2.7
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.5	0.2	0.0	2.7
Prop In Lane	0.08		0.72	0.69		0.24	1.00		0.13	1.00		0.02
Lane Grp Cap(c), veh/h	71	0	0	117	0	0	30	0	370	35	0	382
V/C Ratio(X)	0.51	0.00	0.00	0.53	0.00	0.00	0.43	0.00	0.50	0.43	0.00	0.54
Avail Cap(c_a), veh/h	1224	0	0	1350	0	0	484	0	2150	484	0	2193
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	12.2	0.0	0.0	13.2	0.0	9.6	13.2	0.0	9.6
Incr Delay (d2), s/veh	5.5	0.0	0.0	3.6	0.0	0.0	9.4	0.0	1.1	8.4	0.0	1.2
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	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.7	0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	0.0	15.9	0.0	0.0	22.7	0.0	10.6	21.6	0.0	10.8
LnGrp LOS	B	A	A	B	A	A	C	A	B	C	A	B
Approach Vol, veh/h		36			62			199			222	
Approach Delay, s/veh		18.2			15.9			11.4			11.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	10.1		5.7	5.0	10.2		6.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	32.5		20.5	7.5	32.5		21.5				
Max Q Clear Time (g_c+I1), s	2.2	4.5		2.6	2.2	4.7		3.0				
Green Ext Time (p_c), s	0.0	1.1		0.1	0.0	1.2		0.2				

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	161	107	109	211	249	213
Future Volume (veh/h)	161	107	109	211	249	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	175	0	118	229	271	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	477		196	1758	744	
Arrive On Green	0.14	0.00	0.11	0.50	0.21	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	175	0	118	229	271	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.2	0.0	1.6	0.9	1.7	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.6	0.9	1.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	477		196	1758	744	
V/C Ratio(X)	0.37		0.60	0.13	0.36	
Avail Cap(c_a), veh/h	3576		1635	8951	5065	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.8	0.0	10.7	3.3	8.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	0.1	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	0.0	13.6	3.4	8.8	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	175	A		347	271	A
Approach Delay, s/veh	10.3			6.9	8.8	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	17.2		8.0	7.3	9.9
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	64.5		26.5	23.5	36.5
Max Q Clear Time (g_c+I1), s	2.9		3.2	3.6	3.7
Green Ext Time (p_c), s	1.6		0.6	0.3	1.9

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	123	563	0	0	210
Future Volume (veh/h)	64	123	563	0	0	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	70	134	612	0	0	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	283	252	1507	0	0	1507
Arrive On Green	0.16	0.16	0.43	0.00	0.00	0.43
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	70	134	612	0	0	228
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	0.8	1.7	2.7	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.8	1.7	2.7	0.0	0.0	0.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	283	252	1507	0	0	1507
V/C Ratio(X)	0.25	0.53	0.41	0.00	0.00	0.15
Avail Cap(c_a), veh/h	2739	2437	8948	0	0	8948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	8.1	8.5	4.3	0.0	0.0	3.8
Incr Delay (d2), s/veh	0.4	1.7	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.3	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	10.2	4.5	0.0	0.0	3.9
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h	204		612			228
Approach Delay, s/veh	9.6		4.5			3.9
Approach LOS	A		A			A

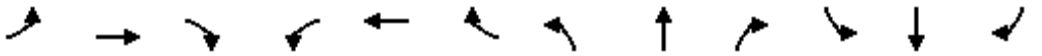
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	14.0			14.0	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	56.5			56.5	34.5
Max Q Clear Time (g_c+I1), s	4.7			2.9	3.7
Green Ext Time (p_c), s	4.9			1.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	31	11	71	40	212	47	299	30	67	106	63
Future Volume (veh/h)	102	31	11	71	40	212	47	299	30	67	106	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	34	12	77	43	230	51	325	33	73	115	68
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	50	186	240	134	326	93	591	60	119	432	239
Arrive On Green	0.12	0.12	0.12	0.21	0.21	0.21	0.05	0.18	0.18	0.07	0.20	0.20
Sat Flow, veh/h	1357	416	1560	1144	639	1560	1753	3208	323	1753	2170	1203
Grp Volume(v), veh/h	145	0	12	120	0	230	51	176	182	73	91	92
Grp Sat Flow(s),veh/h/ln	1773	0	1560	1783	0	1560	1753	1749	1782	1753	1749	1624
Q Serve(g_s), s	3.4	0.0	0.3	2.4	0.0	5.9	1.2	3.9	4.0	1.7	1.9	2.1
Cycle Q Clear(g_c), s	3.4	0.0	0.3	2.4	0.0	5.9	1.2	3.9	4.0	1.7	1.9	2.1
Prop In Lane	0.77		1.00	0.64		1.00	1.00		0.18	1.00		0.74
Lane Grp Cap(c), veh/h	212	0	186	373	0	326	93	322	329	119	348	323
V/C Ratio(X)	0.68	0.00	0.06	0.32	0.00	0.70	0.55	0.55	0.55	0.62	0.26	0.28
Avail Cap(c_a), veh/h	929	0	817	934	0	817	388	998	1017	510	1120	1040
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	16.8	14.4	0.0	15.7	19.8	15.9	15.9	19.5	14.5	14.6
Incr Delay (d2), s/veh	3.9	0.0	0.1	0.5	0.0	2.8	5.0	1.4	1.5	5.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.1	0.9	0.0	2.0	0.6	1.5	1.5	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	16.9	14.9	0.0	18.5	24.8	17.3	17.4	24.6	14.9	15.1
LnGrp LOS	C	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		157			350			409			256	
Approach Delay, s/veh		21.6			17.3			18.3			17.7	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	12.4		9.6	6.8	13.0		13.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	24.5		22.5	9.5	27.5		22.5
Max Q Clear Time (g_c+I1), s	3.7	6.0		5.4	3.2	4.1		7.9
Green Ext Time (p_c), s	0.1	1.9		0.7	0.0	1.0		1.3

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	5	15	2	14	39	2	92	11	37	71	17
Future Volume (veh/h)	99	5	15	2	14	39	2	92	11	37	71	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	108	5	0	2	15	0	2	100	0	40	77	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	507	8		214	205		185	368		204	406	
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.00	0.11	0.11	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1331	62	1535	165	1615	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	113	0	0	17	0	0	2	100	0	40	77	0
Grp Sat Flow(s),veh/h/ln	1393	0	1535	1780	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.4	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.2	0.0	0.0	0.0	0.6	0.0	0.4	0.4	0.0
Prop In Lane	0.96		1.00	0.12		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	515	0		419	0		185	368		204	406	
V/C Ratio(X)	0.22	0.00		0.04	0.00		0.01	0.27		0.20	0.19	
Avail Cap(c_a), veh/h	2740	0		3254	0		2194	4377		1946	3882	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.0	0.0	0.0	8.3	8.6	0.0	8.3	8.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	0.0	0.0	8.1	0.0	0.0	8.3	8.9	0.0	8.8	8.5	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		113	A		17	A		102	A		117	A
Approach Delay, s/veh		8.8			8.1			8.9			8.6	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		6.7		7.1		7.0		7.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		36.5		23.5		36.5				
Max Q Clear Time (g_c+I1), s		2.6		3.6		2.4		2.2				
Green Ext Time (p_c), s		0.5		0.6		0.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	8.7	
HCM 6th LOS	A	

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	14	115	170	9	31
Future Volume (veh/h)	74	14	115	170	9	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	80	0	125	0	10	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	158		275		23	748
Arrive On Green	0.09	0.00	0.15	0.00	0.01	0.41
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	80	0	125	0	10	34
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	0.8	0.0	1.1	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.8	0.0	1.1	0.0	0.1	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	158		275		23	748
V/C Ratio(X)	0.51		0.45		0.43	0.05
Avail Cap(c_a), veh/h	2896		4536		997	6032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	0.0	7.0	0.0	8.9	3.2
Incr Delay (d2), s/veh	2.5	0.0	1.2	0.0	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.3	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.4	0.0	8.2	0.0	20.8	3.2
LnGrp LOS	B		A		C	A
Approach Vol, veh/h	80	A	125	A		44
Approach Delay, s/veh	10.4		8.2			7.2
Approach LOS	B		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.7	7.3				12.0	6.2
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	10.5	45.5				60.5	30.5
Max Q Clear Time (g_c+I1), s	2.1	3.1				2.2	2.8
Green Ext Time (p_c), s	0.0	0.7				0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	178	16	21	55	0	0	0	0	46	2	18
Future Vol, veh/h	0	178	16	21	55	0	0	0	0	46	2	18
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	193	17	23	60	0	0	0	0	50	2	20

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	112	12	217	122	-		0	0	0
Stage 1	-	112	-	0	0	-		-	-	-
Stage 2	-	0	-	217	122	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	771	1057	731	761	0		-	-	-
Stage 1	0	795	-	-	-	0		-	-	-
Stage 2	0	-	-	776	787	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	771	1057	580	761	-		-	-	-
Mov Cap-2 Maneuver	-	771	-	580	761	-		-	-	-
Stage 1	-	795	-	-	-	-		-	-	-
Stage 2	-	-	-	577	787	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	11	10.8	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	771	1057	701	-	-	-
HCM Lane V/C Ratio	0.251	0.016	0.118	-	-	-
HCM Control Delay (s)	11.2	8.5	10.8	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	1	0.1	0.4	-	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	86	154	0	0	51	111	19	7	25	0	0	0
Future Vol, veh/h	86	154	0	0	51	111	19	7	25	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	93	167	0	0	55	121	21	8	27	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.4	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	37%	36%	0%
Vol Thru, %	14%	64%	31%
Vol Right, %	49%	0%	69%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	51	240	162
LT Vol	19	86	0
Through Vol	7	154	51
RT Vol	25	0	111
Lane Flow Rate	55	261	176
Geometry Grp	1	1	1
Degree of Util (X)	0.073	0.312	0.196
Departure Headway (Hd)	4.721	4.305	3.997
Convergence, Y/N	Yes	Yes	Yes
Cap	762	824	902
Service Time	2.732	2.387	2.003
HCM Lane V/C Ratio	0.072	0.317	0.195
HCM Control Delay	8.1	9.4	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1.3	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	249	14	59	307	68	9	6	41	59	11	19
Future Volume (veh/h)	27	249	14	59	307	68	9	6	41	59	11	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	29	271	15	64	334	74	10	7	45	64	12	21
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	348	19	79	414	92	23	15	95	99	68	118
Arrive On Green	0.22	0.22	0.22	0.33	0.33	0.33	0.01	0.07	0.07	0.06	0.11	0.11
Sat Flow, veh/h	167	1563	87	241	1258	279	1753	214	1378	1753	601	1051
Grp Volume(v), veh/h	315	0	0	472	0	0	10	0	52	64	0	33
Grp Sat Flow(s),veh/h/ln	1817	0	0	1778	0	0	1753	0	1593	1753	0	1652
Q Serve(g_s), s	9.1	0.0	0.0	13.5	0.0	0.0	0.3	0.0	1.8	2.0	0.0	1.0
Cycle Q Clear(g_c), s	9.1	0.0	0.0	13.5	0.0	0.0	0.3	0.0	1.8	2.0	0.0	1.0
Prop In Lane	0.09		0.05	0.14		0.16	1.00		0.87	1.00		0.64
Lane Grp Cap(c), veh/h	404	0	0	585	0	0	23	0	110	99	0	186
V/C Ratio(X)	0.78	0.00	0.00	0.81	0.00	0.00	0.44	0.00	0.47	0.65	0.00	0.18
Avail Cap(c_a), veh/h	734	0	0	1037	0	0	160	0	603	186	0	649
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	0.0	17.1	0.0	0.0	27.3	0.0	25.0	25.7	0.0	22.4
Incr Delay (d2), s/veh	3.3	0.0	0.0	2.7	0.0	0.0	13.0	0.0	3.1	6.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	5.2	0.0	0.0	0.2	0.0	0.7	1.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	19.8	0.0	0.0	40.4	0.0	28.1	32.7	0.0	22.8
LnGrp LOS	C	A	A	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		315			472			62			97	
Approach Delay, s/veh		23.7			19.8			30.1			29.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	8.4		16.9	5.2	10.8		22.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.9	21.1		22.5	5.1	21.9		32.5				
Max Q Clear Time (g_c+I1), s	4.0	3.8		11.1	2.3	3.0		15.5				
Green Ext Time (p_c), s	0.0	0.2		1.4	0.0	0.1		2.8				

Intersection Summary		
HCM 6th Ctrl Delay	22.7	
HCM 6th LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	229	160	138	346	274	167
Future Volume (veh/h)	229	160	138	346	274	167
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	249	0	150	376	298	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	532		219	1787	768	
Arrive On Green	0.16	0.00	0.12	0.51	0.22	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	249	0	150	376	298	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.8	0.0	2.2	1.6	2.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	2.2	1.6	2.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	532		219	1787	768	
V/C Ratio(X)	0.47		0.68	0.21	0.39	
Avail Cap(c_a), veh/h	3332		1782	8340	4202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.4	0.0	11.3	3.6	9.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	3.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.8	0.2	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	0.0	15.1	3.7	9.3	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	249	A		526	298	A
Approach Delay, s/veh	11.0			6.9	9.3	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	18.3		8.7	7.9	10.4
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	64.5		26.5	27.5	32.5
Max Q Clear Time (g_c+I1), s	3.6		3.8	4.2	4.0
Green Ext Time (p_c), s	2.8		0.8	0.4	2.0

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	89	762	0	0	306
Future Volume (veh/h)	73	89	762	0	0	306
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	79	97	828	0	0	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	244	217	1789	0	0	1789
Arrive On Green	0.14	0.14	0.51	0.00	0.00	0.51
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	79	97	828	0	0	333
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	1.0	1.5	3.9	0.0	0.0	1.3
Cycle Q Clear(g_c), s	1.0	1.5	3.9	0.0	0.0	1.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	244	217	1789	0	0	1789
V/C Ratio(X)	0.32	0.45	0.46	0.00	0.00	0.19
Avail Cap(c_a), veh/h	1803	1605	8756	0	0	8756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	10.2	4.0	0.0	0.0	3.4
Incr Delay (d2), s/veh	0.8	1.4	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.4	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.8	11.6	4.2	0.0	0.0	3.4
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	176		828			333
Approach Delay, s/veh	11.2		4.2			3.4
Approach LOS	B		A			A

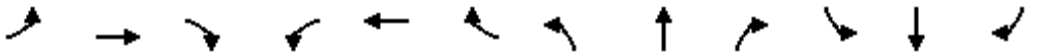
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	17.7			17.7	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	64.5			64.5	26.5
Max Q Clear Time (g_c+I1), s	5.9			3.3	3.5
Green Ext Time (p_c), s	7.3			2.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	42	19	191	76	392	83	275	41	87	195	62
Future Volume (veh/h)	114	42	19	191	76	392	83	275	41	87	195	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	124	46	21	208	83	426	90	299	45	95	212	67
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	171	64	207	425	170	522	116	469	70	123	415	128
Arrive On Green	0.13	0.13	0.13	0.33	0.33	0.33	0.07	0.15	0.15	0.07	0.16	0.16
Sat Flow, veh/h	1295	481	1560	1270	507	1560	1753	3053	455	1753	2634	810
Grp Volume(v), veh/h	170	0	21	291	0	426	90	170	174	95	139	140
Grp Sat Flow(s),veh/h/ln	1776	0	1560	1777	0	1560	1753	1749	1759	1753	1749	1695
Q Serve(g_s), s	5.4	0.0	0.7	7.6	0.0	14.6	2.9	5.3	5.4	3.1	4.2	4.4
Cycle Q Clear(g_c), s	5.4	0.0	0.7	7.6	0.0	14.6	2.9	5.3	5.4	3.1	4.2	4.4
Prop In Lane	0.73		1.00	0.71		1.00	1.00		0.26	1.00		0.48
Lane Grp Cap(c), veh/h	235	0	207	595	0	522	116	269	270	123	276	267
V/C Ratio(X)	0.72	0.00	0.10	0.49	0.00	0.82	0.77	0.63	0.64	0.77	0.50	0.52
Avail Cap(c_a), veh/h	594	0	522	930	0	816	346	585	588	376	615	596
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	22.2	15.4	0.0	17.7	26.8	23.1	23.2	26.6	22.5	22.5
Incr Delay (d2), s/veh	4.2	0.0	0.2	0.6	0.0	3.7	10.4	2.4	2.6	9.7	1.4	1.6
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	2.4	0.0	0.2	2.8	0.0	5.1	1.5	2.2	2.3	1.6	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	22.5	16.0	0.0	21.4	37.2	25.6	25.7	36.4	23.9	24.1
LnGrp LOS	C	A	C	B	A	C	D	C	C	D	C	C
Approach Vol, veh/h		191			717			434			374	
Approach Delay, s/veh		27.8			19.2			28.0			27.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	13.5		12.2	8.4	13.7		24.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	19.5		19.5	11.5	20.5		30.5
Max Q Clear Time (g_c+I1), s	5.1	7.4		7.4	4.9	6.4		16.6
Green Ext Time (p_c), s	0.1	1.5		0.7	0.1	1.3		3.0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	46	2	4	13	9	11	54	5	40	27	22
Future Volume (veh/h)	13	46	2	4	13	9	11	54	5	40	27	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	14	50	0	4	14	0	12	59	0	43	29	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	275	124		277	124		143	285		145	288	
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.00	0.08	0.08	0.00	0.08	0.08	0.00
Sat Flow, veh/h	371	1326	1535	381	1334	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	64	0	0	18	0	0	12	59	0	43	29	0
Grp Sat Flow(s),veh/h/ln	1697	0	1535	1716	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.4	0.1	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.2	0.0	0.0	0.1	0.3	0.0	0.4	0.1	0.0
Prop In Lane	0.22		1.00	0.22		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	0		401	0		143	285		145	288	
V/C Ratio(X)	0.16	0.00		0.04	0.00		0.08	0.21		0.30	0.10	
Avail Cap(c_a), veh/h	3248	0		3221	0		2506	5000		2601	5188	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.8	0.0	0.0	7.6	0.0	0.0	7.7	7.8	0.0	7.9	7.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	1.1	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	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	0.0	0.0	7.6	0.0	0.0	8.0	8.2	0.0	9.0	7.9	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		64	A		18	A		71	A		72	A
Approach Delay, s/veh		8.0			7.6			8.1			8.5	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		6.0		6.2		6.0		6.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		32.5		27.5		32.5				
Max Q Clear Time (g_c+I1), s		2.3		2.6		2.4		2.2				
Green Ext Time (p_c), s		0.3		0.3		0.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	504	1	16	85	8	47
Future Volume (veh/h)	504	1	16	85	8	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	548	0	17	0	9	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	712		134		21	459
Arrive On Green	0.41	0.00	0.07	0.00	0.01	0.25
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	548	0	17	0	9	51
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	7.4	0.0	0.2	0.0	0.1	0.6
Cycle Q Clear(g_c), s	7.4	0.0	0.2	0.0	0.1	0.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	712		134		21	459
V/C Ratio(X)	0.77		0.13		0.43	0.11
Avail Cap(c_a), veh/h	3746		1446		416	2185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	0.0	11.7	0.0	13.2	7.7
Incr Delay (d2), s/veh	1.8	0.0	0.4	0.0	13.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.1	0.0	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6	0.0	12.1	0.0	26.7	7.8
LnGrp LOS	A		B		C	A
Approach Vol, veh/h	548	A	17	A		60
Approach Delay, s/veh	8.6		12.1			10.7
Approach LOS	A		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.8	6.5			11.3	15.6
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	6.5	21.5			32.5	58.5
Max Q Clear Time (g_c+I1), s	2.1	2.2			2.6	9.4
Green Ext Time (p_c), s	0.0	0.0			0.2	1.9

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

Notes

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

Intersection	
Int Delay, s/veh	12.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	97	29	11	319	0	0	0	0	82	6	160
Future Vol, veh/h	0	97	29	11	319	0	0	0	0	82	6	160
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	105	32	12	347	0	0	0	0	89	7	174

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	272	94	341	359	-		0	0	0
Stage 1	-	272	-	0	0	-		-	-	-
Stage 2	-	0	-	341	359	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	628	952	605	561	0		-	-	-
Stage 1	0	677	-	-	-	0		-	-	-
Stage 2	0	-	-	666	620	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	628	952	509	561	-		-	-	-
Mov Cap-2 Maneuver	-	628	-	509	561	-		-	-	-
Stage 1	-	677	-	-	-	-		-	-	-
Stage 2	-	-	-	544	620	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	11.2	22.2	
HCM LOS	B	C	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	628	952	559	-	-	-
HCM Lane V/C Ratio	0.168	0.033	0.642	-	-	-
HCM Control Delay (s)	11.9	8.9	22.2	-	-	-
HCM Lane LOS	B	A	C	-	-	-
HCM 95th %tile Q(veh)	0.6	0.1	4.5	-	-	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	126	0	0	76	49	242	5	7	0	0	0
Future Vol, veh/h	31	126	0	0	76	49	242	5	7	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	34	137	0	0	83	53	263	5	8	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.5	8.8	10.9
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	95%	20%	0%
Vol Thru, %	2%	80%	61%
Vol Right, %	3%	0%	39%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	254	157	125
LT Vol	242	31	0
Through Vol	5	126	76
RT Vol	7	0	49
Lane Flow Rate	276	171	136
Geometry Grp	1	1	1
Degree of Util (X)	0.376	0.233	0.177
Departure Headway (Hd)	4.907	4.916	4.693
Convergence, Y/N	Yes	Yes	Yes
Cap	732	729	762
Service Time	2.95	2.96	2.738
HCM Lane V/C Ratio	0.377	0.235	0.178
HCM Control Delay	10.9	9.5	8.8
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.8	0.9	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	24	40	4	14	12	174	22	14	190	4
Future Volume (veh/h)	3	6	24	40	4	14	12	174	22	14	190	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	7	26	43	4	15	13	189	24	15	207	4
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	6	14	51	81	8	28	30	344	44	35	392	8
Arrive On Green	0.04	0.04	0.04	0.07	0.07	0.07	0.02	0.22	0.22	0.02	0.22	0.22
Sat Flow, veh/h	135	316	1172	1184	110	413	1753	1601	203	1753	1800	35
Grp Volume(v), veh/h	36	0	0	62	0	0	13	0	213	15	0	211
Grp Sat Flow(s),veh/h/ln	1623	0	0	1707	0	0	1753	0	1804	1753	0	1834
Q Serve(g_s), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.9	0.2	0.0	2.8
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.9	0.2	0.0	2.8
Prop In Lane	0.08		0.72	0.69		0.24	1.00		0.11	1.00		0.02
Lane Grp Cap(c), veh/h	71	0	0	117	0	0	30	0	388	35	0	399
V/C Ratio(X)	0.51	0.00	0.00	0.53	0.00	0.00	0.43	0.00	0.55	0.43	0.00	0.53
Avail Cap(c_a), veh/h	1207	0	0	1331	0	0	477	0	2127	477	0	2163
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	12.4	0.0	0.0	13.4	0.0	9.6	13.4	0.0	9.5
Incr Delay (d2), s/veh	5.5	0.0	0.0	3.7	0.0	0.0	9.4	0.0	1.2	8.4	0.0	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	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.9	0.2	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	0.0	0.0	16.1	0.0	0.0	22.9	0.0	10.8	21.8	0.0	10.6
LnGrp LOS	B	A	A	B	A	A	C	A	B	C	A	B
Approach Vol, veh/h		36			62			226			226	
Approach Delay, s/veh		18.4			16.1			11.5			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	10.4		5.7	5.0	10.5		6.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	32.5		20.5	7.5	32.5		21.5				
Max Q Clear Time (g_c+I1), s	2.2	4.9		2.6	2.2	4.8		3.0				
Green Ext Time (p_c), s	0.0	1.3		0.1	0.0	1.2		0.2				

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	167	107	109	230	251	214
Future Volume (veh/h)	167	107	109	230	251	214
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	182	0	118	250	273	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	485		195	1758	748	
Arrive On Green	0.14	0.00	0.11	0.50	0.21	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	182	0	118	250	273	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.2	0.0	1.6	1.0	1.7	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.6	1.0	1.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	485		195	1758	748	
V/C Ratio(X)	0.38		0.60	0.14	0.37	
Avail Cap(c_a), veh/h	3554		1625	8896	5034	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.9	0.0	10.7	3.4	8.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	0.1	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	0.0	13.7	3.4	8.8	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	182	A		368	273	A
Approach Delay, s/veh	10.3			6.7	8.8	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.2		8.1	7.3	9.9
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		64.5		26.5	23.5	36.5
Max Q Clear Time (g_c+I1), s		3.0		3.2	3.6	3.7
Green Ext Time (p_c), s		1.8		0.6	0.3	1.9

Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	128	577	0	0	211
Future Volume (veh/h)	64	128	577	0	0	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	70	139	627	0	0	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	285	253	1524	0	0	1524
Arrive On Green	0.16	0.16	0.44	0.00	0.00	0.44
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	70	139	627	0	0	229
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	0.8	1.8	2.8	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.8	1.8	2.8	0.0	0.0	0.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	285	253	1524	0	0	1524
V/C Ratio(X)	0.25	0.55	0.41	0.00	0.00	0.15
Avail Cap(c_a), veh/h	2700	2402	8820	0	0	8820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	8.2	8.6	4.3	0.0	0.0	3.8
Incr Delay (d2), s/veh	0.4	1.8	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.3	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6	10.5	4.5	0.0	0.0	3.9
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h	209		627			229
Approach Delay, s/veh	9.9		4.5			3.9
Approach LOS	A		A			A

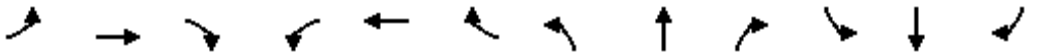
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	14.3			14.3	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	56.5			56.5	34.5
Max Q Clear Time (g_c+I1), s	4.8			2.9	3.8
Green Ext Time (p_c), s	5.1			1.6	0.7

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	31	11	71	40	226	47	299	30	68	106	63
Future Volume (veh/h)	102	31	11	71	40	226	47	299	30	68	106	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	34	12	77	43	246	51	325	33	74	115	68
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	161	49	185	251	140	341	93	589	59	119	431	239
Arrive On Green	0.12	0.12	0.12	0.22	0.22	0.22	0.05	0.18	0.18	0.07	0.20	0.20
Sat Flow, veh/h	1357	416	1560	1144	639	1560	1753	3208	323	1753	2170	1203
Grp Volume(v), veh/h	145	0	12	120	0	246	51	176	182	74	91	92
Grp Sat Flow(s),veh/h/ln	1773	0	1560	1783	0	1560	1753	1749	1782	1753	1749	1624
Q Serve(g_s), s	3.4	0.0	0.3	2.5	0.0	6.4	1.2	4.0	4.1	1.8	1.9	2.1
Cycle Q Clear(g_c), s	3.4	0.0	0.3	2.5	0.0	6.4	1.2	4.0	4.1	1.8	1.9	2.1
Prop In Lane	0.77		1.00	0.64		1.00	1.00		0.18	1.00		0.74
Lane Grp Cap(c), veh/h	211	0	185	390	0	341	93	321	327	119	347	322
V/C Ratio(X)	0.69	0.00	0.06	0.31	0.00	0.72	0.55	0.55	0.56	0.62	0.26	0.28
Avail Cap(c_a), veh/h	870	0	766	916	0	801	380	1018	1038	500	1138	1057
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	17.1	14.3	0.0	15.9	20.2	16.2	16.3	19.9	14.8	14.9
Incr Delay (d2), s/veh	4.0	0.0	0.1	0.4	0.0	2.9	5.0	1.5	1.5	5.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.1	0.9	0.0	2.2	0.6	1.5	1.6	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	17.3	14.8	0.0	18.7	25.3	17.7	17.7	25.1	15.2	15.4
LnGrp LOS	C	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		157			366			409			257	
Approach Delay, s/veh		22.1			17.4			18.7			18.1	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	12.5		9.7	6.8	13.2		14.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	25.5		21.5	9.5	28.5		22.5
Max Q Clear Time (g_c+I1), s	3.8	6.1		5.4	3.2	4.1		8.4
Green Ext Time (p_c), s	0.1	2.0		0.7	0.0	1.0		1.3

Intersection Summary		
HCM 6th Ctrl Delay		18.6
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	5	15	3	14	65	2	96	11	42	92	17
Future Volume (veh/h)	99	5	15	3	14	65	2	96	11	42	92	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	108	5	0	3	15	0	2	104	0	46	100	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	496	8		225	194		188	376		234	466	
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.00	0.11	0.11	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1333	62	1535	230	1538	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	113	0	0	18	0	0	2	104	0	46	100	0
Grp Sat Flow(s),veh/h/ln	1394	0	1535	1768	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.5	0.6	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.2	0.0	0.0	0.0	0.6	0.0	0.5	0.6	0.0
Prop In Lane	0.96		1.00	0.17		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	504	0		419	0		188	376		234	466	
V/C Ratio(X)	0.22	0.00		0.04	0.00		0.01	0.28		0.20	0.21	
Avail Cap(c_a), veh/h	2597	0		3044	0		2130	4250		1969	3929	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	8.3	0.0	0.0	8.5	8.8	0.0	8.2	8.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	0.0	8.3	0.0	0.0	8.5	9.2	0.0	8.6	8.5	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		113	A		18	A		106	A		146	A
Approach Delay, s/veh		9.1			8.3			9.2			8.5	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		6.8		7.2		7.4		7.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		35.5		24.5		35.5				
Max Q Clear Time (g_c+I1), s		2.6		3.6		2.6		2.2				
Green Ext Time (p_c), s		0.6		0.6		0.6		0.1				

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

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	148	14	129	586	9	33
Future Volume (veh/h)	148	14	129	586	9	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	161	0	140	0	10	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	256		284		23	720
Arrive On Green	0.15	0.00	0.16	0.00	0.01	0.40
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	161	0	140	0	10	36
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	1.7	0.0	1.4	0.0	0.1	0.2
Cycle Q Clear(g_c), s	1.7	0.0	1.4	0.0	0.1	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	256		284		23	720
V/C Ratio(X)	0.63		0.49		0.43	0.05
Avail Cap(c_a), veh/h	1959		5331		496	6263
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	0.0	7.6	0.0	9.7	3.7
Incr Delay (d2), s/veh	2.5	0.0	1.3	0.0	12.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.5	0.0	9.0	0.0	21.7	3.7
LnGrp LOS	B		A		C	A
Approach Vol, veh/h	161	A	140	A		46
Approach Delay, s/veh	10.5		9.0			7.6
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.8	7.6			12.4	7.4
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.3	58.3			68.5	22.5
Max Q Clear Time (g_c+I1), s	2.1	3.4			2.2	3.7
Green Ext Time (p_c), s	0.0	0.9			0.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	373	237	21	103	0	0	0	0	46	2	44
Future Vol, veh/h	0	373	237	21	103	0	0	0	0	46	2	44
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	405	258	23	112	0	0	0	0	50	2	48

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	126	26	458	150	-		0	0	0
Stage 1	-	126	-	0	0	-		-	-	-
Stage 2	-	0	-	458	150	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	757	1038	506	734	0		-	-	-
Stage 1	0	784	-	-	-	0		-	-	-
Stage 2	0	-	-	575	766	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	757	1038	220	734	-		-	-	-
Mov Cap-2 Maneuver	-	757	-	220	734	-		-	-	-
Stage 1	-	784	-	-	-	-		-	-	-
Stage 2	-	-	-	209	766	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	13	14.2	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	757	1038	526	-	-	-
HCM Lane V/C Ratio	0.536	0.248	0.256	-	-	-
HCM Control Delay (s)	15.1	9.6	14.2	-	-	-
HCM Lane LOS	C	A	B	-	-	-
HCM 95th %tile Q(veh)	3.2	1	1	-	-	-

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	231	204	0	0	60	111	58	7	25	0	0	0
Future Vol, veh/h	231	204	0	0	60	111	58	7	25	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	251	222	0	0	65	121	63	8	27	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.3	8.7	9.4
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	53%	0%
Vol Thru, %	8%	47%	35%
Vol Right, %	28%	0%	65%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	90	435	171
LT Vol	58	231	0
Through Vol	7	204	60
RT Vol	25	0	111
Lane Flow Rate	98	473	186
Geometry Grp	1	1	1
Degree of Util (X)	0.148	0.6	0.227
Departure Headway (Hd)	5.433	4.57	4.398
Convergence, Y/N	Yes	Yes	Yes
Cap	657	790	814
Service Time	3.487	2.604	2.439
HCM Lane V/C Ratio	0.149	0.599	0.229
HCM Control Delay	9.4	14.3	8.7
HCM Lane LOS	A	B	A
HCM 95th-tile Q	0.5	4.1	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	249	14	59	307	68	9	10	41	59	33	19
Future Volume (veh/h)	27	249	14	59	307	68	9	10	41	59	33	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	29	271	15	64	334	74	10	11	45	64	36	21
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	347	19	79	412	91	23	24	98	98	130	76
Arrive On Green	0.22	0.22	0.22	0.33	0.33	0.33	0.01	0.08	0.08	0.06	0.12	0.12
Sat Flow, veh/h	167	1563	87	241	1258	279	1753	316	1292	1753	1090	636
Grp Volume(v), veh/h	315	0	0	472	0	0	10	0	56	64	0	57
Grp Sat Flow(s),veh/h/ln	1817	0	0	1778	0	0	1753	0	1608	1753	0	1726
Q Serve(g_s), s	9.2	0.0	0.0	13.7	0.0	0.0	0.3	0.0	1.9	2.0	0.0	1.7
Cycle Q Clear(g_c), s	9.2	0.0	0.0	13.7	0.0	0.0	0.3	0.0	1.9	2.0	0.0	1.7
Prop In Lane	0.09		0.05	0.14		0.16	1.00		0.80	1.00		0.37
Lane Grp Cap(c), veh/h	403	0	0	582	0	0	23	0	122	98	0	205
V/C Ratio(X)	0.78	0.00	0.00	0.81	0.00	0.00	0.44	0.00	0.46	0.65	0.00	0.28
Avail Cap(c_a), veh/h	725	0	0	993	0	0	159	0	607	208	0	701
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	17.4	0.0	0.0	27.6	0.0	25.0	26.1	0.0	22.6
Incr Delay (d2), s/veh	3.4	0.0	0.0	2.8	0.0	0.0	13.1	0.0	2.7	7.0	0.0	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	3.9	0.0	0.0	5.4	0.0	0.0	0.2	0.0	0.8	1.0	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	0.0	20.2	0.0	0.0	40.7	0.0	27.6	33.1	0.0	23.4
LnGrp LOS	C	A	A	C	A	A	D	A	C	C	A	C
Approach Vol, veh/h		315			472			66			121	
Approach Delay, s/veh		24.0			20.2			29.6			28.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	8.8		17.0	5.2	11.2		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.7	21.3		22.5	5.1	22.9		31.5
Max Q Clear Time (g_c+I1), s	4.0	3.9		11.2	2.3	3.7		15.7
Green Ext Time (p_c), s	0.0	0.2		1.4	0.0	0.2		2.8

Intersection Summary		
HCM 6th Ctrl Delay	23.1	
HCM 6th LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	230	160	138	349	292	171
Future Volume (veh/h)	230	160	138	349	292	171
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	250	0	150	379	317	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	528		218	1805	796	
Arrive On Green	0.16	0.00	0.12	0.52	0.23	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	250	0	150	379	317	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.8	0.0	2.2	1.6	2.1	0.0
Cycle Q Clear(g_c), s	1.8	0.0	2.2	1.6	2.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	528		218	1805	796	
V/C Ratio(X)	0.47		0.69	0.21	0.40	
Avail Cap(c_a), veh/h	3415		1696	8109	4150	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.5	0.0	11.5	3.6	9.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	3.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.8	0.2	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	0.0	15.3	3.7	9.3	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	250	A		529	317	A
Approach Delay, s/veh	11.2			7.0	9.3	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	18.6		8.8	7.9	10.7
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	63.5		27.5	26.5	32.5
Max Q Clear Time (g_c+I1), s	3.6		3.8	4.2	4.1
Green Ext Time (p_c), s	2.8		0.8	0.4	2.2

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	90	764	0	0	310
Future Volume (veh/h)	73	90	764	0	0	310
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	79	98	830	0	0	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	244	217	1791	0	0	1791
Arrive On Green	0.14	0.14	0.51	0.00	0.00	0.51
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	79	98	830	0	0	337
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	1.0	1.5	3.9	0.0	0.0	1.3
Cycle Q Clear(g_c), s	1.0	1.5	3.9	0.0	0.0	1.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	244	217	1791	0	0	1791
V/C Ratio(X)	0.32	0.45	0.46	0.00	0.00	0.19
Avail Cap(c_a), veh/h	1868	1662	8604	0	0	8604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	10.2	4.0	0.0	0.0	3.4
Incr Delay (d2), s/veh	0.8	1.5	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.4	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.8	11.7	4.2	0.0	0.0	3.5
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	177		830			337
Approach Delay, s/veh	11.3		4.2			3.5
Approach LOS	B		A			A

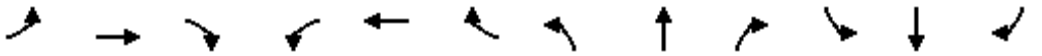
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	17.7			17.7	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	63.5			63.5	27.5
Max Q Clear Time (g_c+I1), s	5.9			3.3	3.5
Green Ext Time (p_c), s	7.3			2.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	5.0
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	42	19	191	76	394	83	275	41	91	195	62
Future Volume (veh/h)	114	42	19	191	76	394	83	275	41	91	195	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	124	46	21	208	83	428	90	299	45	99	212	67
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	171	64	206	423	169	520	116	471	70	129	425	131
Arrive On Green	0.13	0.13	0.13	0.33	0.33	0.33	0.07	0.15	0.15	0.07	0.16	0.16
Sat Flow, veh/h	1295	481	1560	1270	507	1560	1753	3053	455	1753	2634	810
Grp Volume(v), veh/h	170	0	21	291	0	428	90	170	174	99	139	140
Grp Sat Flow(s),veh/h/ln	1776	0	1560	1777	0	1560	1753	1749	1759	1753	1749	1695
Q Serve(g_s), s	5.4	0.0	0.7	7.7	0.0	14.8	3.0	5.3	5.4	3.3	4.2	4.4
Cycle Q Clear(g_c), s	5.4	0.0	0.7	7.7	0.0	14.8	3.0	5.3	5.4	3.3	4.2	4.4
Prop In Lane	0.73		1.00	0.71		1.00	1.00		0.26	1.00		0.48
Lane Grp Cap(c), veh/h	235	0	206	592	0	520	116	270	272	129	282	273
V/C Ratio(X)	0.72	0.00	0.10	0.49	0.00	0.82	0.77	0.63	0.64	0.77	0.49	0.51
Avail Cap(c_a), veh/h	591	0	519	864	0	758	374	611	615	404	641	621
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	0.0	22.4	15.6	0.0	18.0	26.9	23.2	23.3	26.7	22.4	22.5
Incr Delay (d2), s/veh	4.2	0.0	0.2	0.6	0.0	4.8	10.3	2.4	2.5	9.3	1.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.3	2.9	0.0	5.4	1.5	2.2	2.3	1.6	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	22.6	16.2	0.0	22.8	37.3	25.6	25.8	35.9	23.7	24.0
LnGrp LOS	C	A	C	B	A	C	D	C	C	D	C	C
Approach Vol, veh/h		191			719			434			378	
Approach Delay, s/veh		28.0			20.2			28.1			27.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	13.6		12.3	8.4	14.0		24.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	13.5	20.5		19.5	12.5	21.5		28.5
Max Q Clear Time (g_c+I1), s	5.3	7.4		7.4	5.0	6.4		16.8
Green Ext Time (p_c), s	0.1	1.6		0.7	0.1	1.4		2.7

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	46	2	4	13	6	11	31	3	13	24	22
Future Volume (veh/h)	13	46	2	4	13	6	11	31	3	13	24	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	14	50	0	4	14	0	12	34	0	14	26	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	294	125		296	126		99	198		87	174	
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.00	0.06	0.06	0.00	0.05	0.05	0.00
Sat Flow, veh/h	371	1326	1535	381	1334	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	64	0	0	18	0	0	12	34	0	14	26	0
Grp Sat Flow(s),veh/h/ln	1697	0	1535	1715	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.2	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.0
Prop In Lane	0.22		1.00	0.22		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	0		422	0		99	198		87	174	
V/C Ratio(X)	0.15	0.00		0.04	0.00		0.12	0.17		0.16	0.15	
Avail Cap(c_a), veh/h	3698	0		3667	0		2598	5183		2700	5386	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	7.0	0.0	0.0	7.6	7.6	0.0	7.7	7.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.8	0.4	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	0.0	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	7.4	0.0	0.0	7.1	0.0	0.0	8.1	8.0	0.0	8.5	8.1	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		64	A		18	A		46	A		40	A
Approach Delay, s/veh		7.4			7.1			8.0			8.2	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		5.5		6.1		5.4		6.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		25.5		34.5		26.5		34.5				
Max Q Clear Time (g_c+I1), s		2.2		2.6		2.1		2.2				
Green Ext Time (p_c), s		0.2		0.3		0.1		0.1				

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

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	65	1	14	37	8	32
Future Volume (veh/h)	65	1	14	37	8	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	71	0	15	0	9	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	146		113		21	643
Arrive On Green	0.08	0.00	0.06	0.00	0.01	0.35
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	71	0	15	0	9	35
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	0.6	0.0	0.1	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.6	0.0	0.1	0.0	0.1	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	146		113		21	643
V/C Ratio(X)	0.49		0.13		0.43	0.05
Avail Cap(c_a), veh/h	4029		3667		1773	6036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	0.0	7.1	0.0	7.9	3.4
Incr Delay (d2), s/veh	2.5	0.0	0.5	0.0	13.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.5	0.0	7.6	0.0	20.9	3.4
LnGrp LOS	A		A		C	A
Approach Vol, veh/h	71	A	15	A		44
Approach Delay, s/veh	9.5		7.6			7.0
Approach LOS	A		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.7	5.5			10.2	5.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	16.5	32.5			53.5	37.5
Max Q Clear Time (g_c+I1), s	2.1	2.1			2.2	2.6
Green Ext Time (p_c), s	0.0	0.0			0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	75	3	11	33	0	0	0	0	82	6	7
Future Vol, veh/h	0	75	3	11	33	0	0	0	0	82	6	7
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	82	3	12	36	0	0	0	0	89	7	8

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	189	11	232	193	-		0	0	0
Stage 1	-	189	-	0	0	-		-	-	-
Stage 2	-	0	-	232	193	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	699	1058	714	695	0		-	-	-
Stage 1	0	736	-	-	-	0		-	-	-
Stage 2	0	-	-	762	733	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	699	1058	648	695	-		-	-	-
Mov Cap-2 Maneuver	-	699	-	648	695	-		-	-	-
Stage 1	-	736	-	-	-	-		-	-	-
Stage 2	-	-	-	676	733	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.7	10.7	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	699	1058	683	-	-	-
HCM Lane V/C Ratio	0.117	0.003	0.07	-	-	-
HCM Control Delay (s)	10.8	8.4	10.7	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	0.4	0	0.2	-	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	121	0	0	24	49	8	5	7	0	0	0
Future Vol, veh/h	14	121	0	0	24	49	8	5	7	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	15	132	0	0	26	53	9	5	8	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8	7.1	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	40%	10%	0%
Vol Thru, %	25%	90%	33%
Vol Right, %	35%	0%	67%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	135	73
LT Vol	8	14	0
Through Vol	5	121	24
RT Vol	7	0	49
Lane Flow Rate	22	147	79
Geometry Grp	1	1	1
Degree of Util (X)	0.026	0.168	0.083
Departure Headway (Hd)	4.258	4.12	3.746
Convergence, Y/N	Yes	Yes	Yes
Cap	827	872	951
Service Time	2.353	2.144	1.792
HCM Lane V/C Ratio	0.027	0.169	0.083
HCM Control Delay	7.5	8	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.6	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	24	40	4	14	12	149	22	14	187	4
Future Volume (veh/h)	3	6	24	40	4	14	12	149	22	14	187	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	7	26	43	4	15	13	162	24	15	203	4
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	6	14	51	81	8	28	30	322	48	35	375	7
Arrive On Green	0.04	0.04	0.04	0.07	0.07	0.07	0.02	0.21	0.21	0.02	0.21	0.21
Sat Flow, veh/h	135	316	1172	1184	110	413	1753	1567	232	1753	1799	35
Grp Volume(v), veh/h	36	0	0	62	0	0	13	0	186	15	0	207
Grp Sat Flow(s),veh/h/ln	1623	0	0	1707	0	0	1753	0	1799	1753	0	1834
Q Serve(g_s), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.5	0.2	0.0	2.7
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.0	0.0	0.0	0.2	0.0	2.5	0.2	0.0	2.7
Prop In Lane	0.08		0.72	0.69		0.24	1.00		0.13	1.00		0.02
Lane Grp Cap(c), veh/h	71	0	0	117	0	0	30	0	370	35	0	382
V/C Ratio(X)	0.51	0.00	0.00	0.53	0.00	0.00	0.43	0.00	0.50	0.43	0.00	0.54
Avail Cap(c_a), veh/h	1224	0	0	1350	0	0	484	0	2150	484	0	2193
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	12.2	0.0	0.0	13.2	0.0	9.6	13.2	0.0	9.6
Incr Delay (d2), s/veh	5.5	0.0	0.0	3.6	0.0	0.0	9.4	0.0	1.1	8.4	0.0	1.2
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	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.7	0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	0.0	15.9	0.0	0.0	22.7	0.0	10.6	21.6	0.0	10.8
LnGrp LOS	B	A	A	B	A	A	C	A	B	C	A	B
Approach Vol, veh/h		36			62			199			222	
Approach Delay, s/veh		18.2			15.9			11.4			11.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	10.1		5.7	5.0	10.2		6.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	32.5		20.5	7.5	32.5		21.5				
Max Q Clear Time (g_c+I1), s	2.2	4.5		2.6	2.2	4.7		3.0				
Green Ext Time (p_c), s	0.0	1.1		0.1	0.0	1.2		0.2				

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	161	107	109	211	249	213
Future Volume (veh/h)	161	107	109	211	249	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	175	0	118	229	271	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	477		196	1758	744	
Arrive On Green	0.14	0.00	0.11	0.50	0.21	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	175	0	118	229	271	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.2	0.0	1.6	0.9	1.7	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.6	0.9	1.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	477		196	1758	744	
V/C Ratio(X)	0.37		0.60	0.13	0.36	
Avail Cap(c_a), veh/h	3576		1635	8951	5065	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.8	0.0	10.7	3.3	8.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	0.1	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	0.0	13.6	3.4	8.8	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	175	A		347	271	A
Approach Delay, s/veh	10.3			6.9	8.8	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	17.2		8.0	7.3	9.9
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	64.5		26.5	23.5	36.5
Max Q Clear Time (g_c+I1), s	2.9		3.2	3.6	3.7
Green Ext Time (p_c), s	1.6		0.6	0.3	1.9

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	123	563	0	0	210
Future Volume (veh/h)	64	123	563	0	0	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	70	134	612	0	0	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	283	252	1507	0	0	1507
Arrive On Green	0.16	0.16	0.43	0.00	0.00	0.43
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	70	134	612	0	0	228
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	0.8	1.7	2.7	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.8	1.7	2.7	0.0	0.0	0.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	283	252	1507	0	0	1507
V/C Ratio(X)	0.25	0.53	0.41	0.00	0.00	0.15
Avail Cap(c_a), veh/h	2739	2437	8948	0	0	8948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	8.1	8.5	4.3	0.0	0.0	3.8
Incr Delay (d2), s/veh	0.4	1.7	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.3	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	10.2	4.5	0.0	0.0	3.9
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h	204		612			228
Approach Delay, s/veh	9.6		4.5			3.9
Approach LOS	A		A			A

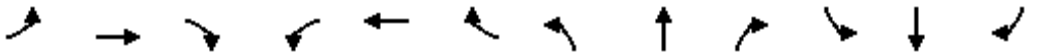
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	14.0			14.0	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	56.5			56.5	34.5
Max Q Clear Time (g_c+I1), s	4.7			2.9	3.7
Green Ext Time (p_c), s	4.9			1.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	31	11	71	40	212	47	299	30	67	106	63
Future Volume (veh/h)	102	31	11	71	40	212	47	299	30	67	106	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	34	12	77	43	230	51	325	33	73	115	68
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	50	186	240	134	326	93	591	60	119	432	239
Arrive On Green	0.12	0.12	0.12	0.21	0.21	0.21	0.05	0.18	0.18	0.07	0.20	0.20
Sat Flow, veh/h	1357	416	1560	1144	639	1560	1753	3208	323	1753	2170	1203
Grp Volume(v), veh/h	145	0	12	120	0	230	51	176	182	73	91	92
Grp Sat Flow(s),veh/h/ln	1773	0	1560	1783	0	1560	1753	1749	1782	1753	1749	1624
Q Serve(g_s), s	3.4	0.0	0.3	2.4	0.0	5.9	1.2	3.9	4.0	1.7	1.9	2.1
Cycle Q Clear(g_c), s	3.4	0.0	0.3	2.4	0.0	5.9	1.2	3.9	4.0	1.7	1.9	2.1
Prop In Lane	0.77		1.00	0.64		1.00	1.00		0.18	1.00		0.74
Lane Grp Cap(c), veh/h	212	0	186	373	0	326	93	322	329	119	348	323
V/C Ratio(X)	0.68	0.00	0.06	0.32	0.00	0.70	0.55	0.55	0.55	0.62	0.26	0.28
Avail Cap(c_a), veh/h	929	0	817	934	0	817	388	998	1017	510	1120	1040
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	16.8	14.4	0.0	15.7	19.8	15.9	15.9	19.5	14.5	14.6
Incr Delay (d2), s/veh	3.9	0.0	0.1	0.5	0.0	2.8	5.0	1.4	1.5	5.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.1	0.9	0.0	2.0	0.6	1.5	1.5	0.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	16.9	14.9	0.0	18.5	24.8	17.3	17.4	24.6	14.9	15.1
LnGrp LOS	C	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		157			350			409			256	
Approach Delay, s/veh		21.6			17.3			18.3			17.7	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	12.4		9.6	6.8	13.0		13.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	24.5		22.5	9.5	27.5		22.5
Max Q Clear Time (g_c+I1), s	3.7	6.0		5.4	3.2	4.1		7.9
Green Ext Time (p_c), s	0.1	1.9		0.7	0.0	1.0		1.3

Intersection Summary		
HCM 6th Ctrl Delay		18.3
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	5	15	2	14	39	2	92	11	37	71	17
Future Volume (veh/h)	99	5	15	2	14	39	2	92	11	37	71	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	108	5	0	2	15	0	2	100	0	40	77	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	507	8		214	205		185	368		204	406	
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.00	0.11	0.11	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1331	62	1535	165	1615	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	113	0	0	17	0	0	2	100	0	40	77	0
Grp Sat Flow(s),veh/h/ln	1393	0	1535	1780	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.4	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.2	0.0	0.0	0.0	0.6	0.0	0.4	0.4	0.0
Prop In Lane	0.96		1.00	0.12		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	515	0		419	0		185	368		204	406	
V/C Ratio(X)	0.22	0.00		0.04	0.00		0.01	0.27		0.20	0.19	
Avail Cap(c_a), veh/h	2675	0		3170	0		2194	4377		2029	4047	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.0	0.0	0.0	8.3	8.6	0.0	8.3	8.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	0.0	0.0	8.1	0.0	0.0	8.3	8.9	0.0	8.8	8.5	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		113	A		17	A		102	A		117	A
Approach Delay, s/veh		8.8			8.1			8.9			8.6	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		6.7		7.1		7.0		7.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		35.5		24.5		35.5				
Max Q Clear Time (g_c+I1), s		2.6		3.6		2.4		2.2				
Green Ext Time (p_c), s		0.5		0.6		0.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	8.7	
HCM 6th LOS	A	

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	14	115	170	9	31
Future Volume (veh/h)	74	14	115	170	9	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	80	0	125	0	10	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	158		275		23	748
Arrive On Green	0.09	0.00	0.15	0.00	0.01	0.41
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	80	0	125	0	10	34
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	0.8	0.0	1.1	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.8	0.0	1.1	0.0	0.1	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	158		275		23	748
V/C Ratio(X)	0.51		0.45		0.43	0.05
Avail Cap(c_a), veh/h	2896		4437		1092	6032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	0.0	7.0	0.0	8.9	3.2
Incr Delay (d2), s/veh	2.5	0.0	1.2	0.0	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.3	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.4	0.0	8.2	0.0	20.8	3.2
LnGrp LOS	B		A		C	A
Approach Vol, veh/h	80	A	125	A		44
Approach Delay, s/veh	10.4		8.2			7.2
Approach LOS	B		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.7	7.3				12.0	6.2
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	11.5	44.5				60.5	30.5
Max Q Clear Time (g_c+I1), s	2.1	3.1				2.2	2.8
Green Ext Time (p_c), s	0.0	0.7				0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	178	16	21	55	0	0	0	0	46	2	18
Future Vol, veh/h	0	178	16	21	55	0	0	0	0	46	2	18
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	193	17	23	60	0	0	0	0	50	2	20

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	112	12	217	122	-		0	0	0
Stage 1	-	112	-	0	0	-		-	-	-
Stage 2	-	0	-	217	122	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	771	1057	731	761	0		-	-	-
Stage 1	0	795	-	-	-	0		-	-	-
Stage 2	0	-	-	776	787	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	771	1057	580	761	-		-	-	-
Mov Cap-2 Maneuver	-	771	-	580	761	-		-	-	-
Stage 1	-	795	-	-	-	-		-	-	-
Stage 2	-	-	-	577	787	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	11	10.8	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	771	1057	701	-	-	-
HCM Lane V/C Ratio	0.251	0.016	0.118	-	-	-
HCM Control Delay (s)	11.2	8.5	10.8	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	1	0.1	0.4	-	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	86	154	0	0	51	111	19	7	25	0	0	0
Future Vol, veh/h	86	154	0	0	51	111	19	7	25	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	93	167	0	0	55	121	21	8	27	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.4	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	37%	36%	0%
Vol Thru, %	14%	64%	31%
Vol Right, %	49%	0%	69%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	51	240	162
LT Vol	19	86	0
Through Vol	7	154	51
RT Vol	25	0	111
Lane Flow Rate	55	261	176
Geometry Grp	1	1	1
Degree of Util (X)	0.073	0.312	0.196
Departure Headway (Hd)	4.721	4.305	3.997
Convergence, Y/N	Yes	Yes	Yes
Cap	762	824	902
Service Time	2.732	2.387	2.003
HCM Lane V/C Ratio	0.072	0.317	0.195
HCM Control Delay	8.1	9.4	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1.3	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	249	14	59	307	68	9	6	41	59	11	19
Future Volume (veh/h)	27	249	14	59	307	68	9	6	41	59	11	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	29	271	15	64	334	74	10	7	45	64	12	21
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	348	19	79	413	92	23	15	95	99	68	119
Arrive On Green	0.22	0.22	0.22	0.33	0.33	0.33	0.01	0.07	0.07	0.06	0.11	0.11
Sat Flow, veh/h	167	1563	87	241	1258	279	1753	214	1378	1753	601	1051
Grp Volume(v), veh/h	315	0	0	472	0	0	10	0	52	64	0	33
Grp Sat Flow(s),veh/h/ln	1817	0	0	1778	0	0	1753	0	1593	1753	0	1652
Q Serve(g_s), s	9.1	0.0	0.0	13.5	0.0	0.0	0.3	0.0	1.7	2.0	0.0	1.0
Cycle Q Clear(g_c), s	9.1	0.0	0.0	13.5	0.0	0.0	0.3	0.0	1.7	2.0	0.0	1.0
Prop In Lane	0.09		0.05	0.14		0.16	1.00		0.87	1.00		0.64
Lane Grp Cap(c), veh/h	404	0	0	584	0	0	23	0	110	99	0	186
V/C Ratio(X)	0.78	0.00	0.00	0.81	0.00	0.00	0.44	0.00	0.47	0.65	0.00	0.18
Avail Cap(c_a), veh/h	735	0	0	1007	0	0	161	0	610	211	0	680
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	17.1	0.0	0.0	27.3	0.0	24.9	25.7	0.0	22.3
Incr Delay (d2), s/veh	3.3	0.0	0.0	2.7	0.0	0.0	13.0	0.0	3.1	6.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	5.3	0.0	0.0	0.2	0.0	0.7	1.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	19.8	0.0	0.0	40.3	0.0	28.0	32.6	0.0	22.8
LnGrp LOS	C	A	A	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		315			472			62			97	
Approach Delay, s/veh		23.6			19.8			30.0			29.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	8.3		16.9	5.2	10.8		22.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.7	21.3		22.5	5.1	22.9		31.5				
Max Q Clear Time (g_c+I1), s	4.0	3.7		11.1	2.3	3.0		15.5				
Green Ext Time (p_c), s	0.0	0.2		1.4	0.0	0.1		2.8				

Intersection Summary			
HCM 6th Ctrl Delay		22.7	
HCM 6th LOS		C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	229	160	138	346	274	167
Future Volume (veh/h)	229	160	138	346	274	167
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	249	0	150	376	298	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	532		219	1787	768	
Arrive On Green	0.16	0.00	0.12	0.51	0.22	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	249	0	150	376	298	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.8	0.0	2.2	1.6	2.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	2.2	1.6	2.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	532		219	1787	768	
V/C Ratio(X)	0.47		0.68	0.21	0.39	
Avail Cap(c_a), veh/h	3458		1718	8210	4202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.4	0.0	11.3	3.6	9.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	3.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.8	0.2	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	0.0	15.1	3.7	9.3	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	249	A		526	298	A
Approach Delay, s/veh	11.0			6.9	9.3	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		18.3		8.7	7.9	10.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	26.5	32.5
Max Q Clear Time (g_c+I1), s		3.6		3.8	4.2	4.0
Green Ext Time (p_c), s		2.8		0.8	0.4	2.0

Intersection Summary		
HCM 6th Ctrl Delay		8.5
HCM 6th LOS		A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	89	762	0	0	306
Future Volume (veh/h)	73	89	762	0	0	306
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	79	97	828	0	0	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	244	217	1789	0	0	1789
Arrive On Green	0.14	0.14	0.51	0.00	0.00	0.51
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	79	97	828	0	0	333
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	1.0	1.5	3.9	0.0	0.0	1.3
Cycle Q Clear(g_c), s	1.0	1.5	3.9	0.0	0.0	1.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	244	217	1789	0	0	1789
V/C Ratio(X)	0.32	0.45	0.46	0.00	0.00	0.19
Avail Cap(c_a), veh/h	1872	1666	8623	0	0	8623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	10.2	4.0	0.0	0.0	3.4
Incr Delay (d2), s/veh	0.8	1.4	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.4	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.8	11.6	4.2	0.0	0.0	3.4
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	176		828			333
Approach Delay, s/veh	11.2		4.2			3.4
Approach LOS	B		A			A

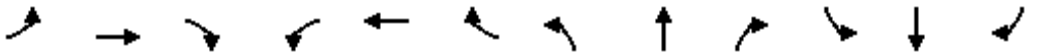
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	17.7			17.7	8.1
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	63.5			63.5	27.5
Max Q Clear Time (g_c+I1), s	5.9			3.3	3.5
Green Ext Time (p_c), s	7.3			2.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	42	19	191	76	392	83	275	41	87	195	62
Future Volume (veh/h)	114	42	19	191	76	392	83	275	41	87	195	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	124	46	21	208	83	426	90	299	45	95	212	67
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	172	64	207	422	169	519	116	475	71	123	420	129
Arrive On Green	0.13	0.13	0.13	0.33	0.33	0.33	0.07	0.16	0.16	0.07	0.16	0.16
Sat Flow, veh/h	1295	481	1560	1270	507	1560	1753	3053	455	1753	2634	810
Grp Volume(v), veh/h	170	0	21	291	0	426	90	170	174	95	139	140
Grp Sat Flow(s),veh/h/ln	1776	0	1560	1777	0	1560	1753	1749	1759	1753	1749	1695
Q Serve(g_s), s	5.3	0.0	0.7	7.6	0.0	14.6	2.9	5.3	5.4	3.1	4.2	4.4
Cycle Q Clear(g_c), s	5.3	0.0	0.7	7.6	0.0	14.6	2.9	5.3	5.4	3.1	4.2	4.4
Prop In Lane	0.73		1.00	0.71		1.00	1.00		0.26	1.00		0.48
Lane Grp Cap(c), veh/h	235	0	207	591	0	519	116	272	274	123	279	270
V/C Ratio(X)	0.72	0.00	0.10	0.49	0.00	0.82	0.77	0.62	0.64	0.77	0.50	0.52
Avail Cap(c_a), veh/h	595	0	522	870	0	764	376	646	650	376	646	626
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	22.2	15.5	0.0	17.8	26.7	23.0	23.0	26.6	22.3	22.4
Incr Delay (d2), s/veh	4.2	0.0	0.2	0.6	0.0	4.6	10.3	2.3	2.4	9.7	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.2	2.9	0.0	5.3	1.5	2.2	2.3	1.6	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	22.4	16.1	0.0	22.5	37.1	25.3	25.5	36.4	23.7	24.0
LnGrp LOS	C	A	C	B	A	C	D	C	C	D	C	C
Approach Vol, veh/h		191			717			434			374	
Approach Delay, s/veh		27.7			19.9			27.8			27.0	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	13.6		12.2	8.4	13.8		23.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	21.5		19.5	12.5	21.5		28.5
Max Q Clear Time (g_c+I1), s	15.1	7.4		7.3	4.9	6.4		16.6
Green Ext Time (p_c), s	0.1	1.7		0.7	0.1	1.4		2.8

Intersection Summary		
HCM 6th Ctrl Delay		24.3
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	55	2	5	16	10	13	60	6	43	32	26
Future Volume (veh/h)	16	55	2	5	16	10	13	60	6	43	32	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	17	60	0	5	17	0	14	65	0	47	35	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	271	142		274	142		155	309		159	318	
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.00	0.09	0.09	0.00	0.09	0.09	0.00
Sat Flow, veh/h	374	1321	1535	389	1324	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	77	0	0	22	0	0	14	65	0	47	35	0
Grp Sat Flow(s),veh/h/ln	1696	0	1535	1713	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.5	0.2	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.2	0.0	0.0	0.1	0.3	0.0	0.5	0.2	0.0
Prop In Lane	0.22		1.00	0.23		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	0		416	0		155	309		159	318	
V/C Ratio(X)	0.19	0.00		0.05	0.00		0.09	0.21		0.29	0.11	
Avail Cap(c_a), veh/h	3115	0		3083	0		2406	4801		2497	4982	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.9	0.0	0.0	7.7	0.0	0.0	7.9	8.0	0.0	8.0	7.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.0	1.0	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	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	0.0	0.0	7.7	0.0	0.0	8.2	8.4	0.0	9.1	8.1	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		77	A		22	A		79	A		82	A
Approach Delay, s/veh		8.1			7.7			8.3			8.6	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		6.2		6.5		6.3		6.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		32.5		27.5		32.5				
Max Q Clear Time (g_c+I1), s		2.3		2.8		2.5		2.2				
Green Ext Time (p_c), s		0.3		0.4		0.3		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			8.3									
HCM 6th LOS			A									

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	517	1	19	92	10	53
Future Volume (veh/h)	517	1	19	92	10	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	562	0	21	0	11	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	723		149		25	468
Arrive On Green	0.42	0.00	0.08	0.00	0.01	0.26
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	562	0	21	0	11	58
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	7.8	0.0	0.3	0.0	0.2	0.7
Cycle Q Clear(g_c), s	7.8	0.0	0.3	0.0	0.2	0.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	723		149		25	468
V/C Ratio(X)	0.78		0.14		0.44	0.12
Avail Cap(c_a), veh/h	3620		1462		340	2112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	0.0	11.9	0.0	13.6	7.9
Incr Delay (d2), s/veh	1.9	0.0	0.4	0.0	11.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.1	0.0	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	0.0	12.3	0.0	25.0	8.0
LnGrp LOS	A		B		C	A
Approach Vol, veh/h	562	A	21	A		69
Approach Delay, s/veh	8.8		12.3			10.7
Approach LOS	A		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.9	6.8			11.7	16.2
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5			32.5	58.5
Max Q Clear Time (g_c+I1), s	2.2	2.3			2.7	9.8
Green Ext Time (p_c), s	0.0	0.0			0.3	2.0

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	13.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	112	30	13	326	0	0	0	0	98	7	161
Future Vol, veh/h	0	112	30	13	326	0	0	0	0	98	7	161
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	122	33	14	354	0	0	0	0	107	8	175

Major/Minor	Minor2			Minor1				Major2		
Conflicting Flow All	-	310	96	387	397	-		0	0	0
Stage 1	-	310	-	0	0	-		-	-	-
Stage 2	-	0	-	387	397	-		-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-		4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-		-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-		-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-		2.254	-	-
Pot Cap-1 Maneuver	0	598	950	564	534	0		-	-	-
Stage 1	0	652	-	-	-	0		-	-	-
Stage 2	0	-	-	629	596	0		-	-	-
Platoon blocked, %									-	-
Mov Cap-1 Maneuver	-	598	950	459	534	-		-	-	-
Mov Cap-2 Maneuver	-	598	-	459	534	-		-	-	-
Stage 1	-	652	-	-	-	-		-	-	-
Stage 2	-	-	-	494	596	-		-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	11.8	25.7	
HCM LOS	B	D	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	598	950	531	-	-	-
HCM Lane V/C Ratio	0.204	0.034	0.694	-	-	-
HCM Control Delay (s)	12.6	8.9	25.7	-	-	-
HCM Lane LOS	B	A	D	-	-	-
HCM 95th %tile Q(veh)	0.8	0.1	5.4	-	-	-

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	150	0	0	81	59	244	6	8	0	0	0
Future Vol, veh/h	34	150	0	0	81	59	244	6	8	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	37	163	0	0	88	64	265	7	9	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.9	9	11.3
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	95%	18%	0%
Vol Thru, %	2%	82%	58%
Vol Right, %	3%	0%	42%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	258	184	140
LT Vol	244	34	0
Through Vol	6	150	81
RT Vol	8	0	59
Lane Flow Rate	280	200	152
Geometry Grp	1	1	1
Degree of Util (X)	0.39	0.275	0.2
Departure Headway (Hd)	5.011	4.956	4.736
Convergence, Y/N	Yes	Yes	Yes
Cap	715	722	753
Service Time	3.065	3.009	2.791
HCM Lane V/C Ratio	0.392	0.277	0.202
HCM Control Delay	11.3	9.9	9
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.9	1.1	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	7	29	48	5	17	14	204	26	17	227	5
Future Volume (veh/h)	4	7	29	48	5	17	14	204	26	17	227	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	8	32	52	5	18	15	222	28	18	247	5
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	8	15	60	92	9	32	34	381	48	41	435	9
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.02	0.24	0.24	0.02	0.24	0.24
Sat Flow, veh/h	147	295	1179	1184	114	410	1753	1602	202	1753	1798	36
Grp Volume(v), veh/h	44	0	0	75	0	0	15	0	250	18	0	252
Grp Sat Flow(s),veh/h/ln	1621	0	0	1708	0	0	1753	0	1804	1753	0	1834
Q Serve(g_s), s	0.8	0.0	0.0	1.3	0.0	0.0	0.2	0.0	3.6	0.3	0.0	3.6
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.3	0.0	0.0	0.2	0.0	3.6	0.3	0.0	3.6
Prop In Lane	0.09		0.73	0.69		0.24	1.00		0.11	1.00		0.02
Lane Grp Cap(c), veh/h	83	0	0	133	0	0	34	0	430	41	0	443
V/C Ratio(X)	0.53	0.00	0.00	0.56	0.00	0.00	0.44	0.00	0.58	0.44	0.00	0.57
Avail Cap(c_a), veh/h	1071	0	0	1243	0	0	386	0	2047	445	0	2143
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.1	0.0	0.0	14.3	0.0	9.9	14.2	0.0	9.8
Incr Delay (d2), s/veh	5.1	0.0	0.0	3.7	0.0	0.0	8.5	0.0	1.3	7.3	0.0	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	0.0	0.0	0.5	0.0	0.0	0.2	0.0	1.1	0.2	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	0.0	16.9	0.0	0.0	22.8	0.0	11.2	21.6	0.0	11.0
LnGrp LOS	B	A	A	B	A	A	C	A	B	C	A	B
Approach Vol, veh/h		44			75			265			270	
Approach Delay, s/veh		18.8			16.9			11.9			11.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	11.5		6.0	5.1	11.6		6.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	33.5		19.5	6.5	34.5		21.5				
Max Q Clear Time (g_c+I1), s	2.3	5.6		2.8	2.2	5.6		3.3				
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	1.5		0.3				

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	199	128	131	272	301	257
Future Volume (veh/h)	199	128	131	272	301	257
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	216	0	142	296	327	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	503		212	1822	820	
Arrive On Green	0.15	0.00	0.12	0.52	0.23	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	216	0	142	296	327	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	1.6	0.0	2.1	1.2	2.1	0.0
Cycle Q Clear(g_c), s	1.6	0.0	2.1	1.2	2.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	503		212	1822	820	
V/C Ratio(X)	0.43		0.67	0.16	0.40	
Avail Cap(c_a), veh/h	3190		1580	8427	4696	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.5	0.0	11.4	3.4	8.8	0.0
Incr Delay (d2), s/veh	0.6	0.0	3.6	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.8	0.1	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	0.0	15.1	3.4	9.1	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	216	A		438	327	A
Approach Delay, s/veh	11.1			7.2	9.1	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	18.7		8.5	7.8	10.9
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	65.5		25.5	24.5	36.5
Max Q Clear Time (g_c+I1), s	3.2		3.6	4.1	4.1
Green Ext Time (p_c), s	2.2		0.7	0.3	2.3

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	77	153	690	0	0	253
Future Volume (veh/h)	77	153	690	0	0	253
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	84	166	750	0	0	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	303	269	1653	0	0	1653
Arrive On Green	0.17	0.17	0.47	0.00	0.00	0.47
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	84	166	750	0	0	275
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	1.1	2.5	3.7	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.1	2.5	3.7	0.0	0.0	1.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	303	269	1653	0	0	1653
V/C Ratio(X)	0.28	0.62	0.45	0.00	0.00	0.17
Avail Cap(c_a), veh/h	2246	1999	8065	0	0	8065
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	9.1	9.7	4.5	0.0	0.0	3.8
Incr Delay (d2), s/veh	0.5	2.3	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.4	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.6	12.0	4.7	0.0	0.0	3.9
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h	250		750			275
Approach Delay, s/veh	11.2		4.7			3.9
Approach LOS	B		A			A

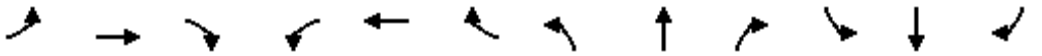
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	16.5			16.5	8.9
Change Period (Y+Rc), s	4.5			4.5	4.5
Max Green Setting (Gmax), s	58.5			58.5	32.5
Max Q Clear Time (g_c+I1), s	5.7			3.1	4.5
Green Ext Time (p_c), s	6.3			2.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	37	13	85	48	268	56	359	36	81	127	76
Future Volume (veh/h)	122	37	13	85	48	268	56	359	36	81	127	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	133	40	14	92	52	291	61	390	39	88	138	83
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	188	56	215	275	156	377	99	634	63	123	453	257
Arrive On Green	0.14	0.14	0.14	0.24	0.24	0.24	0.06	0.20	0.20	0.07	0.21	0.21
Sat Flow, veh/h	1363	410	1560	1140	644	1560	1753	3212	320	1753	2151	1219
Grp Volume(v), veh/h	173	0	14	144	0	291	61	211	218	88	111	110
Grp Sat Flow(s),veh/h/ln	1773	0	1560	1784	0	1560	1753	1749	1783	1753	1749	1621
Q Serve(g_s), s	4.7	0.0	0.4	3.4	0.0	8.9	1.7	5.6	5.7	2.5	2.7	2.9
Cycle Q Clear(g_c), s	4.7	0.0	0.4	3.4	0.0	8.9	1.7	5.6	5.7	2.5	2.7	2.9
Prop In Lane	0.77		1.00	0.64		1.00	1.00		0.18	1.00		0.75
Lane Grp Cap(c), veh/h	244	0	215	431	0	377	99	345	352	123	368	341
V/C Ratio(X)	0.71	0.00	0.07	0.33	0.00	0.77	0.61	0.61	0.62	0.72	0.30	0.32
Avail Cap(c_a), veh/h	748	0	659	788	0	689	361	876	893	430	944	876
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	19.1	15.9	0.0	18.0	23.5	18.7	18.7	23.2	16.9	17.0
Incr Delay (d2), s/veh	3.8	0.0	0.1	0.5	0.0	3.4	6.0	1.8	1.8	7.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.1	1.3	0.0	3.2	0.8	2.2	2.3	1.2	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	19.2	16.4	0.0	21.4	29.5	20.4	20.5	30.8	17.4	17.6
LnGrp LOS	C	A	B	B	A	C	C	C	C	C	B	B
Approach Vol, veh/h		187			435			490			309	
Approach Delay, s/veh		24.3			19.7			21.6			21.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.1	14.5		11.5	7.4	15.2		16.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	25.5		21.5	10.5	27.5		22.5
Max Q Clear Time (g_c+I1), s	4.5	7.7		6.7	3.7	4.9		10.9
Green Ext Time (p_c), s	0.1	2.4		0.8	0.1	1.2		1.5

Intersection Summary		
HCM 6th Ctrl Delay		21.3
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	6	18	3	17	73	2	114	13	49	106	20
Future Volume (veh/h)	119	6	18	3	17	73	2	114	13	49	106	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	129	7	0	3	18	0	2	124	0	53	115	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	493	10		206	223		208	416		249	496	
Arrive On Green	0.14	0.14	0.00	0.14	0.14	0.00	0.12	0.12	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1323	72	1535	173	1606	1535	1725	3441	1535	1725	3441	1535
Grp Volume(v), veh/h	136	0	0	21	0	0	2	124	0	53	115	0
Grp Sat Flow(s),veh/h/ln	1395	0	1535	1779	0	1535	1725	1721	1535	1725	1721	1535
Q Serve(g_s), s	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	0.7	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.2	0.0	0.0	0.0	0.7	0.0	0.6	0.7	0.0
Prop In Lane	0.95		1.00	0.14		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	0		428	0		208	416		249	496	
V/C Ratio(X)	0.27	0.00		0.05	0.00		0.01	0.30		0.21	0.23	
Avail Cap(c_a), veh/h	2520	0		2979	0		2019	4029		1791	3573	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.3	0.0	0.0	8.5	0.0	0.0	8.8	9.1	0.0	8.6	8.6	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	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	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.5	0.0	0.0	8.8	9.5	0.0	9.0	8.8	0.0
LnGrp LOS	A	A		A	A		A	A		A	A	
Approach Vol, veh/h		136	A		21	A		126	A		168	A
Approach Delay, s/veh		9.6			8.5			9.5			8.9	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		7.2		7.6		7.8		7.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5		36.5		23.5		36.5				
Max Q Clear Time (g_c+I1), s		2.7		4.1		2.7		2.2				
Green Ext Time (p_c), s		0.7		0.8		0.8		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			9.2									
HCM 6th LOS			A									

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	163	17	152	620	11	39
Future Volume (veh/h)	163	17	152	620	11	39
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	177	0	165	0	12	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	267		306		28	734
Arrive On Green	0.16	0.00	0.17	0.00	0.02	0.41
Sat Flow, veh/h	1725	1535	1811	1535	1725	1811
Grp Volume(v), veh/h	177	0	165	0	12	42
Grp Sat Flow(s),veh/h/ln	1725	1535	1811	1535	1725	1811
Q Serve(g_s), s	2.0	0.0	1.7	0.0	0.1	0.3
Cycle Q Clear(g_c), s	2.0	0.0	1.7	0.0	0.1	0.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	267		306		28	734
V/C Ratio(X)	0.66		0.54		0.43	0.06
Avail Cap(c_a), veh/h	1897		5179		464	6064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	0.0	7.8	0.0	10.0	3.7
Incr Delay (d2), s/veh	2.8	0.0	1.5	0.0	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	0.0	9.2	0.0	20.2	3.7
LnGrp LOS	B		A		C	A
Approach Vol, veh/h	177	A	165	A		54
Approach Delay, s/veh	10.9		9.2			7.4
Approach LOS	B		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.8	8.0				12.8	7.7
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	5.5	58.5				68.5	22.5
Max Q Clear Time (g_c+I1), s	2.1	3.7				2.3	4.0
Green Ext Time (p_c), s	0.0	1.0				0.2	0.4

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

Notes

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

Intersection	
Int Delay, s/veh	12.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↕	
Traffic Vol, veh/h	0	409	240	25	114	0	0	0	0	55	2	48
Future Vol, veh/h	0	409	240	25	114	0	0	0	0	55	2	48
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	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	445	261	27	124	0	0	0	0	60	2	52

Major/Minor	Minor2			Minor1					Major2		
Conflicting Flow All	-	148	28	501	174	-			0	0	0
Stage 1	-	148	-	0	0	-			-	-	-
Stage 2	-	0	-	501	174	-			-	-	-
Critical Hdwy	-	6.56	6.26	7.16	6.56	-			4.16	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	6.16	5.56	-			-	-	-
Follow-up Hdwy	-	4.054	3.354	3.554	4.054	-			2.254	-	-
Pot Cap-1 Maneuver	0	736	1036	474	712	0			-	-	-
Stage 1	0	767	-	-	-	0			-	-	-
Stage 2	0	-	-	545	747	0			-	-	-
Platoon blocked, %										-	-
Mov Cap-1 Maneuver	-	736	1036	184	712	-			-	-	-
Mov Cap-2 Maneuver	-	736	-	184	712	-			-	-	-
Stage 1	-	767	-	-	-	-			-	-	-
Stage 2	-	-	-	171	747	-			-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	14.3	16.2	
HCM LOS	B	C	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	736	1036	470	-	-	-
HCM Lane V/C Ratio	0.604	0.252	0.321	-	-	-
HCM Control Delay (s)	17.1	9.6	16.2	-	-	-
HCM Lane LOS	C	A	C	-	-	-
HCM 95th %tile Q(veh)	4.1	1	1.4	-	-	-

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	248	235	0	0	70	133	62	8	30	0	0	0
Future Vol, veh/h	248	235	0	0	70	133	62	8	30	0	0	0
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
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	270	255	0	0	76	145	67	9	33	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.9	9.3	9.8
HCM LOS	C	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	62%	51%	0%
Vol Thru, %	8%	49%	34%
Vol Right, %	30%	0%	66%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	100	483	203
LT Vol	62	248	0
Through Vol	8	235	70
RT Vol	30	0	133
Lane Flow Rate	109	525	221
Geometry Grp	1	1	1
Degree of Util (X)	0.169	0.677	0.276
Departure Headway (Hd)	5.609	4.645	4.5
Convergence, Y/N	Yes	Yes	Yes
Cap	636	777	794
Service Time	3.68	2.689	2.552
HCM Lane V/C Ratio	0.171	0.676	0.278
HCM Control Delay	9.8	16.9	9.3
HCM Lane LOS	A	C	A
HCM 95th-tile Q	0.6	5.4	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	299	17	71	368	82	11	11	49	71	35	23
Future Volume (veh/h)	32	299	17	71	368	82	11	11	49	71	35	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	35	325	18	77	400	89	12	12	53	77	38	25
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	41	384	21	89	460	102	26	20	89	99	113	75
Arrive On Green	0.25	0.25	0.25	0.37	0.37	0.37	0.01	0.07	0.07	0.06	0.11	0.11
Sat Flow, veh/h	168	1562	87	242	1257	280	1753	296	1309	1753	1036	682
Grp Volume(v), veh/h	378	0	0	566	0	0	12	0	65	77	0	63
Grp Sat Flow(s),veh/h/ln	1817	0	0	1778	0	0	1753	0	1605	1753	0	1718
Q Serve(g_s), s	13.5	0.0	0.0	20.2	0.0	0.0	0.5	0.0	2.7	3.0	0.0	2.3
Cycle Q Clear(g_c), s	13.5	0.0	0.0	20.2	0.0	0.0	0.5	0.0	2.7	3.0	0.0	2.3
Prop In Lane	0.09		0.05	0.14		0.16	1.00		0.82	1.00		0.40
Lane Grp Cap(c), veh/h	447	0	0	651	0	0	26	0	109	99	0	188
V/C Ratio(X)	0.85	0.00	0.00	0.87	0.00	0.00	0.46	0.00	0.59	0.78	0.00	0.34
Avail Cap(c_a), veh/h	599	0	0	847	0	0	131	0	496	152	0	551
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	20.1	0.0	0.0	33.3	0.0	30.9	31.8	0.0	28.1
Incr Delay (d2), s/veh	8.3	0.0	0.0	7.8	0.0	0.0	12.0	0.0	5.1	13.1	0.0	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	6.5	0.0	0.0	9.0	0.0	0.0	0.3	0.0	1.2	1.6	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	0.0	28.0	0.0	0.0	45.4	0.0	36.0	44.9	0.0	29.1
LnGrp LOS	C	A	A	C	A	A	D	A	D	D	A	C
Approach Vol, veh/h		378			566			77			140	
Approach Delay, s/veh		32.8			28.0			37.4			37.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	9.1		21.3	5.5	12.0		29.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.3	21.1		22.5	5.1	21.9		32.5				
Max Q Clear Time (g_c+I1), s	15.0	4.7		15.5	2.5	4.3		22.2				
Green Ext Time (p_c), s	0.0	0.2		1.3	0.0	0.2		2.8				

Intersection Summary		
HCM 6th Ctrl Delay	31.4	
HCM 6th LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	276	192	166	418	347	204
Future Volume (veh/h)	276	192	166	418	347	204
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	300	0	180	454	377	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	565		246	1869	854	
Arrive On Green	0.17	0.00	0.14	0.53	0.24	0.00
Sat Flow, veh/h	3401	1560	1753	3589	3589	1560
Grp Volume(v), veh/h	300	0	180	454	377	0
Grp Sat Flow(s),veh/h/ln	1700	1560	1753	1749	1749	1560
Q Serve(g_s), s	2.4	0.0	3.0	2.1	2.7	0.0
Cycle Q Clear(g_c), s	2.4	0.0	3.0	2.1	2.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	565		246	1869	854	
V/C Ratio(X)	0.53		0.73	0.24	0.44	
Avail Cap(c_a), veh/h	2997		1603	7502	3780	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	12.4	3.7	9.6	0.0
Incr Delay (d2), s/veh	0.8	0.0	4.1	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.1	0.3	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.2	0.0	16.5	3.8	10.0	0.0
LnGrp LOS	B		B	A	A	
Approach Vol, veh/h	300	A		634	377	A
Approach Delay, s/veh	12.2			7.4	10.0	
Approach LOS	B			A	A	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	20.6	9.5	8.7	11.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	64.5	26.5	27.5	32.5
Max Q Clear Time (g_c+I1), s	4.1	4.4	5.0	4.7
Green Ext Time (p_c), s	3.5	1.0	0.5	2.6

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	108	916	0	0	371
Future Volume (veh/h)	88	108	916	0	0	371
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	0	1841
Adj Flow Rate, veh/h	96	117	996	0	0	403
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	0	0	4
Cap, veh/h	243	217	1958	0	0	1958
Arrive On Green	0.14	0.14	0.56	0.00	0.00	0.56
Sat Flow, veh/h	1753	1560	3681	0	0	3681
Grp Volume(v), veh/h	96	117	996	0	0	403
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	0	0	1749
Q Serve(g_s), s	1.5	2.1	5.2	0.0	0.0	1.7
Cycle Q Clear(g_c), s	1.5	2.1	5.2	0.0	0.0	1.7
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	243	217	1958	0	0	1958
V/C Ratio(X)	0.39	0.54	0.51	0.00	0.00	0.21
Avail Cap(c_a), veh/h	1556	1384	7555	0	0	7555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	12.0	4.0	0.0	0.0	3.3
Incr Delay (d2), s/veh	1.0	2.1	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	0.6	0.0	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.8	14.1	4.3	0.0	0.0	3.3
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	213		996			403
Approach Delay, s/veh	13.5		4.3			3.3
Approach LOS	B		A			A

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	21.2				21.2	8.6
Change Period (Y+Rc), s	4.5				4.5	4.5
Max Green Setting (Gmax), s	64.5				64.5	26.5
Max Q Clear Time (g_c+I1), s	7.2				3.7	4.1
Green Ext Time (p_c), s	9.5				3.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	50	23	229	91	472	100	330	49	108	234	74
Future Volume (veh/h)	137	50	23	229	91	472	100	330	49	108	234	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	54	25	249	99	513	109	359	53	117	254	80
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	191	69	228	465	185	570	140	493	72	150	439	135
Arrive On Green	0.15	0.15	0.15	0.37	0.37	0.37	0.08	0.16	0.16	0.09	0.17	0.17
Sat Flow, veh/h	1303	472	1560	1272	506	1560	1753	3061	448	1753	2633	810
Grp Volume(v), veh/h	203	0	25	348	0	513	109	204	208	117	167	167
Grp Sat Flow(s),veh/h/ln	1776	0	1560	1777	0	1560	1753	1749	1760	1753	1749	1695
Q Serve(g_s), s	8.2	0.0	1.0	11.5	0.0	23.2	4.5	8.2	8.4	4.9	6.5	6.8
Cycle Q Clear(g_c), s	8.2	0.0	1.0	11.5	0.0	23.2	4.5	8.2	8.4	4.9	6.5	6.8
Prop In Lane	0.73		1.00	0.72		1.00	1.00		0.25	1.00		0.48
Lane Grp Cap(c), veh/h	260	0	228	649	0	570	140	282	284	150	292	283
V/C Ratio(X)	0.78	0.00	0.11	0.54	0.00	0.90	0.78	0.72	0.73	0.78	0.57	0.59
Avail Cap(c_a), veh/h	465	0	408	728	0	639	271	458	461	294	481	466
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	27.6	18.6	0.0	22.3	33.6	29.7	29.7	33.4	28.6	28.7
Incr Delay (d2), s/veh	5.1	0.0	0.2	0.7	0.0	14.8	9.0	3.5	3.7	8.5	1.8	2.0
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	3.8	0.0	0.4	4.6	0.0	10.2	2.2	3.6	3.7	2.4	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	27.8	19.3	0.0	37.1	42.6	33.2	33.4	41.9	30.3	30.7
LnGrp LOS	D	A	C	B	A	D	D	C	C	D	C	C
Approach Vol, veh/h		228			861			521			451	
Approach Delay, s/veh		34.9			29.9			35.2			33.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.9	16.5		15.4	10.4	16.9		31.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.5	19.5		19.5	11.5	20.5		30.5
Max Q Clear Time (g_c+I1), s	10.9	10.4		10.2	6.5	8.8		25.2
Green Ext Time (p_c), s	0.1	1.6		0.8	0.1	1.5		2.1

Intersection Summary		
HCM 6th Ctrl Delay		32.6
HCM 6th LOS		C