TRANSPORTATION ASSESSMENT FOR THE 4112 DEL REY AVENUE RESIDENTIAL PROJECT

LOS ANGELES, CALIFORNIA

JANUARY 2023

PREPARED FOR

MDR INVESTORS LLC

PREPARED BY

Gibson
transportation consulting, inc.

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January 2023

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GIBSON TRANSPORTATION CONSULTING, INC.
555 W. 5th Street, Suite 3375
Los Angeles, California 90013
(213) 683-0088

Ref: J2005

Chapter 1
Introduction

This study presents the transportation assessment for the proposed 4112 Del Rey Avenue Residential Development (Project) located in the *Palms – Mar Vista – Del Rey Community Plan* (Los Angeles Department of City Planning [LADCP], 1997) area of the City of Los Angeles (City). The methodology and base assumptions used in the analysis were established pursuant to direction from the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

MDR Investors, LLC (Applicant) proposes construction of a new six-story development with approximately 210 multi-family residential units. The Project Site is located in City Council District 11 and is assigned Assessor Parcel Numbers 4230-005-005, 4230-005-047, and 4230-005-048 in the Los Angeles County Assessor's records. The Project would replace 62,467 square feet (sf) of existing building space (of which 20,789 sf of office space and 11,076 sf of manufacturing space is actively in use) and a surface parking lot.

The Project would provide 282 vehicular parking spaces and 142 bicycle parking spaces in an above ground parking structure. Vehicular access to the Project Site would be provided via a new driveway on Del Rey Avenue located on the north side of the Project Site. The Project would also provide an off-street loading area to accommodate mail delivery and moving trucks. Passenger pick-up and drop-off would occur curbside on Del Rey Avenue. The existing five driveways at the Project Site would be removed. Pedestrian access to the residential lobby and ground floor lofts would also be provided along Del Rey Avenue. Access to the bicycle parking would be provided through pedestrian and vehicular access points. The Project Site plan is shown in Figure 1.

According to *Mobility Plan 2035: An Element of the General Plan* (LADCP, January 2016) (Mobility Plan), Del Rey Avenue is a Local Street with a right-of-way (ROW) width requirement of 60 feet, including a paved width of 36 feet (half roadway width of 18 feet) and 12-foot wide sidewalks. The existing half roadway width along Del Rey Avenue is approximately 18 feet and the existing sidewalk on the east side, adjacent to the Project Site, is approximately seven feet. No sidewalk is provided on the west side. Thus, the Applicant is required to provide an approximate five-foot dedication along with sidewalk widening to meet the long-term goals of the Mobility Plan. In addition, the Project would include a 10-foot setback along Del Rey Avenue for landscaping and pedestrian amenities.

The Project is anticipated to be completed and operational in Year 2026.

PROJECT LOCATION

As illustrated in Figure 2, the Project Site is adjacent to commercial and residential uses to the north and east, an industrial shipping center to the south, and Del Rey Avenue to the west. The Project Site is located approximately 0.25 miles north of the Marina Expressway (SR 90) and 2.15 miles west of the San Diego Freeway (I-405), both of which provide regional access throughout the City.

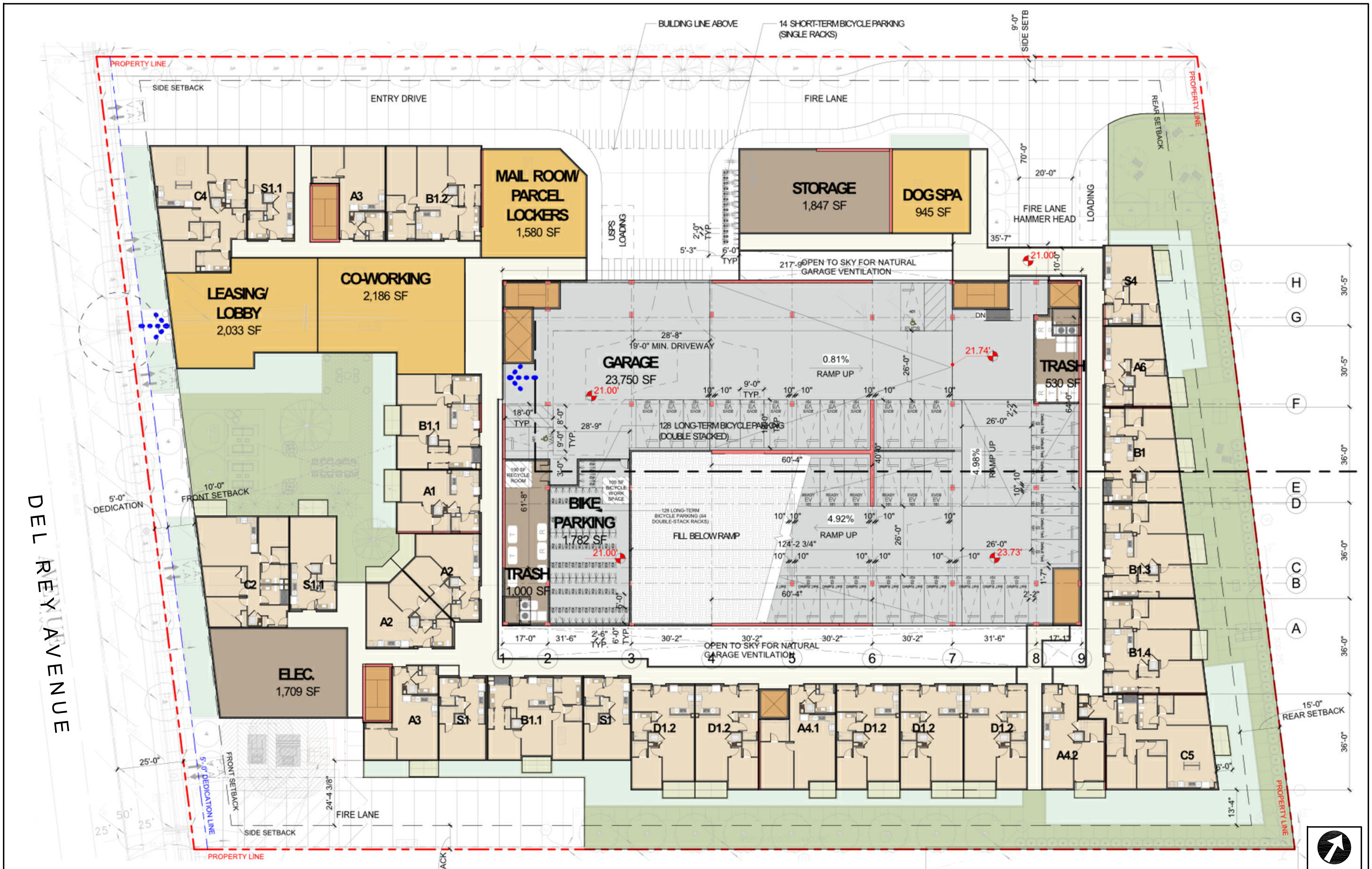
STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, updated August 2022) (TAG) and in compliance with the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Section 15000 and following).

The base assumptions and technical methodologies (i.e., vehicle miles traveled [VMT], trip generation, study locations, analysis methodology, etc.) were identified and agreed to in a Transportation Assessment Memorandum of Understanding (MOU), which was reviewed and approved by LADOT on September 6, 2022. A copy of the signed MOU is provided in Appendix A. The MOU was also sent to Culver City transportation staff, in accordance with the TAG, because the Project Site is located within 0.25 miles of the Culver City border.

ORGANIZATION OF REPORT

This report is divided into six chapters, including this introduction. Chapter 2 describes the Project Context including the study area and existing and future cumulative transportation conditions. Chapter 3 presents the Project Traffic including the Project trip generation, trip distribution, and trip assignment. Chapter 4 details the CEQA Analysis of Transportation Impacts including TAG Thresholds T-1 through T-3 and the LADOT Freeway Safety Analysis. Chapter 5 discusses the non-CEQA Transportation Analyses including the pedestrian, bicycle, and transit assessments, Project access, safety, and circulation assessments, residential street cut-through analysis, construction impact analysis, and parking analysis. Finally, Chapter 6 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.



Source: TCA Architects. September, 2022.

PROJECT SITE PLAN

FIGURE 1

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PROJECT SITE LOCATION	FIGURE 2

Chapter 2
Project Context

A comprehensive data collection effort was undertaken to develop a detailed description of existing and future conditions in the Project study area. The Existing Conditions analysis includes an assessment of the existing street system, an analysis of traffic volumes and current operating conditions, and an assessment of the existing public transit service, as well as pedestrian and bicycle circulation, at the time of preparation of this report in Year 2022. An inventory of lane configurations, signal phasing, parking restrictions, etc., for the analyzed intersections was also collected, along with peak period traffic counts.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project Conditions in Year 2026, which corresponds to anticipated occupancy of the Project.

STUDY AREA

As listed in Table 1 and shown in Figure 3, a total of six Study Intersections were identified, in consultation with LADOT and the City of Culver City, for detailed analysis. The existing lane configurations at the analyzed intersections are provided in Figure 4.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including freeways, arterials, collector, and local streets that provide regional, sub-regional, or local access and circulation within the Study Area. These transportation facilities generally provide two to six travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and between 55 and 65 mph on freeways.

Street classifications for City roadways are designated in the Mobility Plan. The Mobility Plan defines specific street standards in an effort to provide an enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the Mobility Plan, street classifications are defined as follows:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest Arterial Streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a ROW width of 136 feet and pavement width of 100 feet.
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph, and generally includes a ROW width of 110 feet, and pavement widths of 80 feet.
    - Avenues are typically narrow arterials that pass through both residential and commercial areas and include three categories:
        - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph, with a ROW width of 100 feet and pavement width of 70 feet.
        - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph, with a ROW width of 86 feet and pavement width of 56 feet.
        - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph, with a ROW width of 72 feet and pavement width of 46 feet.
- Collector Streets are generally located in residential neighborhoods and provide access to and from Arterial Streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph, with a ROW width generally at 66 feet and pavement width of 40 feet.

- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Pavement widths may vary between 30-36 feet within a ROW width of 50-60 feet.

Roadway classifications within Culver City are designated in *Culver City General Plan Circulation Element* (Culver City, September 1996) (Culver City Circulation Element) and are identified as follows:

- Freeways are specialized arterials with limited access and are grade-separated from the Culver City's street system. Their primary function is to carry large volumes of traffic at high speed throughout the region.

- Primary Arteries are major cross-town thoroughfares with desired ROW widths of 95 feet or more. Traffic flow on Primary Arteries is characterized as high volume and fast-moving. Direct access onto Primary Arteries from private driveways should be limited or prohibited. Where private driveways are prohibited, Primary Arteries are designed as controlled access streets.

- Secondary Arteries are links between Collectors and Primary Arteries with desired right-of-way widths of 80 to 94 feet.

- Collectors are streets providing a means for the movement of traffic from Local Streets to larger streets with desired ROW widths of 60 to 79 feet. Currently no streets in the Study Area are designated Collector Streets.

- Neighborhood Feeders are streets generally located within residential neighborhoods and provide the commonly used direct route between Local Streets and the adjacent arteries.

- Local Streets are streets providing access for vehicles to travel between private parking and driveways to larger, non-Local Streets. Generally, Local Streets do not exceed 60 feet of right-of-way widths and are mostly in residential neighborhoods.

Primary regional access to the Project Site is provided by SR 90. In proximity to the Project Site, the Study Area is served by arterial streets such as Washington Boulevard, Lincoln Boulevard, and Maxella Avenue. The following is a brief description of the roadways in the Study Area, including their classifications under the Mobility Plan or Culver City Circulation Element, as applicable:

- Lincoln Boulevard – Lincoln Boulevard is a designated Boulevard I in the Mobility Plan and travels in the north-south direction. It is located to the west of the Project Site and provides between four and six travel lanes, two to three lanes in each direction, with a two-way left-turn median. At major intersections within the Study Area, two left-turn lanes are provided. Unmetered parking with peak hour restrictions is generally available on the west side of the street and unmetered parking without peak hour restrictions is generally available on the east side of the street. Inside lanes are typically 10 feet wide and the total paved width of the street varies between approximately 76 and 102 feet wide.

- Washington Boulevard – Washington Boulevard is a designated Boulevard II in the Mobility Plan and a Primary Artery in the Culver City Circulation Element . It travels in the east-west direction and is located to the north of the Project Site. It generally provides four travel lanes, two lanes in each direction, with a two-way left-turn median. Unmetered parking with peak hour restrictions is generally available on the south side of the street and unmetered parking without peak hour restriction is generally available on the north side of the street west of Lincoln Boulevard. Metered parking is generally available on the south side of the street and parking is generally prohibited on the north side of the street east of Lincoln Boulevard. Inside travel lanes are typically 10 feet wide and the total paved width of the street varies between approximately 78 and 80 feet wide.

- Del Rey Avenue – Del Rey Avenue is a designated Local Street in the Mobility Plan and travels in the north-south direction. It is located adjacent to the Project Site and provides two travel lanes, one in each direction. Unmetered parking is generally available on both sides of the street. The total paved width of the street is approximately 40 feet wide.

- Glencoe Avenue – Glencoe Avenue is a designated Modified Avenue II north of Maxella Avenue and a designated Collector Street south of Maxella Avenue in the Mobility Plan and runs in the north-south direction and is located east of the Project Site. It generally provides four travel lanes, two lanes in each direction, with left-turn lanes at major intersections. Unmetered parking is generally available on both sides of the street. The total paved width of the street varies between approximately 40 and 72 feet wide.

- Maxella Avenue – Maxella Avenue is a designated Avenue III west of Glencoe Avenue and a designated Collector Street east of Glencoe Avenue in the Mobility Plan. It runs in the east-west direction and is located to the south of the Project Site. It generally provides four travel lanes, two lanes in each direction, with a two-way left-turn median. Limited unmetered parking is available on the south side of the street. Inside lane widths are typically 10 feet wide and the total paved width of the street varies between approximately 44 and 64 feet wide.

The existing mobility facilities at each of the analyzed Study Intersections are detailed in Figure 5 and the Mobility Plan and Culver City Circulation Element street designations within the Study Area are shown in Figure 6.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by Walk Score and assigned a score out of 100 points. With the various commercial businesses and cultural facilities adjacent to residential neighborhoods, the walkability of the area is approximately 85 points.[1]

Adjacent to the Project Site, Del Rey Avenue has sidewalks that do not meet their designated width for a Local Street and the western sidewalk is missing. Additionally, some portions of sidewalk throughout the Study Area are cracked or broken. Further, multiple intersections are missing accessible ramps with tactile strips.

The pedestrian facilities provided at the Study Intersections are further detailed in Figure 5. Pedestrian destinations, including various commercial uses located along Lincoln Boulevard, within 0.25 miles of the Project Site are illustrated in Figure 6.

Existing Bicycle System

Based on *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (LADCP, adopted March 1, 2011) (2010 Bicycle Plan), the existing bicycle system consists of a limited network of bicycle lanes (Class II) and bicycle routes (Class III). Class II bicycle lanes are a component of street design with dedicated striping to separate vehicular traffic from bicycle traffic. Class III bicycle routes and bicycle-friendly streets are those where motorists and cyclists share the roadway and there is no separated striping for bicycle travel. Bicycle routes and bicycle-friendly streets are preferably placed on Collector and lower volume Arterial Streets. Bicycle routes with shared lane markings, or “sharrows”, remind bicyclists to ride farther from parked cars to prevent collisions, increase motorists’ awareness that bicycles may be in the travel lane, and shows bicyclists the correct direction of travel. There is currently a Class II bicycle lane along Washington Boulevard within the Study Area, as shown in Figure 5.

The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan. The Mobility Plan consists of a Low-Stress Bikeway System and a Bicycle Lane Network (BLN). The Low-Stress Bikeway System is comprised of the Bicycle Enhanced Network (BEN), the Neighborhood Enhanced Network (NEN), and Bicycle Paths. The BEN includes

[1] Walk Score (www.walkscore.com) rates the Project Site with a score of 85 of 100 possible points (scores accessed on September 14, 2022, for 4112 Del Rey Avenue). Walk Score calculates the walkability of specific addresses by considering the ease of living in the neighborhood with a reduced reliance on automobile travel.

protected bicycle lanes (Class IV), which provide bicycle infrastructure including cycle tracks, bicycle traffic signals, and demarcated areas to facilitate turns at intersections and along neighborhood streets. These Class IV networks typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. The NEN and Bicycle Paths are relatively unchanged from the 2010 Bicycle Plan.

In June 2020, Culver City adopted *Culver City Bicycle & Pedestrian Action Plan*, which updated the former *Culver City Bicycle and Pedestrian Master Plan*. Both plans use the same bicycle network designations (Class I, II, III, and IV) as the Mobility Plan; however, no distinction is made between the BLN and BEN. Instead, *Culver City Bicycle & Pedestrian Action Plan* has one set of bikeway recommendations, which includes sharrows, lanes, separated paths, and protected lanes.

Within the Study Area, bicycle sharrows are provided on Washington Boulevard, as shown in Figure 5.

Existing Transit System

The Project Study Area is served by bus lines operated by Santa Monica Big Blue Bus and Culver CityBus. Figure 7 illustrates the existing transit service and transit stops within the Study Area. Table 2 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and the frequency of service between 6:00 AM and 9:00 AM and between 3:00 PM and 7:00 PM, the morning and evening transit peak periods as defined by the Southern California Association of Governments (SCAG) and the City.

The Project is located within 0.5 miles of a High-Quality Transit Corridor, which is defined by SCAG as a single corridor with bus service with at least 15-minute frequency in at least one direction during .the transit peak periods. Santa Monica Big Blue Bus Local Route 3 meets the criteria as detailed in Appendix B.

Many of the public transit stops in the vicinity of the Project Site are not equipped with shelters for rain or shade, and some do not have benches. For example, the stop for Santa Monica Big Blue Bus Route 3 and Rapid 3 on Lincoln Boulevard south of Washington Boulevard northwest of the Project Site does not provide benches or shelter.

<u>Vision Zero</u>

As described in the City's *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate transportation-related collisions that result in severe injury or death. Vision Zero has identified the High Injury Network (HIN), a network of streets included based on collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. The following corridors within the Study Area have been identified as part of the HIN:

- Lincoln Boulevard
- Washington Boulevard east of Lincoln Boulevard

<u>Existing Traffic Volumes</u>

Traffic count data collection is generally conducted during times with typical travel demand patterns (i.e., when local schools are in session, businesses are in full operation, weeks without holidays, etc.) Due to the ongoing Safer at Home / Safer LA: Emergency Orders[2] in response to the COVID-19 pandemic, typical traffic patterns are disrupted and LADOT requests that an adjustment factor be applied to new traffic count data to more closely represent pre-pandemic volumes.

Historical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak hour traffic count data collected between Year 2017 to 2019 were available at four of the six Study Intersections. New traffic counts were also collected at all six Study Intersections in June 2022 while schools were still in session, but during the ongoing emergency orders.

[2] The standing public health orders issued by the City and/or Los Angeles County beginning March 2020 and remaining in effect until further notice.

To calibrate the traffic volume data, the traffic volumes at the four intersections with historical data were totaled for each peak hour and a comparison was made between the June 2022 traffic counts and the historical counts. This difference represents the pre-pandemic traffic adjustment factor to estimate what the traffic volumes may be under non-pandemic conditions. This comparison indicated that the estimated traffic volumes based on historical counts were, on average, 16% higher historically than in June 2022.

Thus, the traffic data collected in June 2022 was increased by 16% during both peak hour periods to simulate Existing Conditions under typical traffic patterns. These volumes, representing Existing Conditions in Year 2022, are illustrated in Figure 8. The pandemic traffic factoring table approved in the MOU is provided in Table 5 of Appendix A, and the traffic count data is provided in Appendix C.

FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

The forecast of Future without Project Conditions was prepared in accordance with procedures outlined in the TAG. Specifically, two requirements are provided for developing the cumulative traffic volume forecast:

> “The Transportation Assessment must estimate ambient traffic conditions for the study horizon year selected during the scoping phase and recorded in the executed MOU. The study must clearly identify the horizon year and annual ambient growth rate used for the study. The horizon year should align with the development project’s expected completion year. For development projects constructed in phases over several years, the Transportation Assessment should analyze intermediary milestones before the buildout and completion of the project. The annual ambient growth rate shall be determined by LADOT staff during the scoping process and can be based on an adopted TSP, the most recent SCAG regional transportation model, the citywide transportation model, or other empirical information approved by LADOT.
>
> “The Transportation Assessment must consider related projects. For related development projects, this should include the associated trip generation for known development projects within one-half mile (2,640 foot) radius of the project site and one-quarter mile (1,320 foot) radius of the farthest outlying study intersections. Consultation with the Department of City Planning and LADOT may be required to compile the related projects list. The City’s ZIMAS database can be used to assist in identifying development projects that have submitted applications to the City of Los Angeles. Project access and circulation constraints would be determined by adding project-generated trips to future base traffic volumes including ambient growth and related projects and conducting the operational analysis.”

As described in detail below, this analysis includes increases to traffic from future projects and from regional growth projections. The ambient growth factor discussed below likely includes some traffic increases resulting from the Related Projects. Therefore, through some inherent double-counting of vehicles, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

The Future without Project traffic volumes, therefore, include ambient growth, which reflects increases in traffic due to regional growth and development outside the Study Area, as well as traffic generated by ongoing or entitled projects near or within the Study Area.

Ambient Traffic Growth

Existing traffic is expected to increase as a result of regional growth and development outside the Study Area. Based on discussions with LADOT during the MOU process, an ambient growth factor of 1% per year compounded annually was applied to the existing traffic volumes to reflect the effects of the regional growth and development by Year 2026. The total adjustment applied over the five-year period between Year 2022 and the anticipated buildout year of the Project was 4.06%. This growth factor accounts for increases in traffic due to potential projects plus projects not yet proposed and projects located outside the Study Area. This rate exceeds the regional traffic growth forecasts of *2010 Congestion Management Program* (Los Angeles County Metropolitan Transportation Authority [Metro], 2010), which projects 0.99% overall between 2020 and 2025 (0.20% per year) for the West/Central Los Angeles area and, therefore, is conservative.

Related Projects

In accordance with the CEQA Guidelines, this study also considered the effects of the Project on other developments either proposed, approved, or under construction (collectively, the Related Projects). Including this analysis step, the potential impact of the Project was evaluated within the context of past, present, and probable future developments capable of producing cumulative impacts. In accordance with the procedures outlined in the TAG, Related Projects within 0.50 miles of the Project Site were considered for analysis. The list of Related Projects is based on information provided by LADCP and LADOT in June 2022, as well as recent studies of development projects in the area. No Related Projects were identified within 0.5 miles of the Project Site in Culver City. The Related Projects are detailed in Table 3 and their approximate locations shown in Figure 9.

Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this study and conservatively assumed to be completed by the Project buildout Year 2026. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, overestimates the actual traffic volume growth in the area that would likely occur in the years prior to Project buildout. With the addition of the 4.06% ambient growth factor, which as previously discussed likely overstates traffic growth by itself, the Future without Project Condition is even more conservative. Further, it exceeds CEQA requirements to include ambient growth or Related Project traffic, but not both, in the forecasting of future conditions.

The development of estimated traffic volumes added to the Study Intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

<u>Trip Generation</u>. Trip generation estimates for the Related Projects were provided by LADOT. The Related Projects trip generation estimates summarized in Table 3 are conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (e.g., transit, bus, bicycling, walking, carpool, etc.) Further, in many cases, they do not account for the internal capture trips within a multi-use development or for the interaction of trips between multiple Related Projects, in which one Related Project serves as the origin for a trip destined for another Related Project.

<u>Trip Distribution</u>. The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These include the type and density of the proposed land uses, the geographic distribution of the population from which the residents of the proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Traffic Assignment. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 10 shows the peak hour traffic volumes associated with these Related Projects at the Study Intersections.

Future without Project Traffic Volumes

The Future without Project Conditions peak hour traffic volumes are the combination of Existing Conditions traffic volumes, ambient growth, and Related Project traffic. These volumes at the Study Intersections are shown in Figure 11.

Future Roadway Improvements

The analysis of Future Conditions considered roadway improvements that were funded and reasonably expected to be implemented prior to the buildout of the Project. Any roadway improvement that would result in changes to the physical configuration at the Study Intersections would be incorporated into the analysis. Other proposed traffic / trip reduction strategies such as transportation demand management (TDM) programs for individual buildings and developments were omitted from the Future Conditions analyses. The following plans were evaluated for their potential effects on the future roadway configurations.

Mobility Plan. In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The specific improvements that may be implemented in those networks have not yet been identified and there is no schedule for implementation; therefore, no changes to intersection lane configurations were made because of the Mobility Plan. However, the following mobility-enhanced networks include corridors within the Study Area, as depicted in Figure 12:

- Transit Enhanced Network (TEN): The TEN aims to improve existing and future bus services through reliable and frequent transit service in order to increase transit ridership, reduce single-occupancy vehicle trips, and integrate transit infrastructure investments within the surrounding street system. Lincoln Boulevard has been designated as part of the TEN.

- NEN: The NEN reflects the synthesis of the bicycle and pedestrian networks and serves as a system of Local Streets that are slow moving and safe enough to connect neighborhoods through active transportation. Glencoe Avenue and Maxella Avenue have been designated as part of the NEN.

- BEN/BLN: Within the Study Area, no streets have been designated as part of the BEN and Washington Boulevard and Lincoln Boulevard have been designated as part of the BLN.

- Pedestrian Enhanced District (PED): The Mobility Plan aims to promote walking to reduce the reliance on automobile travel by providing more attractive and pedestrian-friendly sidewalks, as well as adding pedestrian signalizations, street trees, and pedestrian-oriented design features. Several streets within the Study Area, including Lincoln Boulevard, Washington Boulevard, and Maxella Avenue, are designated PEDs, where pedestrian improvements could be prioritized to provide better connectivity to and from major destinations within communities.

Safe Routes to School. The Safe Routes to School (SRTS) program seeks to enhance pedestrian safety and comfort on routes to and from school. The program invests in "school zone projects, neighborhood street projects and traffic safety education" and includes improvements such as continental and scramble crosswalks, curb extensions and ramps, rectangular rapid flashing beacons, traffic signals, and bicycle facilities.

Currently, there are no schools selected in the Study Area for SRTS improvements; thus, no changes to the future intersection configurations were considered due to this program.

TABLE 1
LIST OF ANALYZED INTERSECTIONS

No.	North / South Street	East / West Street
1.	Lincoln Boulevard	Washington Boulevard
2.	Del Rey Avenue	Washington Boulevard
3.	Glencoe Avenue	Washington Boulevard
4.	Lincoln Boulevard	Maxella Avenue
5.	Del Rey Avenue	Maxella Avenue
6.	Glencoe Avenue	Maxella Avenue

TABLE 2
EXISTING TRANSIT SERVICE IN STUDY AREA

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Frequency (minutes) [a]			
				Morning Peak Period		Afternoon Peak Period	
				NB/EB	SB/WB	NB/EB	SB/WB
Santa Monica Big Blue Bus							
3	El Segundo to Santa Monica via Lincoln Boulevard	Local	4:30 A.M. - 11:30 P.M.	15	15	15	15
R3	El Segundo to Santa Monica via Lincoln Boulevard	Rapid	6:00 A.M. - 6:00 P.M. [b]	16	15	15	15
16	Marina Del Rey to Santa Monica passing near Project on Glencoe Ave and Washington Blvd	Local	6:30 A.M. - 7:00 P.M.	25	25	30	20
Culver City Bus							
1	Culver City to Venice via Washington Boulevard	Local	6:00 A.M. - 11:00 P.M.	18	18	16	15
2	Mar Vista to Fox Hills Mall passing near Project on Washington Boulevard	Local	6:00 A.M. - 6:00 P.M. [c]	60	40	60	60
5	Culver City to Mar Vista ending at Lincoln Blvd & Washington Blvd	Local	[d]	N/A	N/A	N/A	N/A
7	Culver City to Marina Del Rey passing near Project on Maxella Avenue	Local	7:00 A.M. - 6:00 P.M.	45	45	43	43

Notes:

Morning peak period from 6:00 AM to 9:00 AM, afternoon peak period from 3:00 PM to 7:00 PM consistent with Southern California Association of Governments (SCAG) and City guidelines.

[a] Average frequency is based on the average time between trips occurring during the peak periods as indicated in transit schedules from September 2022. Some routes do not operate the full duration of the peak period, as reported under "Hours of Operation."

[b] Big Blue Bus Rapid 3 specifically serves commuters, and therefore does not offer mid-day service. During the morning peak period it only operates three trips in the southbound direction between approximately 7:00 AM and 7:30 AM (in accordance with travel demand).

[c] Culver City Bus Line 2 specifically serves commuters, and therefore does not offer mid-day service. It operates three trips in each direction during the peak periods.

[d] Culver City Bus Line 5 offers services only on school days and only provides one afternoon eastbound trip in the Project vicinity.

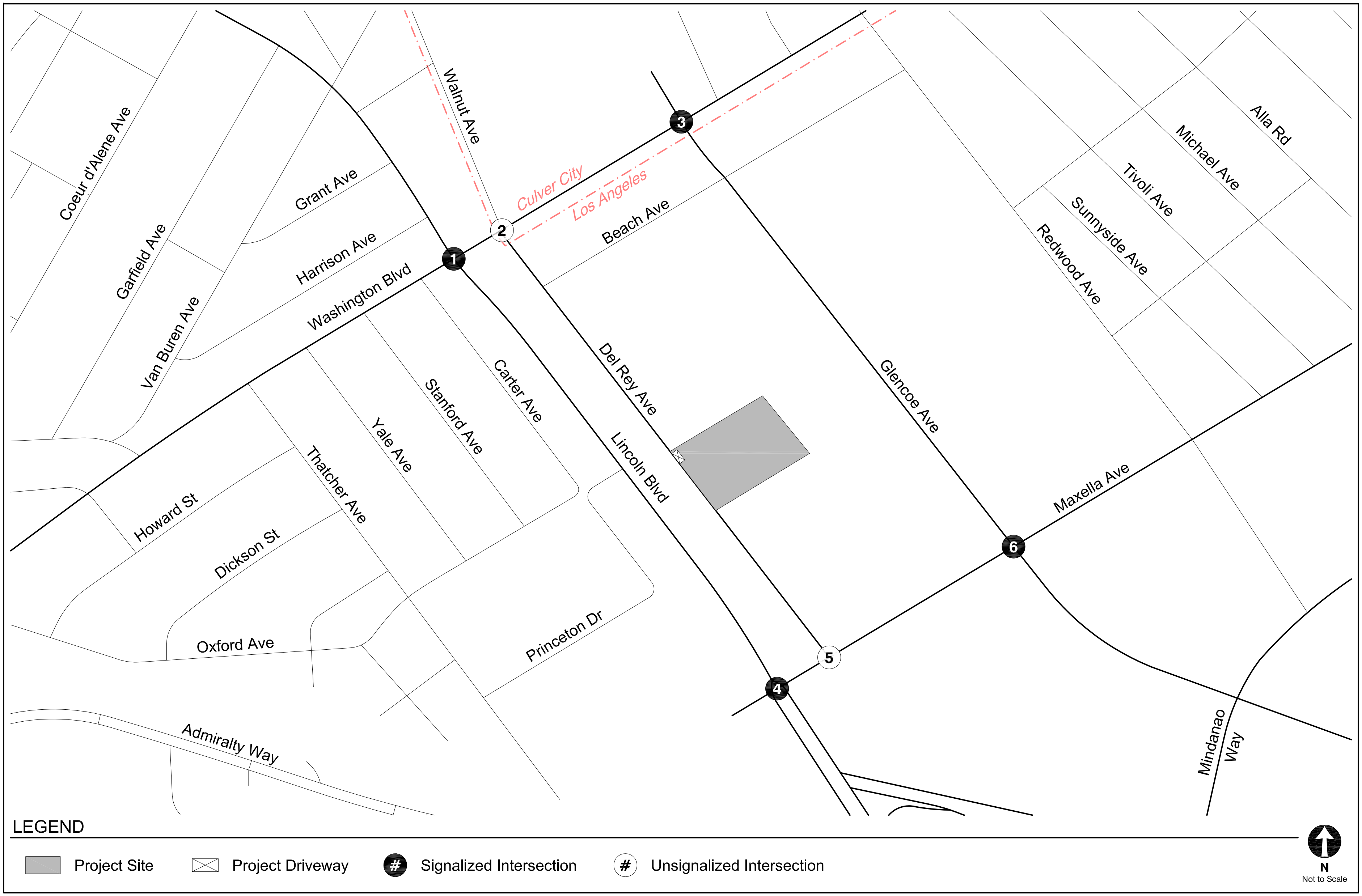
TABLE 3
RELATED PROJECTS

ID	Name	Address	Description	Trip Generation [a]						
				Daily Trips	Morning Peak Hour Trips			Afternoon Peak Hour Trips		
					In	Out	Total	In	Out	Total
1 [b]	G8	4040 Del Rey Ave	168 apartment units, 100,000 mini-warehouse or 33,000 office	1,839	-50	139	88	149	-28	121
2	Mixed-Use	4065 Glencoe Ave	35,206 sf creative office, 1,500 sf retail, 49 apartment units	-191	67	38	105	2	99	101
3	Mixed-Use	13400 Maxella Ave	425 apartment units, 90,000 sf retail	2,079	60	236	296	115	-32	83
4	Thatcher Yard Residential	3233 Thatcher Ave	98 apartment units	212	8	13	21	10	9	19
5	New 3-Story Manufacturing & Retail	595 E Venice Blvd	25,150 sf manufacturing, 5,028 sf retail	556	50	6	56	15	70	85
6	COU Warehouse to Office	4721 S Alla Rd	31,977 sf office	267	38	5	43	9	48	57
7	Mixed-Use: Residential & Commercial	2454 S Lincoln Blvd	77 apartment units, 4,040 sf restaurant, 1,905 sf retail	527	15	27	42	40	14	54
8	Apartments	1015 E Venice Blvd	56 apartment units	343	6	21	27	24	13	37
9	Change of Use: Office to Medical Office	13160 W Mindanao Way	40,000 sf medical office within existing building	1,003	46	18	64	26	18	44
10	Office & Retail	4204 S Glencoe Ave	121,822 sf office, 1,500 sf retail	816	65	14	79	24	131	155
11	Cedars-Sinai	4640-4660 Lincoln Boulevard	96 hospital beds with capacity to expand to 160 hospital beds	3,571	206	80	286	89	181	270

Notes:

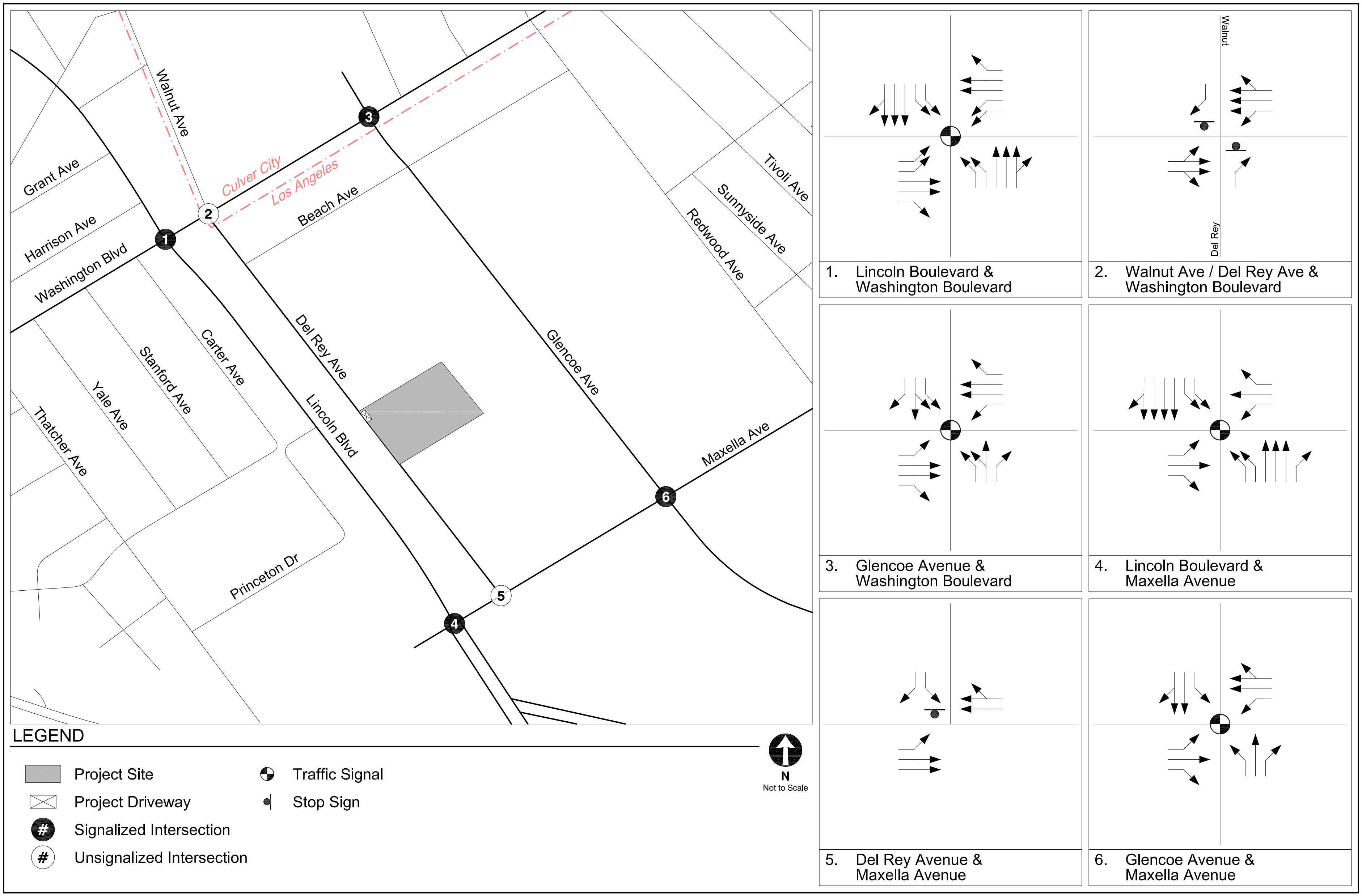
[a] Source: Related project information based on available information provided by LADOT and Department of City Planning on June 14th 2022, and recent studies in the area.

[b] Although construction of the related project may be partially complete/entirely complete, the project was not fully occupied at the time of the NOP or when traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis.



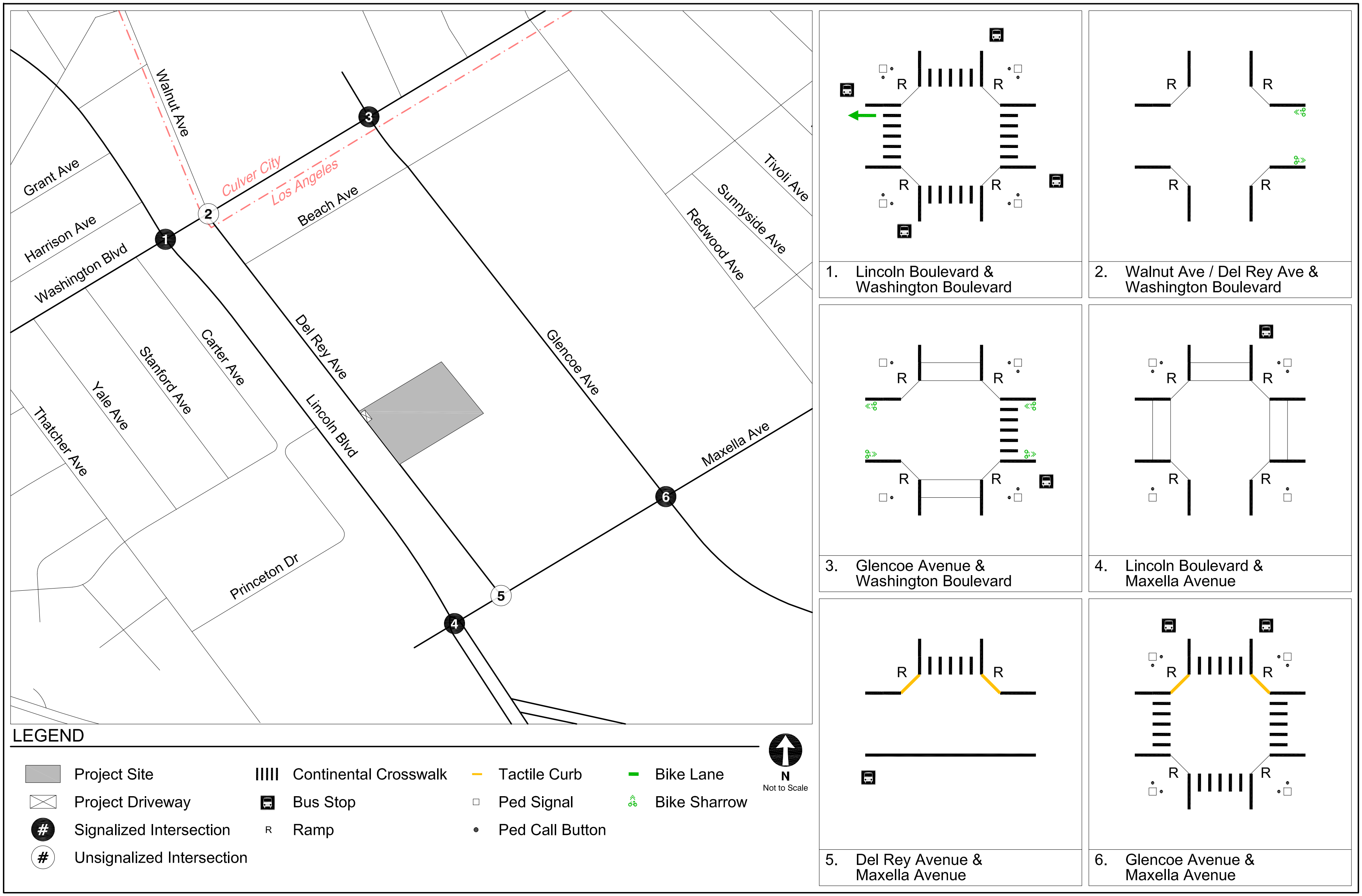
STUDY AREA AND ANALYZED INTERSECTIONS

FIGURE 3



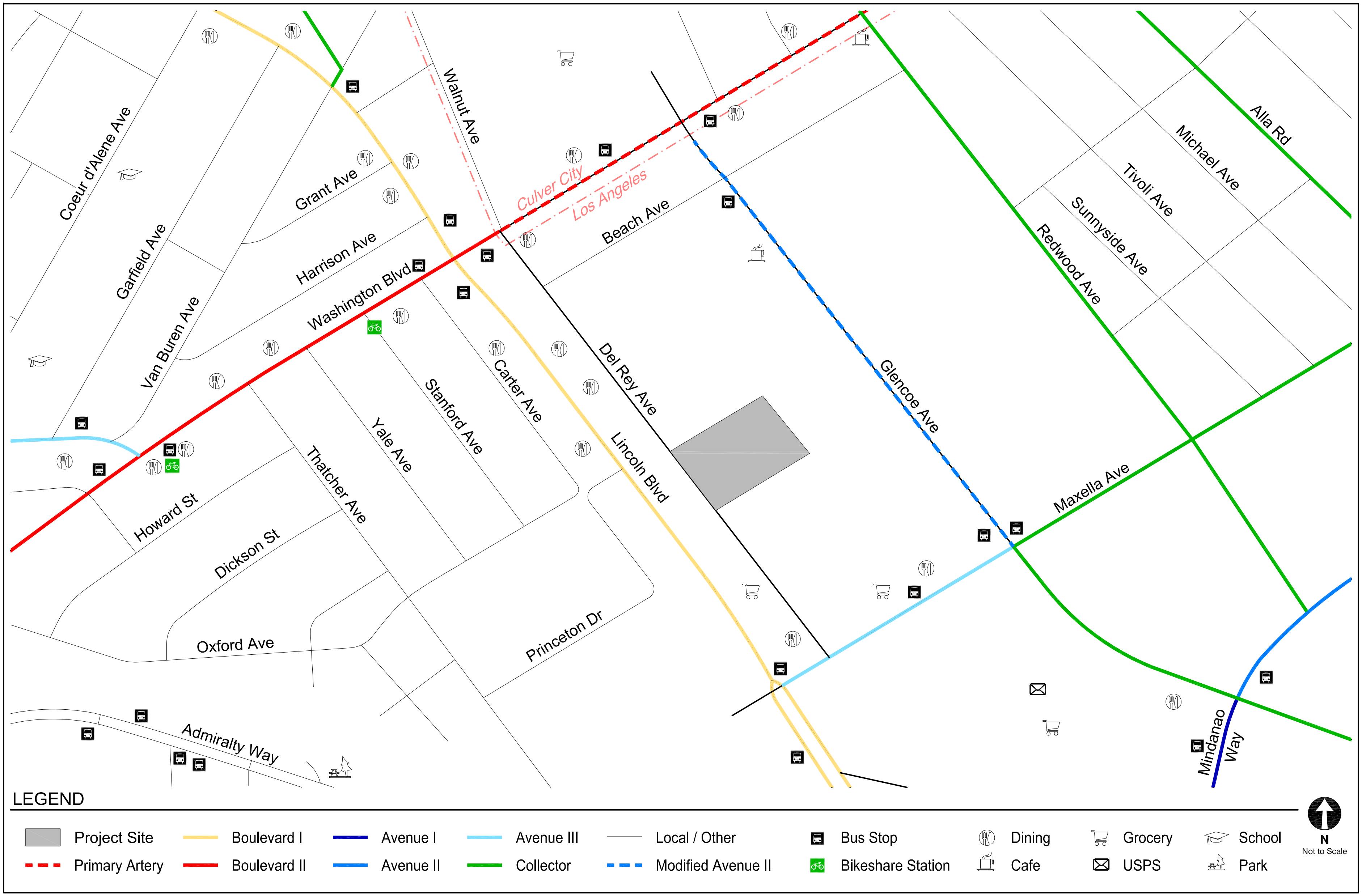
INTERSECTION LANE CONFIGURATIONS

FIGURE 4



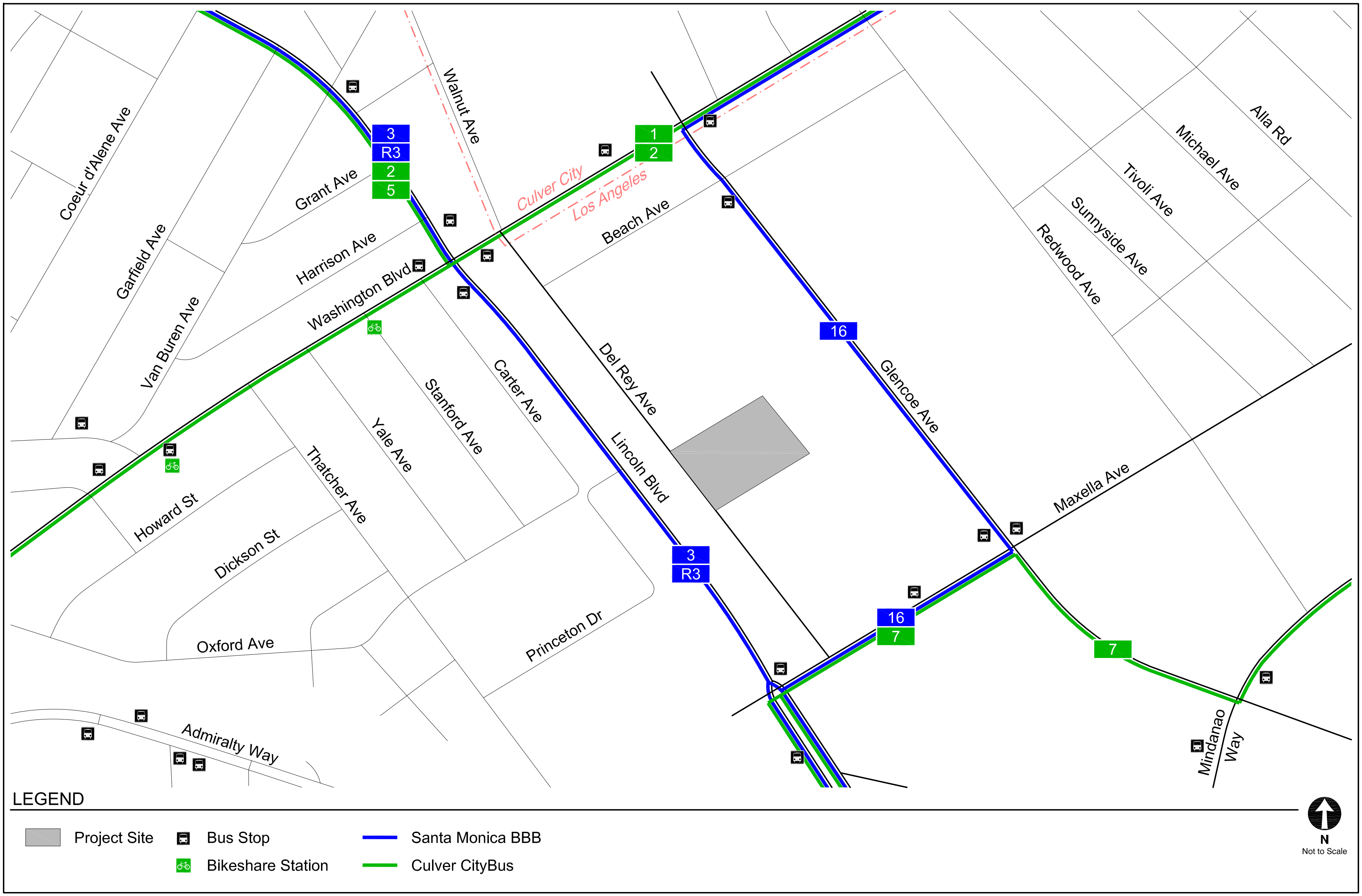
EXISTING INTERSECTION MOBILITY FACILITIES

FIGURE 5



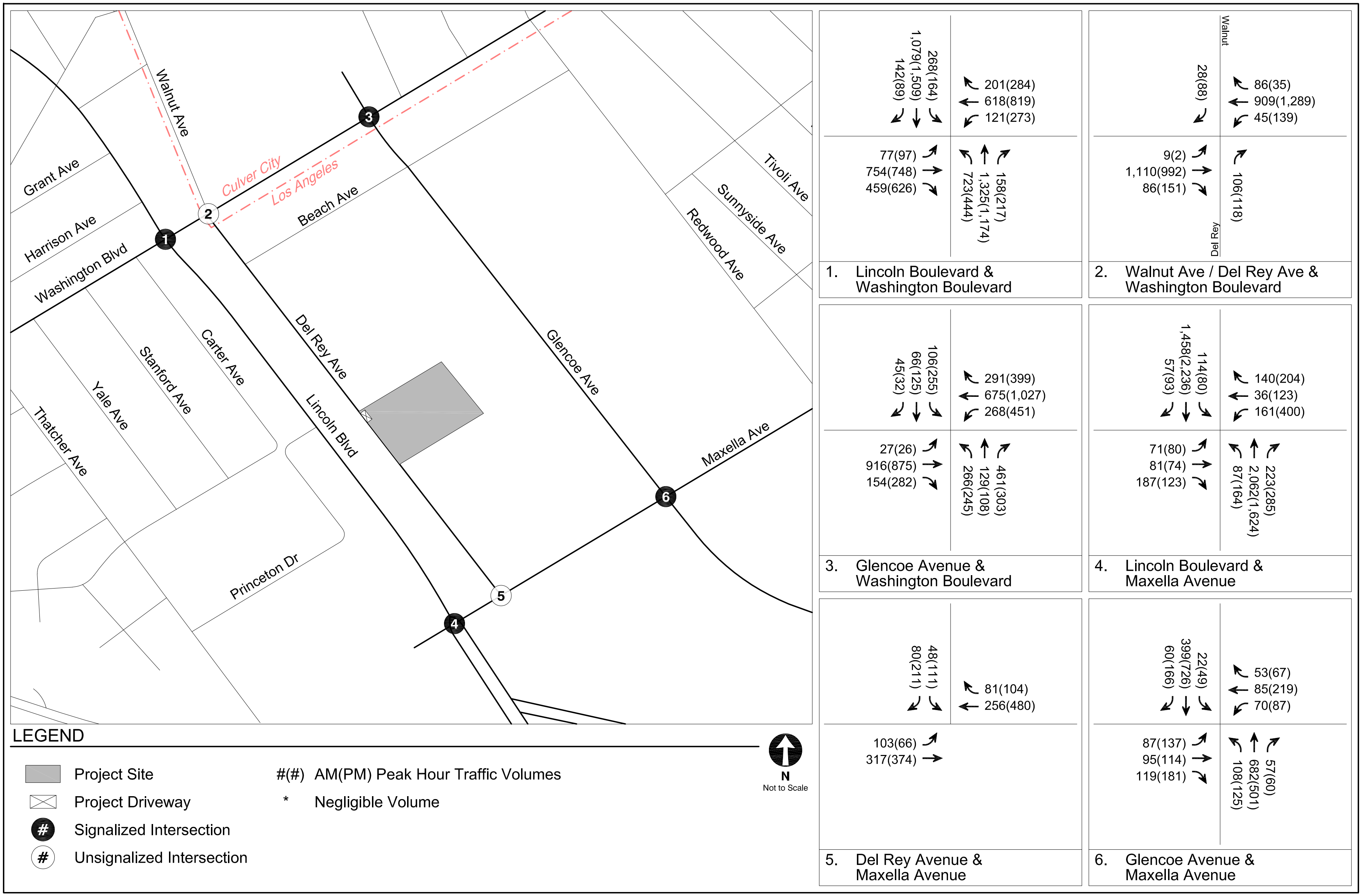
EXISTING TRANSPORTATION DESIGNATIONS AND PEDESTRIAN DESTINATIONS

FIGURE 6



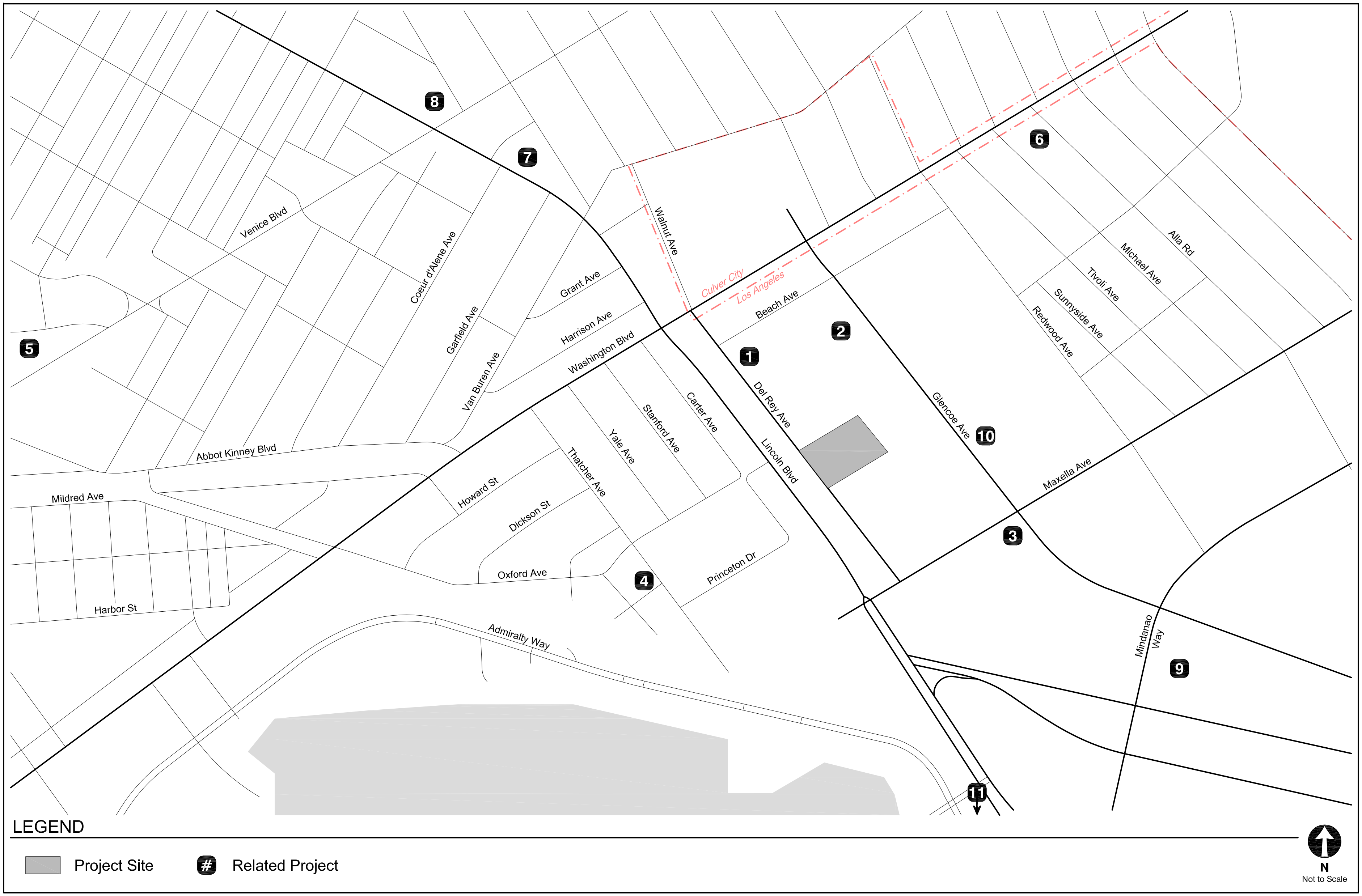
EXISTING TRANSIT SERVICE

FIGURE 7



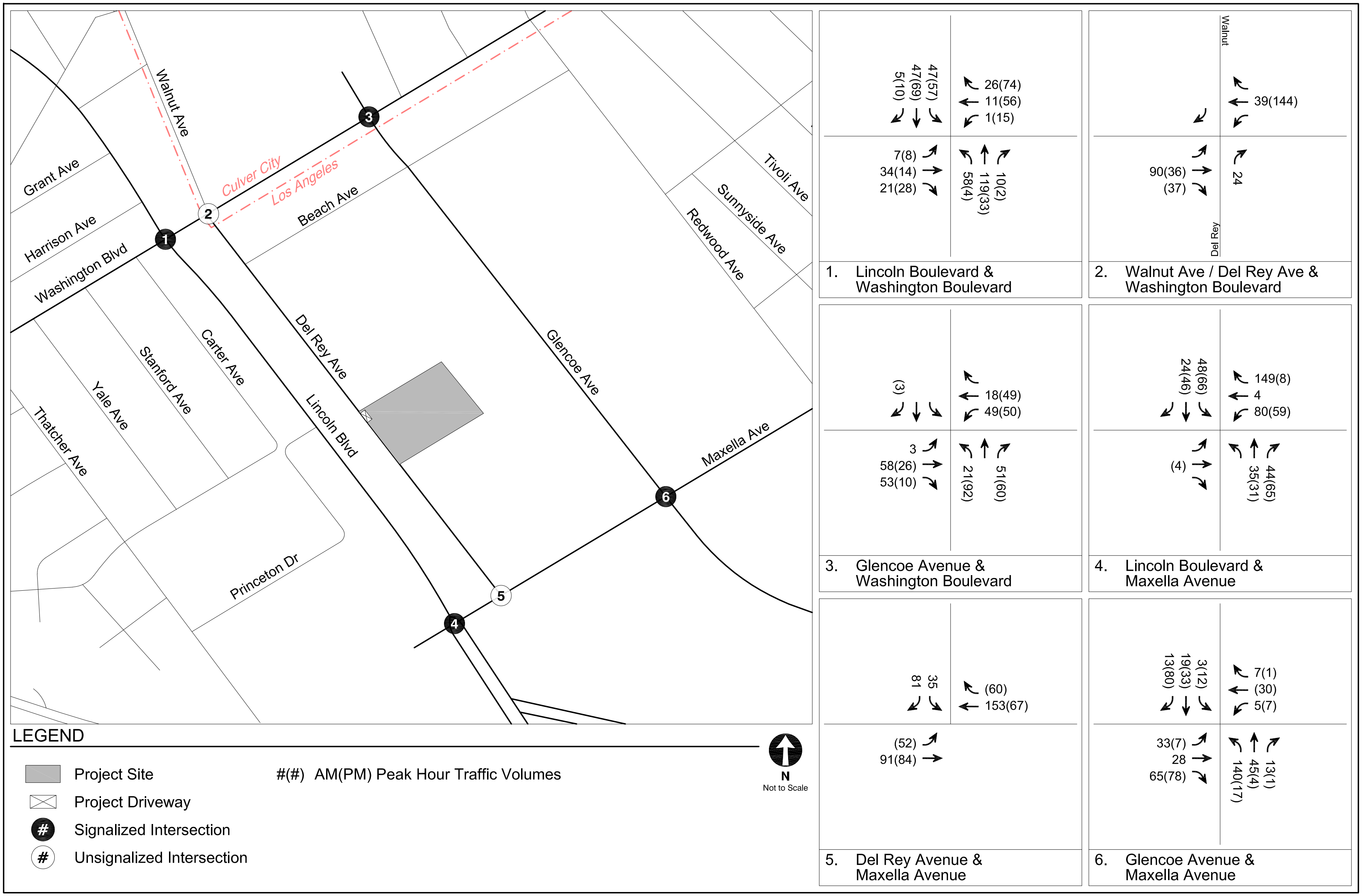
EXISTING CONDITIONS (YEAR 2022)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
8



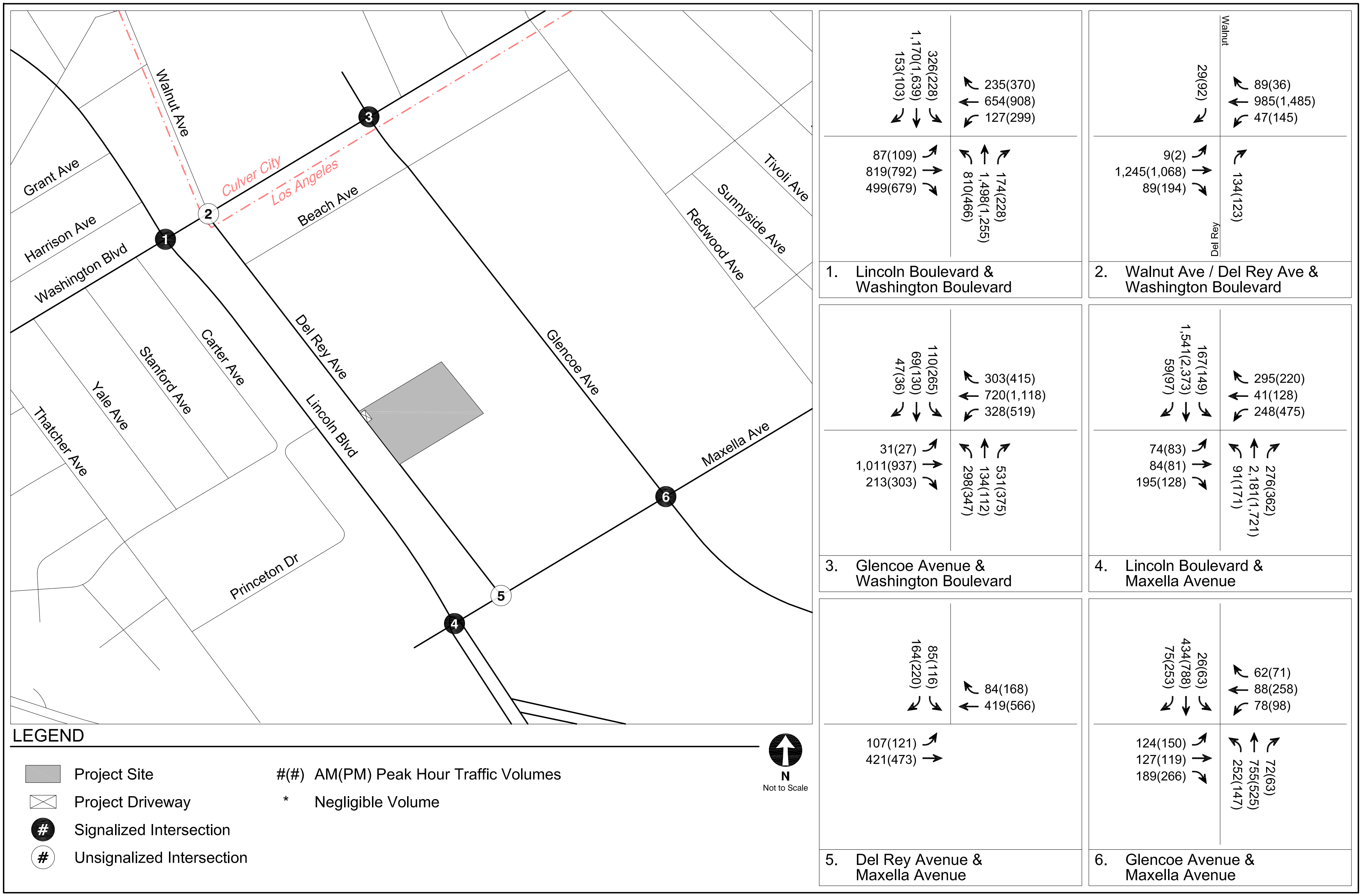
LOCATIONS OF RELATED PROJECTS

FIGURE 9



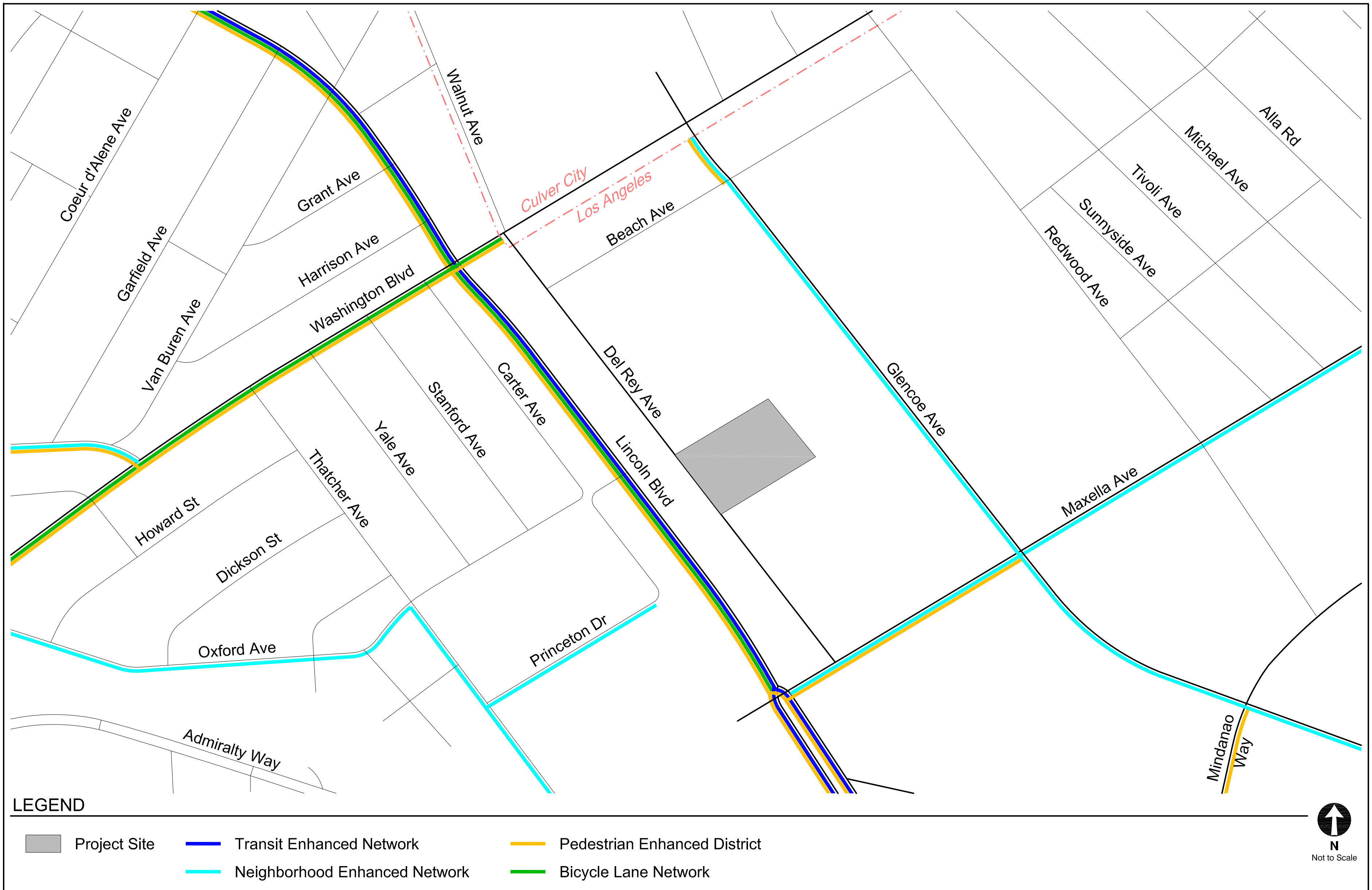
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2026)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 11



ROADWAY MODAL PRIORITIES

FIGURE 12

Chapter 3
Project Traffic

Trip generation estimates, trip distribution patterns, and trip assignments were prepared for the Project. These components form the basis of the Project's non-CEQA traffic analysis.

PROJECT TRIP GENERATION

The number of vehicle trips expected to be generated by the Project was estimated using rates published for the market-rate multifamily (mid-rise) housing land use in *Trip Generation Manual, 11th Edition* (Institute of Transportation Engineers [ITE], 2021). These rates are based on surveys of similar land uses at sites around the country and are utilized to calculate the number of vehicle trips traveling to and from the Project Site during the morning and afternoon peak hours relative to the size of development.

The Project is located within a 0.25-mile walking distance of a bus stop for the Big Blue Bus Rapid 3. Therefore, in consultation with LADOT, a 10% transit / walk-in reduction was applied to Project trips to account for transit usage and walking arrivals from the surrounding neighborhoods and adjacent commercial developments.

The number of trips currently generated by the currently operational manufacturing and general office uses to be removed with development of the Project was also estimated using the rates published in *Trip Generation Manual, 11th Edition*. Currently vacant space was excluded from the estimate. The existing use trip estimates also account for transit / walk-in trips consistent with the Project.

As shown in Table 4, after accounting for the adjustments above and the removal of existing active uses, the Project is expected to generate 34 net new morning peak hour trips (-14 inbound trips, 48 outbound trips) and 41 net new afternoon peak hour trips (39 inbound trips, two outbound trips).

PROJECT TRIP DISTRIBUTION

The geographic distribution of trips generated by the Project is dependent on the location of employment, residential, and commercial centers to and from which employees and patrons of the Project would be drawn, characteristics of the street system serving the Project Site, the location of the Project driveways, existing traffic patterns, as well as input from LADOT staff.

The intersection-level trip distribution pattern for Project traffic at the Study Intersections is shown in Figure 13. Generally, the regional pattern is as follows:

- 25% to/from the north
- 30% to/from the east
- 30% to/from the south
- 15% to/from the west

PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 4 and the trip distribution pattern shown in Figure 13 were used to assign the Project-generated traffic through the Study Intersections. Figure 14 illustrates the net Project-only traffic volumes for the Project at the Study Intersections during typical weekday morning and afternoon peak hours.

TABLE 4
TRIP GENERATION ESTIMATES

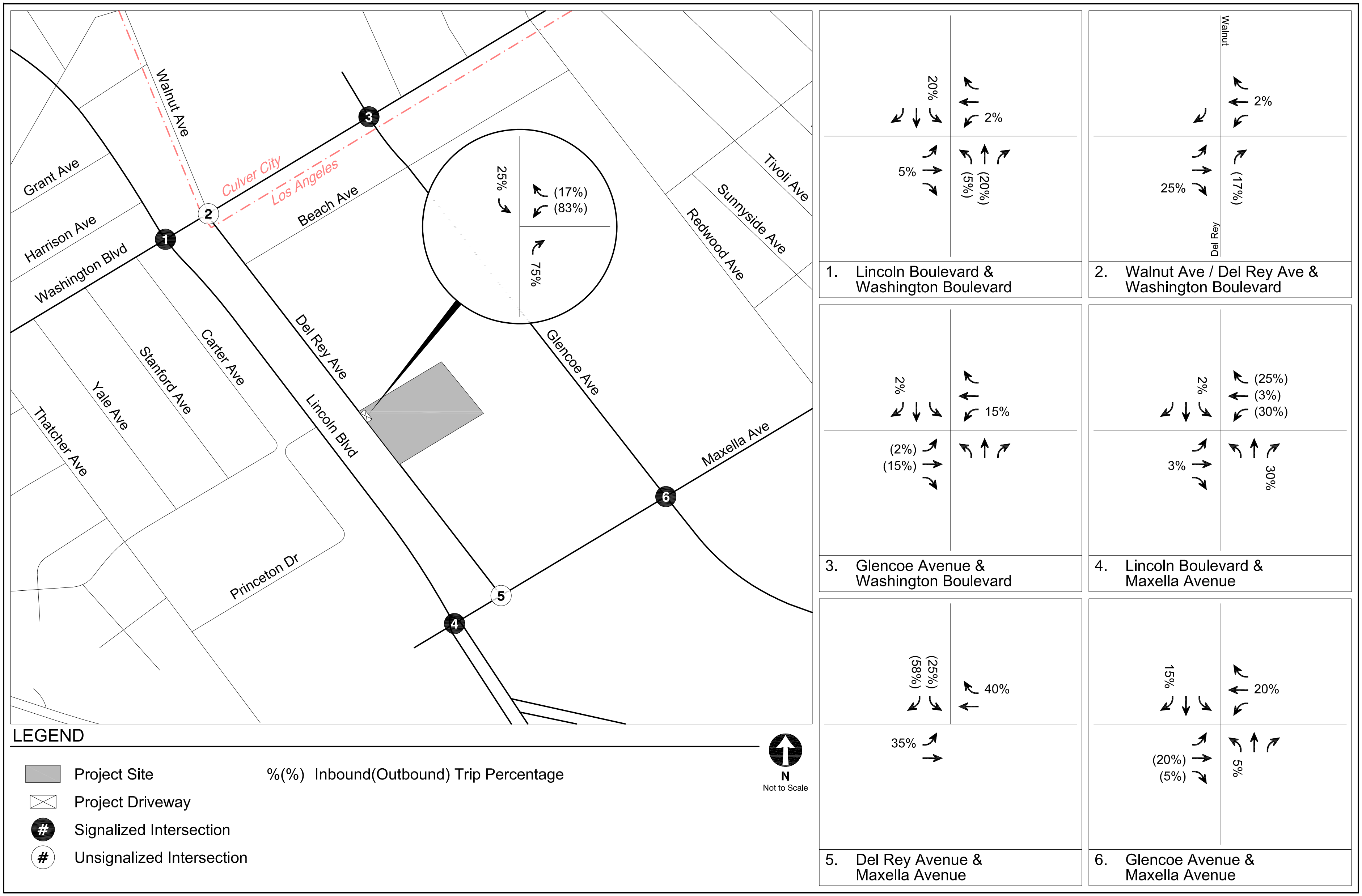
Land Use	ITE Land Use	Size	Weekday					
			Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates [a]								
Manufacturing	140	per 1,000 sf	76%	24%	0.68	31%	69%	0.74
Multifamily Housing (Mid-Rise)	221	per du	23%	77%	0.37	61%	39%	0.39
General Office	710	per 1,000 sf	88%	12%	1.52	17%	83%	1.44
Proposed Project								
Multifamily Housing (Mid-Rise)	221	210 du	18	60	78	50	32	82
Less 10% Transit/Walk Adjustment [b]			*(2)*	*(6)*	*(8)*	*(5)*	*(3)*	*(8)*
Subtotal - Proposed Project Trips			**16**	**54**	**70**	**45**	**29**	**74**
Existing Active Uses to be Removed [c]								
Manufacturing	140	11.076 ksf	6	2	8	2	6	8
Less 10% Transit/Walk Adjustment [b]			*(1)*	*0*	*(1)*	*0*	*(1)*	*(1)*
General Office	710	20.789 ksf	28	4	32	5	25	30
Less 10% Transit/Walk Adjustment [b]			*(3)*	*0*	*(3)*	*(1)*	*(3)*	*(4)*
Subtotal - Existing Trips to be Removed			**30**	**6**	**36**	**6**	**27**	**33**
Total - Net New Project Trips			**(14)**	**48**	**34**	**39**	**2**	**41**

Notes:

[a] Source: *Trip Generation, 11th Edition,* Institute of Transportation Engineers, 2021.

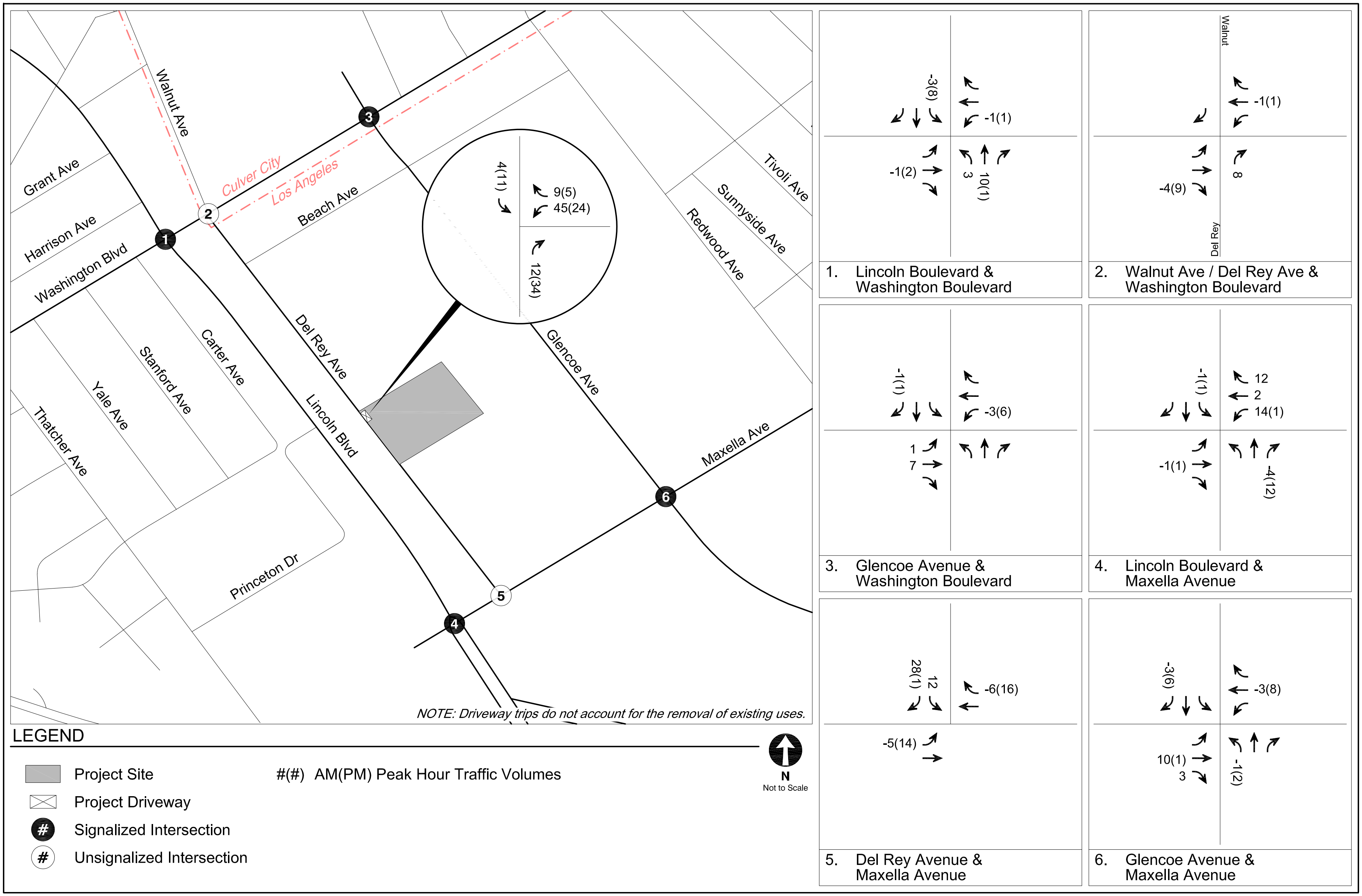
[b] Per LADOT's *Transportation Assessment Guidelines* (LADOT, 2019), the Project Site is located within a 0.25 miles or one quarter mile walking distance from a Big Blue Bus Rapid 3 stop, therefore a 10% transit adjustment was applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments.

[c] The Project would replace a total of 62,467 sf of existing space, of which 20,789 sf of office space and 11,076 sf of manufacturing space is in active use.



PROJECT TRIP DISTRIBUTION

FIGURE 13



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE 14

Chapter 4
CEQA Analysis of Transportation Impacts

This chapter presents the results of an analysis of CEQA-related transportation impacts. The analysis identifies any potential conflicts the Project may have with adopted City plans and policies and any improvements associated with the potential conflicts, as well as the results of a Project VMT analysis that satisfies State requirements under *State of California Senate Bill 743* (Steinberg, 2013) (SB 743) and an identification of any hazards that would be created due to geometric design features.

METHODOLOGY

SB 743, adopted in January 2014, required the Governor's Office of Planning and Research to change the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifts from vehicular delay (level of service [LOS]) to VMT, in order to reduce greenhouse gas emissions (GHG), create multimodal networks, and promote mixed-use developments.

The TAG defines the methodology of analyzing a project's transportation impacts in accordance with SB 743. Per the TAG, the CEQA transportation analysis contains the following thresholds for identifying significant impacts:

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial VMT
- Threshold T-2.2: Substantially Inducing Additional Automobile Travel
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

The thresholds were reviewed and analyzed, as detailed in the following Sections 4A through 4D. In addition, a CEQA safety analysis of California Department of Transportation (Caltrans) freeway facilities for the Project is provided in Section 4E.

Section 4A: Threshold T-1
Consistency with Plans, Programs, Ordinances, or Policies Analysis

Threshold T-1 assesses whether a project would conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

PLANS, PROGRAMS, ORDINANCES, AND POLICIES

Table 2.1-1 of the TAG identifies the City plans, policies, programs, ordinances, and standards relevant in determining project consistency. Attachment D of the TAG, *Plans, Policies, and Programs Consistency Worksheet,* provides a structured approach to evaluate whether a project conflicts with the City's plans, programs, ordinances, or policies and to streamline the review by highlighting the most relevant plans, policies, and programs when assessing potential impacts to the City's transportation system. The *Plans, Policies, and Programs Consistency Worksheet* for the Project is provided in Appendix D.

As stated in Section 2.1.4 of the TAG, a project that generally conforms with and does not obstruct the City's development policies and standards will generally be considered to be consistent. As detailed in Appendix D, the Project is generally consistent with the City documents listed in Table 2.1-1 of the TAG; therefore, the Project would not result in a significant impact under Threshold T-1. A detailed discussion of the plans, programs, ordinances, or policies related to the Project is provided below.

Mobility Plan

The Mobility Plan combines "complete street" principles with the following goals and objectives that define the City's mobility priorities:

- Safety First: Design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode choice.
- World Class Infrastructure: A well-maintained and connected network of streets, paths, bikeways, trails, and more provides Angelenos with the optimum variety of mode choices.
- Access for all Angelenos: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.
- Collaboration, Communication, and Informed Choices: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the future.
- Clean Environments and Healthy Communities: Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

A detailed analysis of the Project's consistency with the specific policies of the Mobility Plan is provided in Table 5 and Appendix D. As detailed in Chapter 2, the Mobility Plan identifies key corridors within the Study Area as components of various "mobility-enhanced networks". Though no specific improvements have been identified and there is no schedule for implementation, the mobility-enhanced networks represent a focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The Project would be designed with the mobility-enhanced networks as a top priority.

With the development of the Project, Del Rey Avenue along the Project frontage would provide improved pedestrian safety and landscaping. The Project would provide an approximate five-foot dedication on Del Rey Avenue to meet the Mobility Plan half-width ROW standard of 30 feet for a Local Street. No street widening would be required as part of the dedication but the Project would widen the sidewalk by five feet (to approximately 12 feet) within the dedication adjacent to the Project Site. Further, the Project would provide a 10-foot setback along Del Rey Avenue to accommodate additional landscaping and pedestrian amenities. The sidewalk adjacent to the Project Site would provide for a comfortable pedestrian network, improving connections to the Project, transit facilities, and other pedestrian attractors in the area. Note that no sidewalk is currently provided on the west side of Del Rey Avenue, which the Project would not affect.

Vehicular access to the Project Site would be provided via a new driveway on Del Rey Avenue located on the north side of the Project Site. The Project would also provide an off-street loading area to accommodate mail delivery and moving trucks. The existing five driveways at the Project

Site would be removed. Thus, the Project would reduce the number of conflict points between vehicles and pedestrians/bicyclists. As detailed in Section 5E, the Project would provide sufficient off-street parking to satisfy vehicular parking requirements for the Project.

The Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and will ensure the driveway is constructed to provide sufficient visibility between drivers, cyclists, and pedestrians. Long-term and short-term bicycle parking facilities would be provided within the Project Site per the Los Angeles Municipal Code (LAMC). These measures would promote active transportation modes such as biking and walking, thereby reducing the Project VMT compared to the average for the area, as demonstrated in Section 4B.

As detailed in Chapter 2, the Project would be located near numerous local and rapid bus options provided by Santa Monica Big Blue Bus and Culver CityBus.

Thus, the Project would be consistent with the goals of the Mobility Plan.

Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (LADCP, March 2015) introduces guidelines for the City to follow to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

A detailed analysis of the Project's consistency with *Plan for a Healthy Los Angeles* is provided in Table 6. In summary, the Project supports healthy lifestyles by complying with all Americans with Disabilities Act requirements and providing connections to pedestrian amenities. Further, the Project locates housing near high-frequency transit and provides secure bicycle parking and convenient pedestrian access. It would not displace any existing housing. It would also result in VMT per capita at least 15% below the average for the area, as demonstrated in Chapter 5. Thus, the Project would be consistent with the goals of *Plan for a Healthy Los Angeles.*

Land Use Element of the General Plan

The City's General Plan Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across the City. The Project is located within the *Palms - Mar Vista - Del Rey Community Plan* area.

A detailed analysis of the Project's consistency with *Palms - Mar Vista - Del Rey Community Plan* is provided in Table 7. The Project would expand multifamily housing opportunities while preserving local neighborhood character and reduce vehicular trips and congestion by developing near accessible transit and commercial areas. The Project provides bicycle parking and amenities on-site and enhances existing pedestrian activity in the neighborhood, which would further reduce vehicular trips.

LAMC Section 12.21.A.16 (Bicycle Parking)

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. The Project would require a total of 142 bicycle parking spaces (14 short-term and 128 long-term). The Project's bicycle parking supply would meet LAMC requirements.

LAMC Section 12.26J (TDM Ordinance)

LAMC Section 12.26J, the TDM Ordinance (1993), establishes trip reduction requirements for non-residential projects in excess of 25,000 sf. The Project is entirely residential and, therefore, LAMC Section 12.26J as currently written would not apply to the Project. Nonetheless, the Project would incorporate design features that reduce VMT, including a reduced parking supply and bicycle parking and amenities, as further described in Chapter 5. Additionally, the City has released a draft revision to the TDM Ordinance which, if adopted, does require TDM measures at residential developments. The Project would comply with the revised TDM Ordinance as required.

Vision Zero Action Plan / Vision Zero Corridor Plans

Vision Zero implements projects that are designed to increase safety on the most vulnerable City streets. The City has identified a number of streets as part of the HIN where improvement projects will be targeted. Within the Study Area, Lincoln Boulevard and Washington Boulevard west of Lincoln Boulevard are identified as part of the HIN. As of September 2022, no improvements were identified within the Study Area. Nonetheless, the Project would not preclude future Vision Zero safety projects by the City on any streets. Thus, the Project does not conflict with Vision Zero.

Streetscape Plans

There are no streetscape plans adjacent to the Project Site and, therefore, streetscape plans do not apply to the Project.

Citywide Design Guidelines

The Pedestrian-First Design approach of *Citywide Design Guidelines* (Los Angeles City Planning Urban Design Studio, October 2019) identifies design strategies that "create human scale spaces in response to how people actually engage with their surroundings, by prioritizing active street frontages, clear paths of travel, legible wayfinding, and enhanced connectivity. Pedestrian-First Design promoted healthy living, increases economic activity at the street level, enables social intersection, creates equitable and accessible public spaces, and improves public safety."

The Pedestrian-First Design guidelines are as follows:

- Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all.
- Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
- Guideline 3: Design projects to actively engage with streets and public space and maintain human scale.

A detailed analysis of the Project's consistency with the guidelines of the Pedestrian-First Design approach is provided in Table 8.

With Project completion, the sidewalk on Del Rey Avenue adjacent to the Project Site would meet the designated width in the Mobility Plan. Additionally, the Project will provide landscaping and a courtyard to provide shade and a more comfortable and inviting mobility environment for pedestrians. The Project also removes five existing driveways, reducing the number of conflict points between motorized and non-motorized travel. Thus, the Project design provides for the safety, comfort, and accessibility of pedestrians, aligning with the Pedestrian-First Design approach.

CUMULATIVE ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby Related Projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must include consideration of any Related Projects within 0.50 miles of the Project site and any transportation system improvements in the vicinity. Related Projects located within 0.50 miles of the Project site are identified in Table 3.

Similar to the Project, the Related Projects would be individually responsible for complying with relevant plans, programs, ordinances, or policies addressing the circulation system. Thus, the Project, together with the Related Projects, would not result in cumulative impacts with respect to consistency with each of the plans, ordinances, or policies reviewed. The Project and the Related Projects would not interfere with any of the general policy recommendations and, therefore, there would be no significant Project impact or cumulative impact.

TABLE 5
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Chapter 1 – Safety First	
<u>Policy 1.1, Roadway User Vulnerability</u> Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.	**Consistent.** The Project design includes pedestrian enhancements along the perimeter of the Project Site, which include an approximately five-foot dedication of ROW along Del Rey Avenue and a 10-foot setback for pedestrian amenities and landscaping. No street widening would be required as part of the dedication. Separate pedestrian and bicycle access to the Project Site would be provided via entrances along Del Rey Avenue. All right-of-way, roadway, and dedication widths would be designed to meet the goals and serve the long-term needs of the Mobility Plan. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure. The new driveway would replace five existing driveways and would be designed to be compliant with LADOT guidelines.
<u>Policy 1.6 Multi-Modal Detour Facilities</u> Design detour facilities to provide safe passage for all modes of travel.	**Consistent.** The Project would prepare a Construction Management Plan that would include, to the extent necessary, detour routes for all applicable travel modes, including pedestrian and transit users.
Chapter 2 – World Class Infrastructure	
<u>Policy 2.2 Complete Streets Design Guide</u> Establish the Complete Streets Design Guide as the City's document to guide the operations and design of streets and other public rights-of-way.	**Consistent.** The Project would conform to all design element requirements which may affect public rights-of-way, including proper driveway alignment, adequate sidewalk widths, and landscaping design which does not hinder sight distance, mobility, or accessibility.
<u>Policy 2.3 Pedestrian Infrastructure</u> Recognize walking as a component of every trip, and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.	**Consistent.** The Project would enhance pedestrian access within and around the Project Site by providing a new landscaping, walkways, and a sidewalk dedication on Del Rey Avenue. In addition to the dedication, the Project would provide an additional 10-foot setback along the Project frontage for pedestrian amenities and landscaping, thus enhancing the pedestrian environment. The Project would also remove five existing vehicular driveways on Del Rey Avenue and replace them with a single driveway.
<u>Policy 2.4 Neighborhood Enhanced Network</u> Provide a slow speed network of locally serving streets.	**Consistent.** Glencoe Avenue and Maxella Avenue are part of the neighborhood-enhanced network. The Project does not provide access to those streets and would only add minimal traffic to them.
<u>Policy 2.5 Transit Network</u> Improve the performance and reliability of existing and future bus service.	**Consistent.** Lincoln Boulevard is designated as part of the Transit Enhanced Network. There are also bus routes along Washington Boulevard, Glencoe Avenue, and Maxella Avenue. The Project would not interfere with existing or future transit services. The

TABLE 5 (CONTINUED)
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
	Project would encourage more transit usage by developing residential units with convenient access to bus transit services.
Policy 2.6 Bicycle Networks Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. (includes scooters, skateboards, rollerblades, etc.)	**Consistent.** Washington Boulevard and Lincoln Boulevard are designated as part of the Bicycle Lane Network in the Mobility Plan. No new access points to the Project Site are provided along these streets and thus the Project would not interfere with existing or future bicycle facilities. Further, the Project would provide short-term and long-term bicycle parking for residents and visitors in accordance with LAMC requirements.
Policy 2.9 Multiple Networks Consider the role of each mode enhanced network when designing a street that included multiple modes.	**Consistent.** The Study Area includes a mix of enhanced networks identified as part of the Mobility Plan. The Project would also improve the adjacent pedestrian facilities to enhance the pedestrian experience as well as to provide safe access to the nearby transit stops.
Chapter 3 – Access for All Angelenos	
Policy 3.1 Access for All Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes – including goods movement – as integral components of the City's transportation system.	**Consistent.** The Project encourages multi-modal transportation alternatives through proximity to high-quality transit, provision of pedestrian and bicycle facilities, and by reducing the total number of driveways provided on Del Rey Avenue which reduces potential vehicular and pedestrian conflicts along the Project Site frontage. It encourages transit usage by developing a high-density residential project located in close proximity to high-quality transit. Finally, the Project would support residents and visitors who choose to travel by automobile through a new driveway on Del Rey Avenue and adequate parking supply to serve demand.
Policy 3.2 People with Disabilities Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	**Consistent.** The Project would be designed in accordance with requirements of the Americans with Disabilities Act.
Policy 3.3 Land Use Access and Mix Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.	**Consistent.** The Project's high-density residential uses located near a high-traffic commercial corridor with high-quality transit options would help to minimize vehicle trips and enhance proximity and convenience of residences to jobs and services.

TABLE 5 (CONTINUED)
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Policy 3.4 Transit Services Provide all residents, workers, and visitors with affordable, efficient, convenient, and attractive transit services.	**Consistent.** The Project is located within a quarter mile of numerous bus lines provided by Culver CityBus and Santa Monica Big Blue Bus, which stop at Washington Boulevard & Lincoln Boulevard and Maxella Avenue & Lincoln Boulevard near the Project Site.
Policy 3.5 Multi-Modal Features Support "first-mile, last-mile solutions" such as multi-modal transportation services, organizations, and activities in the areas around transit stations and major bus stops (transit stops) to maximize multi-modal connectivity and access for transit riders.	**Consistent.** The Project would support "first-mile, last-mile" solutions by developing a high-density residential project near a high-traffic commercial corridor with high-quality transit. It also provides secure bicycle parking for residents and short-term bicycle parking for visitors.
Policy 3.6 Regional Transportation & Union Station Continue to promote Union Station as the major regional transportation hub linking Amtrak, Metrolink, Metro Rail, and high-speed rail service.	**Consistent.** The Project is located within a quarter mile of numerous bus lines provided by Culver CityBus and Santa Monica Big Blue Bus. These lines provide access to the regional transportation system including the Metro 33 service on Venice Boulevard and numerous other services providing a connection to Union Station.
Policy 3.8 Bicycle Parking Provide bicyclists with convenient, secure, and well-maintained bicycle parking facilities.	**Consistent.** The Project would provide secure long-term bicycle parking for residents and short-term parking for visitors in accordance with LAMC requirements.
Chapter 4 – Collaboration, Communication, & Informed Choices	
Policy 4.8 Transportation Demand Management Strategies Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	**Consistent.** The Project is located in close proximity to high-quality transit. It would provide bicycle parking and a vehicular parking reduction from the LAMC requirement. Together, these TDM measures would help to promote non-auto travel to reduce transportation-related impacts to the environment. Additionally, it would comply with the requirements of the City's revised TDM Ordinance.
Policy 4.13 Parking and Land Use Management Balance on-street and off-street parking supply with other transportation and land use objectives.	**Consistent.** The Project would provide sufficient off-street parking to accommodate Project parking demand. The supply of on-street parking adjacent to the Project Site would likely increase as the Project would eliminate many existing driveways adjacent to the Project Site.
Chapter 5 – Clean Environments & Healthy Communities	

TABLE 5 (CONTINUED)
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
<u>Policy 5.1 Sustainable Transportation</u> Encourage the development of a sustainable transportation system that promotes environmental and public health.	**Consistent.** The Project would provide secure long-term bicycle parking for residents and short-term bicycle parking for visitors, which would promote active transportation modes such as biking and walking. Additionally, the Project is located within walking distance of high-quality transit on Washington Boulevard & Lincoln Boulevard.
<u>Policy 5.2 Vehicle Miles Traveled (VMT)</u> Support ways to reduce vehicle miles traveled (VMT) per capita.	**Consistent.** The Project is estimated to generate lower residential VMT per capita than the average for the area, as demonstrated in Section 4B of this transportation assessment. Additionally, it would implement several project design features, including provision of bicycle parking and reduced vehicle parking supply, that have been shown to reduce VMT.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

TABLE 6
PROJECT CONSISTENCY WITH PLAN FOR A HEALTHY LOS ANGELES

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Chapter 1 – Los Angeles, a Leader in Health and Equity	
Policy 1.5 Plan for Health Improve Angelenos' health and well-being by incorporating a health perspective into land use, design, policy, and zoning decisions through existing tools, practices, and programs.	**Consistent.** The Project supports healthy lifestyles by locating housing near transit, providing bicycle parking, and orienting pedestrian access toward Del Rey Avenue.
Policy 1.7 Displacement and Health Reduce the harmful health impacts of displacement on individuals, families and communities by pursuing strategies to create opportunities for existing residents to benefit from local revitalization efforts by: creating local employment and economic opportunities for low-income residents and local small businesses; expanding and preserving existing housing opportunities available to low-income residents; preserving cultural and social resources; and creating and implementing tools to evaluate and mitigate the potential displacement caused by large-scale investment and development.	**Consistent.** The Project proposes to provide 210 apartment units and would not displace any existing housing as it is replacing an existing office/manufacturing space.
Chapter 5 – An Environment Where Life Thrives	
Policy 5.7 Land Use Planning for Public Health and GHG Emission Reduction Promote land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors and others susceptible to respiratory diseases.	**Consistent.** The Project is estimated to generate VMT per capita for residents at least 15% lower than the average for the area, as demonstrated in Section 4B of this transportation assessment. Further, it would provide bicycle parking and would not provide any vehicular parking supply to further reduce VMT per capita. VMT directly contributes to GHG emissions, so a reduced VMT per capita also reduces GHG per capita.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in *Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan* (Los Angeles Department of City Planning, March 2015).

TABLE 7
PROJECT CONSISTENCY WITH PALMS - MAR VISTA - DEL REY COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Plan Objectives and Policies	
Objective 1-1 To provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the Plan area to the year 2010. **Policies** **1-1.1** Provide for adequate multi-family residential development. **1-1.2** Protect the quality of residential environment and the appearance of communities with attention to site and building design. **1-1.3** Protect existing single family residential neighborhoods from new out-of scale development and other incompatible uses. **1-1.4** Promote neighborhood preservation, particularly in multi-family neighborhoods.	**Consistent.** The Project would construct a new multi-family residential development while maintaining the quality of the existing built environment. This would help to preserve the multifamily nature of the Del Rey community.
Objective 1-2 To reduce vehicular trips and congestion by developing new housing in proximity to services and facilities. **Policies** **1-2.1** Locate higher residential densities near commercial centers and major bus routes where public service facilities and infrastructure will support this development.	**Consistent.** The Project's residential land use would provide 210 apartment units in close proximity to a commercial corridor with bus transit service. The Project would be located near numerous restaurants, retail stores, and offices, thus providing greater access to employment and entertainment opportunities within close proximity. The Project is also located near numerous bus stops which would connect it to the greater region. This would promote trips within the neighborhood and via transit that would reduce VMT.

TABLE 7 (CONTINUED)
PROJECT CONSISTENCY WITH PALMS - MAR VISTA - DEL REY COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Objective 1-4 To promote the adequacy and affordability of multiple family housing and increase its accessibility to more segments of the population. **Policies** **1.4-1** Promote greater individual choice in type, quality, price and location of housing. **1.4-2** Ensure that new housing opportunities minimize displacement of residents.	**Consistent.** The Project would not displace any existing housing and would construct 210 new apartment units. This would provide greater variety of housing opportunities at different price points in the Del Rey community.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in the Palms - Mar Vista - Del Rey Community Plan (Los Angeles Department of City Planning, 1997).

TABLE 8
PROJECT CONSISTENCY WITH CITYWIDE DESIGN GUIDELINES

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Pedestrian-First Design	
Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all Design projects to be safe and accessible and contribute to a better public right-of-way for people of all ages, genders, and abilities, especially the most vulnerable - children, seniors, and people with disabilities. **Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience** Design to avoid pedestrian and vehicular conflicts and to create an inviting and comfortable public right-of-way. A pleasant and welcoming public realm reinforces walkability and improves the quality of life for users. **Guideline 3: Design projects to actively engage with streets and public space and maintain human scale** New projects should be designed to contribute to a vibrant and attractive public realm that promotes a sense of civic pride. Better connections within the built environment contribute to a livable and accessible city and a healthier public realm.	**Consistent.** The Project provides for the safety, comfort, and accessibility of pedestrians by separating pedestrian access from vehicular access and providing an approximately five-foot dedication along Del Rey Avenue. The Project also enhances Del Rey Avenue by providing a 10-foot setback to provide pedestrian amenities and landscaping along the residential building frontage, providing a more walkable environment. No street widening would be required as part of the dedication. The new driveway would be designed in accordance with LADOT's design standards and would replace five existing driveways, reducing the conflict between pedestrians and vehicles.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in the *Citywide Design Guidelines* (Los Angeles Department of City Planning, 2019).

Section 4B: Threshold T-2.1
Causing Substantial VMT Analysis

Threshold T-2.1 of the TAG analyzes whether a project causes substantial VMT and is generally applied to land use projects. Specifically, Threshold T-2.1 inquires whether a project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1), which states that (for land use projects) "vehicle miles travelled exceeding an applicable threshold of significance may indicate a significant impact." This subdivision also states that a lead agency has discretion to choose the most appropriate method to evaluate a project's VMT.

Per Section 2.2.2 of the TAG, a "no impact" determination can be made for a project if either of the following screening criteria are not met for Threshold T-2:

- *T-2.1-1: Would the land use project generate a net increase of 250 or more daily vehicle trips?*
- *T-2.1-2: Would the project generate a net increase in daily VMT?*

If either of the above screening criteria are met, the TAG provides guidance for the further analysis of VMT, as discussed in the following section.

VMT METHODOLOGY

The following describes the methodology by which vehicle trips and VMT are calculated in *City of Los Angeles VMT Calculator Version 1.3* (LADOT, July 2020) (VMT Calculator), as detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, May 2020). LADOT developed the VMT Calculator to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of trips:

- <u>Home-Based Work Production</u>: trips to a workplace destination originating from a residential use

- Home-Based Other Production: trips to a non-workplace destination (e.g., retail, restaurant, etc.) originating from a residential use
- Home-Based Work Attraction: trips to a workplace destination originating from a residential use

As detailed in *City of Los Angeles VMT Calculator Documentation*, the household VMT per capita threshold applies to Home-Based Work Production and Home-Based Other Production trips, and the work VMT per employee threshold applies to Home-Based Work Attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research, December 2018). As noted in the TAG, small-scale commercial components less than 50,000 sf of larger mixed-use development projects are not considered for the purposes of identifying significant work VMT impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT.

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for each Area Planning Commission (APC):

APC	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Source: TAG (LADOT, August 2022)

The Project is located in the West Los Angeles APC.

Other types of trips generated in the VMT Calculator include non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use), Home-Based Other Attraction (trips to a non-workplace destination originating from a residential use), and non-Home-

Based Other Attraction (trips to a non-residential destination originating from a non-residential use). These trip types are not factored into the VMT per capita and VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips are factored into the calculation of total project VMT for screening purposes when determining if VMT analysis would be required.

Travel Behavior Zone (TBZ)

The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles VMT Calculator Documentation*, the development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each census tract in the City and are categorized as follows:

1. *Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network*
2. *Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density*
3. *Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets*
4. *Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network*

The VMT Calculator determines a project's TBZ based on the latitude and longitude of a project address. The Project Site is located in a Suburban Center (Zone 2) TBZ.

Mixed-Use Development Methodology

As detailed in *City of Los Angeles VMT Calculator Documentation*, the VMT Calculator accounts for the interaction of land uses within a mixed-use development and considers the following sociodemographic, land use, and built environment factors for a project area:

- A project's jobs / housing balance
- Land use density of a project
- Transportation network connectivity
- Availability of and proximity to transit
- Proximity to retail and other destinations
- Vehicle ownership rates
- Household size

Trip Lengths

The VMT Calculator determines a project's VMT based on trip length information from the City Travel Demand Forecasting Model, which considers the traffic analysis zone where a project is located to determine the trip length and trip type, which factor into the calculation of a project's VMT.

Population and Employment Assumptions

As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on census data for the City of and employment assumptions derived from multiple data sources, including *2012 Developer Fee Justification Study* (Los Angeles Unified School District, 2012), *Trip Generation Manual, 9th Edition* (ITE, 2012), the San Diego Association of Governments Activity Based Model, the United States Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of *City of Los Angeles VMT Calculator Documentation.*

TDM Measures

Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

1. Parking
2. Transit
3. Education and Encouragement
4. Commute Trip Reductions
5. Shared Mobility
6. Bicycle Infrastructure
7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

PROJECT VMT ANALYSIS

The VMT Calculator was used to evaluate Project VMT for comparison to the VMT impact criteria. Based on guidance from the City, the VMT Calculator was modeled for the Project's land uses, phasing, and density as the primary input. This analysis includes the Project design features of reduced parking supply and providing bicycle parking per the LAMC.

The following assumptions were identified in the VMT Calculator:

- APC: West Los Angeles
    - Household VMT Impact Threshold: 7.4
    - Work VMT Impact Threshold: N/A
- TBZ: Suburban Center
    - Maximum VMT Reduction: 20%

The VMT analysis results based on the VMT Calculator are summarized in Table 9. The detailed output from the VMT Calculator is provided in Appendix E.

As shown in Table 9, the VMT Calculator estimates that the Project would generate 6,427 total daily VMT. It would produce 3,264 home-based production VMT (used to calculate household

VMT per capita). Based on the VMT Calculator residential population estimate, the Project would generate average household VMT per capita of 6.9, which does not exceed the West Los Angeles APC impact threshold of 7.4. Therefore, the Project would not result in a significant VMT impact and no mitigation is required.

CUMULATIVE VMT ANALYSIS

Cumulative effects of development projects are determined based on the consistency with the air quality and GHG reduction goals of *Connect SoCal – The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments [SCAG], Adopted September 2020) (RTP/SCS) in terms of development location, density, and intensity. The RTP/SCS presents a long-term vision for the region's transportation system through Year 2045 and balances the region's future mobility and housing needs with economic, environmental, and public health goals.

As detailed in the TAG, for projects that do not demonstrate a project impact by applying an efficiency-based impact threshold (i.e., household VMT per capita, work VMT per employee) in the impact analysis, a less than significant impact conclusion is sufficient in demonstrating there is no cumulative VMT impact, as those projects are already shown to align with the long-term VMT and GHG goals of the RTP/SCS.

The Project would not result in a significant VMT impact, as detailed above. Therefore, the Project is not anticipated to result in a significant cumulative VMT impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

Thus, the Project would also contribute to the productivity and use of the regional transportation system by providing housing near transit and encourage active transportation by providing new bicycle parking and active street frontages, consistent with RTP/SCS goals. As such, the Project would not result in a cumulative VMT impact.

TABLE 9
VMT ANALYSIS SUMMARY

Project Information	
Address	4112 S Del Rey Avenue
Project Land Uses	
Multi-Family Housing	210 units
Project Location Characteristics [a]	
Area Planning Commission	West Los Angeles
Travel Behavior Zone [b]	Suburban Center
Maximum VMT Reduction [c]	*20%*
Project VMT Analysis [d]	
Daily Vehicle Trips	938
Daily VMT	6,427
Total Household VMT	3,264
Household VMT per Capita [e]	6.9
Impact Threshold	7.4
Significant Impact	**NO**

Notes:

[a] Project Analysis is from VMT Calculator output reports provided in Appendix C.

[b] "Suburban Center" TBZs are characterized in *City of Los Angeles VMT Calculator Documentation* (LADOT and DCP, May 2020) as low-density developments characterized by a mix of land uses with larger blocks and lower intersection density.

[c] The maximum allowable VMT reduction is based on the Project's designated TBZ.

[d] Project features incorporated as TDM measures before mitigation include:

1. Reduced parking supply
2. Bicycle parking per LAMC requirements

[e] Household VMT per Capita is based on the "home-based work production" trip types.

Section 4C: Threshold T-2.2

Substantially Inducing Additional Automobile Travel Analysis

The intent of Threshold T-2.2 is to assess whether a transportation project would induce substantial VMT by increasing vehicular capacity on the roadway network, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

The Project is not a transportation project that would induce automobile travel. Therefore, the Project would not result in a significant impact under Threshold T-2.2 and further evaluation is not required.

Section 4D: Threshold T-3

Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use Analysis

Evaluation is required for projects that propose new access points or modifications along the public ROW (i.e., street dedications) under Threshold T-3. Project access plans were reviewed to determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

ACCESS OVERVIEW

As described in Chapter 1 and shown in Figure 1, vehicular access to the Project Site would be provided via a new driveway on Del Rey Avenue, a designated Local Street, on the north side of the Project Site. The driveway is located on level grade and provides adequate sight distance for drivers both entering and leaving the driveway to observe oncoming traffic and potential hazards and to minimize conflicts with other vehicles, pedestrians, or bicyclists. Additionally, the driveway would replace five existing driveways on Del Rey Avenue, thus substantially reducing potential vehicle conflicts compared with Existing Conditions. Pedestrian and bicycle access would be provided separate from the vehicular access.

The Project driveway would also provide access to an off-street loading area to accommodate mail delivery and moving trucks. Passenger pick-up and drop-off would occur curbside on Del Rey Avenue.

PROJECT HAZARDS ANALYSIS

Potential Geometric Design Hazards

The driveway provides adequate sight distance for vehicles entering and departing the Project Site, as it would be located on a straight and flat section of road. No unusual or new obstacles are presented in the design that would be considered hazardous to vehicles, bicycles, or pedestrians. The driveway would have sufficient capacity to accommodate the estimated inbound and outbound traffic volume and, therefore, no hazards would occur related to operation of the driveway. As further discussed in Section 5B, Project traffic would not substantially affect operating conditions along Del Rey Avenue. Additionally, the vehicular driveway would intersect the alley at a right angle to maximize sight distance.

The Project would provide an off-street loading area to accommodate mail delivery and moving trucks. The access to this area would share the Project driveway and, thus, would not create any additional potential for hazards or obstacles for road users.

Consistency with Modal Priority Networks

As summarized in Chapter 2, Del Rey Avenue is not part of any enhanced network identified in the Mobility Plan. The existing ROW does not meet the Mobility Plan standard for a Local Street; however, the Project would provide an approximate five-foot dedication in order to meet the 30 foot half ROW requirement. No street widening would be required as part of the dedication. There are no bicycle or transit facilities on Del Rey Avenue nor any plans to add them in the future. Nonetheless, the driveway would not preclude or interfere with the implementation of future roadway improvements benefiting transit, pedestrians, or bicycles.

Pedestrian and Bicycle Activity

The Project would intensify pedestrian and bicycle activity on Del Rey Avenue, though not in sufficient quantities to result in a significant conflict with vehicles using the driveway. Further, the Project would result in a net decrease of four driveways, thus promoting a safer environment for pedestrians and bicyclists and minimizing conflict points.

Passenger pick-up and drop-off would occur curbside on Del Rey Avenue. Pedestrian and bicycle access would be located separately from vehicular access, thus reducing conflicts between pedestrians and vehicles.

Based on this review, the Project would not result in any hazards from its design or operation and would not result in a significant impact.

Summary

Based on this review, the Project would not result in any hazards from the design or operation and would not result in a significant impact.

CUMULATIVE HAZARDS ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with Related Projects with access points along the same block as the Project to determine if there may be a cumulatively significant impact. Related Project #1, located at 4040 Del Rey Avenue, is located on the same street as the Project. However, Related Project #1 is located over 600 feet away from the edge of the Project frontage. Therefore, no interference would occur between the driveway operations of the two developments and there would be no potential for cumulative hazards with Project completion.

None of the other Related Projects in Table 3 and Figure 9 are located along the same block as the Project. Therefore, the Project would not result in cumulative impacts that would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

Section 4E
Freeway Safety Analysis

LADOT issued *Interim Guidance for Freeway Safety Analysis* (May 1, 2020) (City Freeway Guidance) identifying City requirements for a CEQA safety analysis of Caltrans facilities as part of a transportation assessment.

ANALYSIS METHODOLOGY

The City Freeway Guidance relates to the identification of potential safety impacts at freeway off-ramps as a result of increased traffic from development projects. It provides a methodology and significance criteria for assessing whether additional vehicle queueing at off-ramps could result in a safety impact due to speed differentials between the mainline freeway lanes and the queued vehicles at the off-ramp.

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. A project would result in a significant impact at such a ramp if each of the following three criteria were met:

1. Under a scenario analyzing future conditions upon project buildout, with project traffic included, the off-ramp queue would extend to the mainline freeway lanes[3].
2. A project would contribute at least two vehicle lengths (50 feet, assuming 25 feet per vehicle) to the queue.
3. The average speed of mainline freeway traffic adjacent to the off-ramp during the analyzed peak hour(s) is greater than 30 mph.

[3] If an auxiliary lane is provided on the freeway, then half the length of the auxiliary lane is added to the ramp storage length.

Should a significant impact be identified, mitigation measures to be considered include TDM measures to reduce a project's trip generation, investments in active transportation or transit system infrastructure to reduce a project's trip generation, changes to the traffic signal timing or lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

PROJECT SAFETY ANALYSIS

As detailed in the freeway off-ramp screening process shown in Table 4 of the MOU provided in Appendix A, based on the Project's trip generation estimates and traffic distribution pattern, the Project would not add 25 or more peak hour trips to any freeway off-ramp. Therefore, no freeway off-ramp analysis is required. Furthermore, the addition of Project trips is not anticipated to cause any freeway off-ramp queues to extend beyond the available storage capacity resulting in queuing impacts. Therefore, no corrective measures would be required.

Chapter 5
Non-CEQA Transportation Analysis

This chapter summarizes the non-CEQA transportation analysis of the Project. It includes an evaluation of Project traffic, proposed access provisions, safety, and circulation operations of the Project, and pedestrian, bicycle, and transit facilities in the vicinity of the Project. This chapter also summarizes the evaluation of the Project's operational conditions, parking supply and requirements, and effects due to Project construction.

Per Section 3.1 of the TAG, any deficiencies identified based on the non-CEQA transportation analysis is "not intended to be interpreted as thresholds of significance, or significance criteria for purposes of CEQA review unless otherwise specifically identified in Section 2." Section 3 of the TAG identifies the following four non-CEQA transportation analyses for reviewing potential transportation deficiencies that may result from a development project:

- Pedestrian, Bicycle, and Transit Access Assessment
- Project Access, Safety, and Circulation Evaluation
- Residential Street Cut-Through Analysis
- Project Construction

The four non-CEQA transportation analyses are reviewed in detail in Sections 5A through 5D. In addition, a review of the proposed parking and the City's parking requirement for the Project is provided in Section 5E.

Section 5A

Pedestrian, Bicycle, and Transit Assessment

This section assesses the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site. Factors to consider when assessing a project's potential effect on pedestrian, bicycle, and transit facilities, include the following:

- Would the project directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian, bicycle, or transit facilities?
- Would a project intensify use of existing pedestrian, bicycle, or transit facilities?

EXISTING FACILITIES

Pedestrians and Bicycles

Existing pedestrian facilities adjacent to the Project Site include a seven-foot wide sidewalk along Del Rey Avenue. No existing sidewalk is present on the west side of the street, opposite of the Project. There are no existing bicycle lanes on the streets adjacent to the Project Site. Vehicular access to the Project would be via a new driveway on the north side of the Project Site and it would replace five existing driveways, reducing conflicts between pedestrians, bicyclists, and vehicles. The Project would also provide an off-street loading area to accommodate mail delivery and moving trucks. Further, the Project would provide an approximate five-foot dedication along Del Rey Avenue and provide a 10-foot front yard setback, allowing space for landscaping and pedestrian amenities. No street widening would be required as part of the dedication. The Project would also provide bicycle parking per the LAMC. Therefore, the Project would improve conditions for pedestrians and bicyclists in the area and would not disrupt existing pedestrian and bicycle facilities. Additionally, the Project would not directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian or bicycle facilities.

Although the Project may intensify use of existing pedestrian and bicycle facilities, none of the volumes of any of those travel modes are anticipated to reach a level where any degradation, capacity constraint, or significant conflict would arise.

Transit

As detailed in Chapter 2 and illustrated in Figure 7, there are transit stops on Lincoln Boulevard, Washington Boulevard, Glencoe Avenue, and Maxella Avenue serving bus lines operated by Culver CityBus and Santa Monica Big Blue Bus. The nearest stops to the Project Site are located at Lincoln Boulevard & Maxella Avenue, serving Santa Monica Big Blue Bus Line 3 and Rapid 3 and Culver CityBus Line 7, and at Lincoln Boulevard & Washington Boulevard, serving Santa Monica Big Blue Bus Line 3 and Rapid 3 and Culver CityBus Line 1, Line 2, and Line 5. All bus stops, except for the southbound stop at Lincoln Boulevard & Washington Boulevard and the eastbound stop at Lincoln Boulevard & Maxella Avenue, have benches available. None of the bus stops, except for the eastbound stop at Lincoln Boulevard & Washington Boulevard, have shelters available.

INTENSIFICATION OF USE

The Project would not directly or indirectly result in a permanent removal of infrastructure or degrade pedestrian or bicycle facilities. Although the Project may intensify use of existing pedestrian and bicycle facilities, there is adequate capacity in existing facilities to accommodate all foreseeable future demand for those facilities. The sidewalk adjacent to the Project Site along Del Rey would be widened by five feet with the ROW dedication and the Project would provide a 10-foot setback along in front of the residential building to accommodate pedestrian amenities and landscaping. Overall, the Project would not result in the deterioration of any existing facilities serving pedestrians or bicyclists.

Transit Ridership

The Project is estimated to add additional ridership to transit in the surrounding area but would not cause ridership to exceed available capacity. If 25% of all Project trips were assumed to be transit trips conservatively, it would generate approximately 31 and 33 new transit riders during the morning and afternoon peak hours, respectively. This was calculated based on the trip generation estimates in Table 4, along with application of an average vehicle occupancy factor of 1.55 for trips in Los Angeles County as identified in *SCAG Regional Travel Demand Model and 2012 Model Validation* (SCAG, March 2016). With a variety of transit lines available within the Study Area, as well as frequent peak period bus service on several nearby transit lines as summarized in Table 2, the Project's transit trip estimate would only add a small fraction of riders compared to the overall capacity of the system. Therefore, the Project would not place a significant strain on transit capacity and would not lead to the degradation of transit facilities or significantly intensify use of transit facilities.

CUMULATIVE ANALYSIS

The Related Projects would result in some additional intensification of pedestrian, bicycle, and transit activity in the Study Area. However, as with the Project, the incremental increase in activity from the Related Projects would not strain the capacity of the sidewalks and bicycle lanes within the Study Area, as those Related Projects are geographically dispersed. Similarly, the Related Project's effect on transit ridership would not strain the capacity of lines within the Study Area as they are dispersed throughout the area and would potentially use different stops or lines to get to their destination.

Further, the recently adopted *2020 Long Range Transportation Plan* (Metro, Adopted 2020), outlines a range of transit and highway projects throughout Los Angeles County that are designed to improve mobility and address future growth. It is recognized that with these plans in place, Metro will continue to maintain and expand regional transit service to accommodate cumulative demand in the region.

Section 5B
Project Access, Safety, and Circulation Assessment

This section summarizes access, safety, and circulation at and around the Project Site. It includes a quantitative evaluation of the Project's access and circulation operations, including the anticipated LOS and vehicle queues at the Study Intersections.

PROJECT ACCESS

Vehicular access to the Project Site would be provided via a new driveway on Del Rey Avenue located on the north side of the Project Site. The Project would also provide an off-street loading area to accommodate mail delivery and moving trucks. Passenger pick-up and drop-off would occur curbside on Del Rey Avenue. The existing five driveways at the Project Site would be removed. Pedestrian access to the residential lobby and ground floor lofts would also be provided along Del Rey Avenue. Access to the bicycle parking would be provided through pedestrian and vehicular access points. The Project Site plan is shown in Figure 1.

Project access for all modes would be designed in accordance with all applicable City requirements and best practices to maximize safety.

OPERATIONAL EVALUATION

Intersection operation conditions were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of six signalized Study Intersections were selected for detailed transportation analysis in consultation with LADOT.

The following traffic conditions were developed and analyzed as part of this study:

- Existing Conditions (Year 2022) – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions.

- Existing with Project Conditions (Year 2022) – This analysis condition analyzes the potential intersection operating conditions that could be expected if the Project were built under existing conditions. In this analysis, the Project-generated traffic is added to the Existing Conditions.

- Future without Project Conditions (Year 2026) – This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by Year 2026. The Future without Project Conditions are projected by adding ambient traffic growth and traffic from related projects to Existing Conditions. This analysis provides the future base condition against which the Project traffic increases will be evaluated.

- Future with Project Conditions (Year 2026) – This analysis condition analyzes the potential intersection operating conditions that could be expected if the Project is fully occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2026).

Methodology

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the City to analyze intersection operating conditions. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections. Table 10 presents a description of the LOS categories and delay thresholds for both signalized and unsignalized intersections, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F.

The queue lengths were estimated using Synchro, which reports the 95th percentile queue lengths at intersections in vehicles per lane, which can be converted into linear distance by multiplying the vehicle queue by an average of 25 feet per vehicle. The reported queues are calculated using the HCM methodology.

LOS and queuing worksheets for each scenario are provided in Appendix F.

Existing with Project Conditions

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 3 and shown in Figure 14 were added to the Existing Conditions morning and afternoon peak hour traffic volumes shown in Figure 8. The resulting volumes are illustrated in Figure 15 and represent Existing with Project Conditions, assuming Project operation under Existing Conditions.

Intersection LOS. Table 11 summarizes the intersection LOS under Existing Conditions and Existing with Project Conditions during the weekday morning and afternoon peak hours for the Study Intersections. As shown, four of the six Study Intersections would operate at LOS D or better during both the morning and afternoon peak hours under both Existing Conditions and Existing with Project Conditions. Intersection #1, Lincoln Boulevard & Washington Boulevard, operates at LOS E during both the morning and afternoon peak hours under both Existing Conditions and Existing with Project Conditions. Intersection #5, Del Rey Avenue & Maxella Avenue, operates at LOS D under Existing Conditions and LOS E under Existing with Project Conditions during the afternoon peak hour. As this intersection is a two-way stop-controlled intersection, the delay reported at this location represents the worst movement delay (the southbound left-turn movement, which represents a small fraction of the overall volume of vehicles through the intersection) and not the average delay of the intersection. The overall intersection would still operate at LOS A based on average delay, as shown in Appendix F.

The Project would contribute imperceptibly to average delay at each location.

Future with Project Conditions

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 3 and shown in Figure 14 were added to the Future without Project Conditions (Year 2026) morning and afternoon peak hour traffic volumes shown in Figure 11. The resulting volumes are illustrated in Figure 16 and represent Future with Project Conditions after development of the Project in Year 2026.

Intersection LOS. Table 12 summarizes the results of the Future without Project Conditions and Future with Project Conditions during the weekday morning and afternoon peak hours for the six Study Intersections. As shown, under both Future without Project Conditions and Future with Project Conditions, three intersections would operate at LOS D or better during both the morning and afternoon peak hours. Three intersections would operate at LOS E or F during one or both peak hours, with and without Project traffic, including Intersections #1 (Lincoln Boulevard & Washington Boulevard), #3 (Glencoe Avenue & Washington Boulevard), and #5 (Del Rey Avenue & Maxella Avenue). At each location, the Project would contribute imperceptibly to average delay, including at Intersection #5 (though it would worsen worst-case delay).

INTERSECTION QUEUING ANALYSIS

The six Study Intersections were analyzed to determine whether the lengths of intersection turning lanes were adequate to accommodate vehicle queue lengths using the HCM analysis results from Appendix F.

The TAG establishes the following criteria for unacceptable or extended queuing:

- *Additional queue along through lanes and either of the following conditions are expected:*
  - *The projected peak hour intersection LOS is D and the through lane queue increases by greater than 75 feet on any approach with the directional approach LOS at E or F, or*
  - *The projected peak hour intersection LOS is E or F and the through lane queue increases by greater than 50 feet on any approach with the directional approach LOS at E or F.*
- *Spill over from turn pockets into through lanes.*
- *Block cross streets or alleys.*
- *Spill over from drive-throughs into streets.*
- *Contribute to "gridlock" congestion. For the purposes of this section, "gridlock" is defined as the condition where traffic queues between closely-spaced intersections and impedes the flow of traffic through upstream intersections.*

Although intersections in the vicinity may currently experience long queues or street blockage during peak hours, the Project would not add many vehicle trips to the Study Area. The Project minimally adds to queues (less than two vehicles of queue length) for each of the movements analyzed within the Study Area. The Project would not cause spill over from turn pockets into through lanes, nor would it cause blockage of any additional cross streets or alleys. The Project would also not cause a congestion condition impeding the flow of traffic from upstream intersections. Therefore, the Project would not cause unacceptable or extended queuing within the Study Area.

TABLE 10
INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Delay [a]	
		Signalized Intersections	Unsignalized Intersections
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10	≤ 10
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	> 10 and ≤ 20	> 10 and ≤ 15
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	> 20 and ≤ 35	> 15 and ≤ 25
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	> 35 and ≤ 55	> 25 and ≤ 35
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	> 55 and ≤ 80	> 35 and ≤ 50
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80	> 50

Notes:
Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).
[a] Measured in seconds.

TABLE 11
EXISTING CONDITIONS (YEAR 2022)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions	
			Delay	LOS	Delay	LOS
1.	Lincoln Boulevard & Washington Boulevard	AM PM	56.3 69.4	E E	56.2 69.6	E E
2. [a]	Del Rey Avenue & Washington Boulevard	AM PM	17.1 21.1	C C	17.4 21.1	C C
3.	Glencoe Avenue & Washington Boulevard	AM PM	35.5 51.9	D D	35.4 53.3	D D
4.	Lincoln Boulevard & Maxella Avenue	AM PM	31.2 44.5	C D	31.9 44.5	C D
5. [a]	Del Rey Avenue & Maxella Avenue	AM PM	18.0 32.7	C D	18.2 37.0	C E
6.	Glencoe Avenue & Maxella Avenue	AM PM	26.4 16.8	C B	26.3 16.9	C B

Notes:

Delay is measured in seconds per vehicle and represents the average intersection delay.

[a] Intersection operates as a two-way stop-controlled intersection. Output is based on movement with the worst-case delay.

TABLE 12
FUTURE CONDITIONS (YEAR 2026)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions	
			Delay	LOS	Delay	LOS
1.	Lincoln Boulevard & Washington Boulevard	AM PM	66.0 84.8	E F	66.2 85.0	E F
2. [a]	Del Rey Avenue & Washington Boulevard	AM PM	21.0 26.0	C D	21.6 26.0	C D
3.	Glencoe Avenue & Washington Boulevard	AM PM	58.7 89.8	E F	58.3 91.5	E F
4.	Lincoln Boulevard & Maxella Avenue	AM PM	30.8 53.6	C D	31.1 53.6	C D
5. [a]	Del Rey Avenue & Maxella Avenue	AM PM	31.7 107.0	D F	33.0 130.9	D F
6.	Glencoe Avenue & Maxella Avenue	AM PM	37.7 21.5	D C	37.6 22.0	D C

Notes:

Delay is measured in seconds per vehicle and represents the average intersection delay.
[a] Intersection operates as a two-way stop-controlled intersection. Output is based on movement with the worst-case delay.

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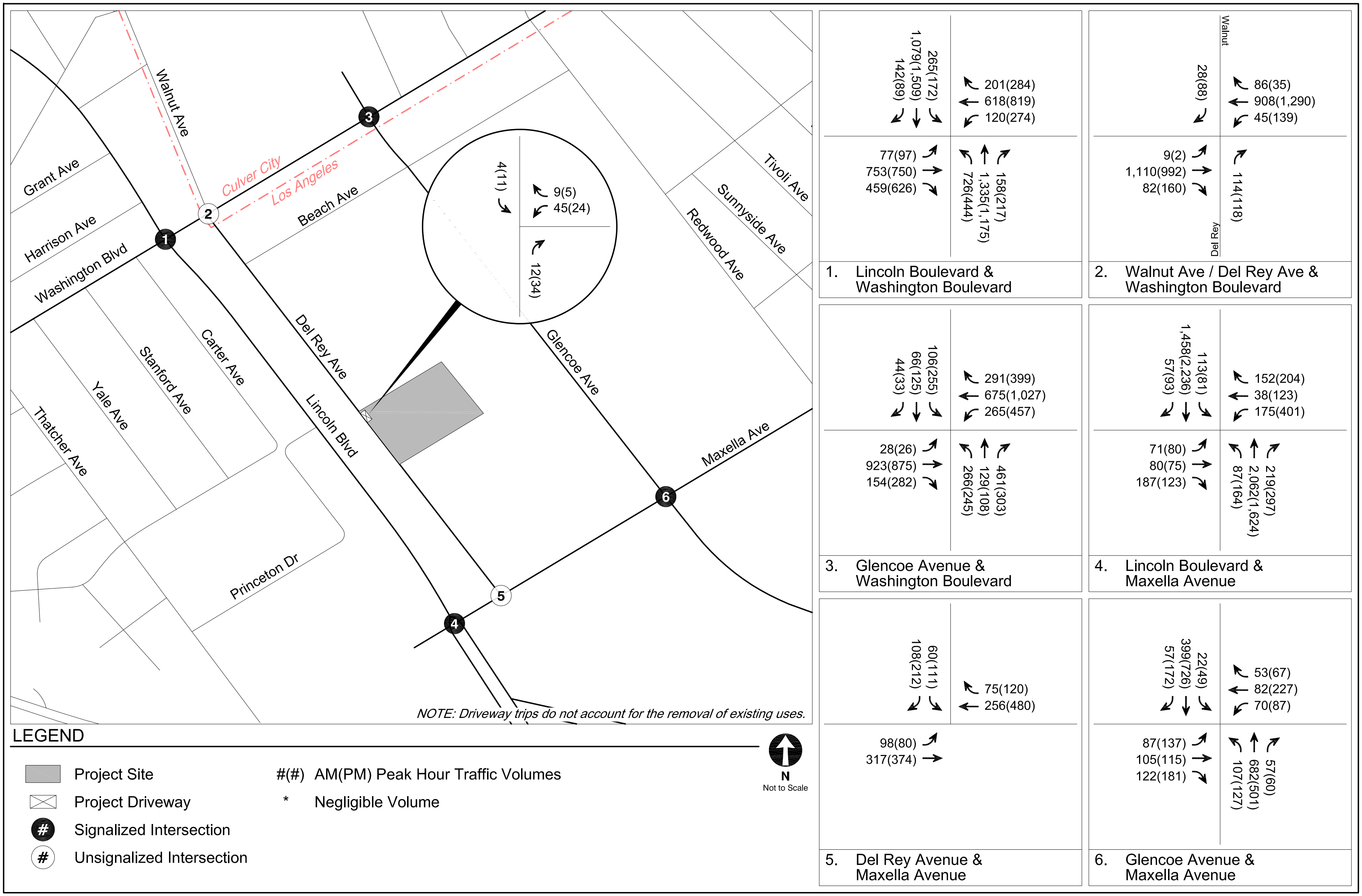
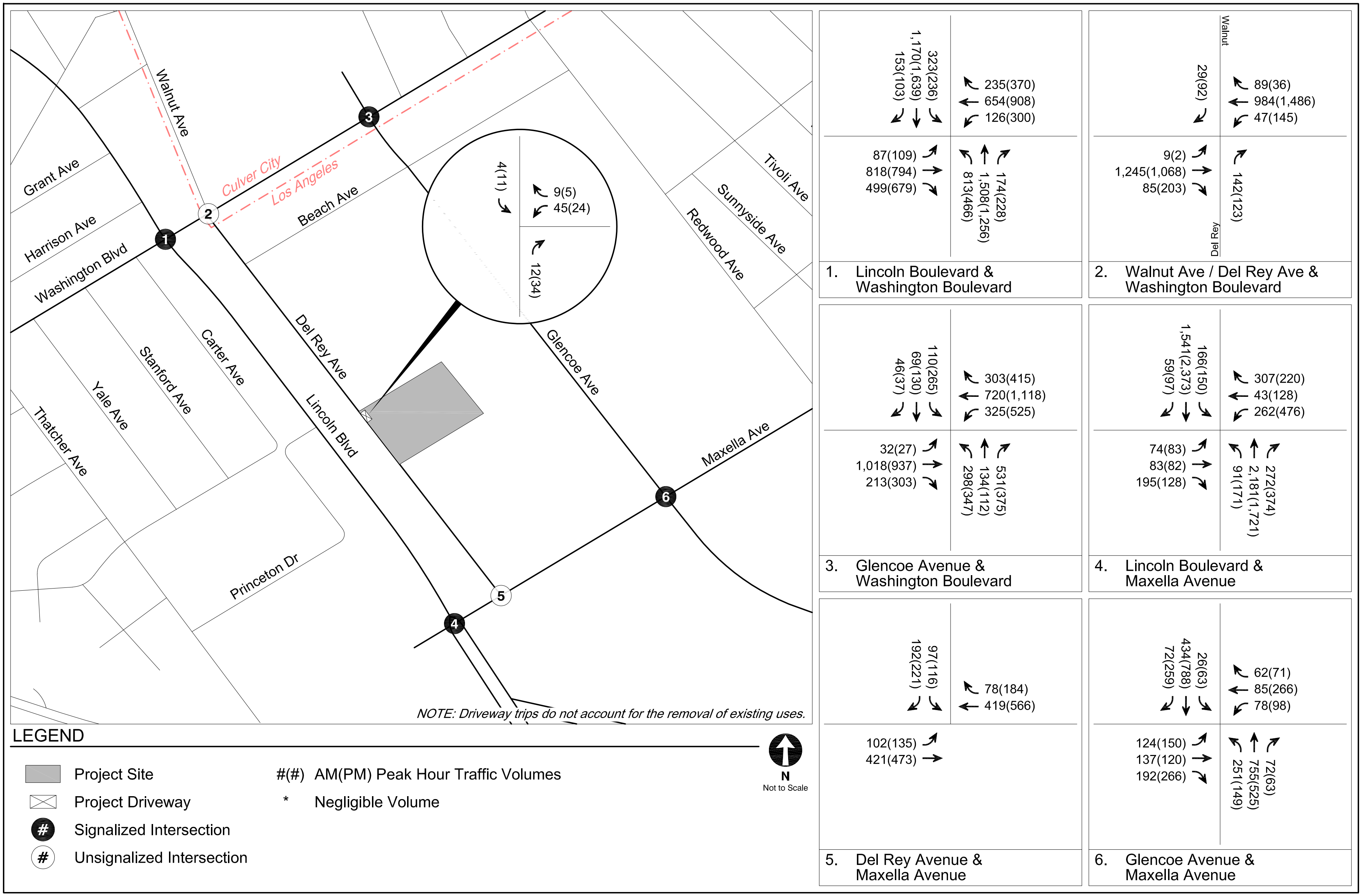


EXISTING WITH PROJECT CONDITIONS (YEAR 2022)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 15



FUTURE WITH PROJECT CONDITIONS (YEAR 2026)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 16

Section 5C
Residential Street Cut-Through Analysis

This chapter summarizes the residential street cut-through analysis for the Project. The objective of the residential street cut-through analysis is to determine potential increases in average daily traffic volumes on designated Local Streets, as classified in the City's General Plan, that can be identified as cut-through trips generated by the Project and that can adversely affect the character and function of those streets. Per Section 3.5.2 of the TAG, cut-through trips are defined as those that feature travel along a Local Street with residential land-use frontage, as an alternative to a higher classification street segment, to access a destination that is not within the neighborhood within which the Local Street is located.

The Project is a residential development located on a Local Street developed with a mix of residential and commercial uses. Project traffic will utilize Del Rey Avenue to travel to and from the site, but this would not qualify as cut-through traffic as it is not an alternative to a higher classification street segment and is accessing a destination within the neighborhood. Thus, the Project is not required to conduct a Local Residential Street Cut-Through Analysis.

Section 5D
Construction Analysis

This section summarizes the construction schedule and construction analysis for the Project. The construction analysis relates to the temporary effects of Project construction activities and was conducted in accordance with Section 3.4, Project Construction, of the TAG.

CONSTRUCTION EVALUATION CRITERIA

Section 3.4.3 of the TAG identifies three types of in-street construction effects on pedestrian, bicycle, transit, or vehicle circulation that require review. The three types of effects and related populations are:

1. Temporary transportation constraints – potential effects on the transportation system
2. Temporary loss of access – potential effects on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential effects on transit service

The factors used to determine the magnitude of a project's effects involve the likelihood and extent to which the effect might occur, the potential inconvenience caused to users of the transportation system, and consideration for public safety. Construction activities could potentially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. As detailed in Section 3.4.4 of the TAG, the proposed construction plans should be reviewed to determine whether construction activities would require any of the following actions:

- Street, sidewalk, or lane closures
- Block existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street
- Modification of access to transit stations, stops, or facilities during revenue hours

- Closure or movement of an existing bus stop or rerouting of an existing bus line
- Creation of transportation hazards

PROJECT CONSTRUCTION DETAILS

The construction information used in this section was provided by the Applicant.

<u>Schedule</u>

The Project is anticipated to be constructed over a period of approximately 26 months. Typical construction activity would occur between 7:00 AM and 5:30 PM on weekdays and between 8:00 AM and 5:30 PM on Saturdays, in conformance with the City's construction hour restrictions. Construction would not occur on Sundays or federal holidays, though construction-related street or sidewalk closures may remain in place even on days construction does not occur.

<u>Effects on Access, Transit, and Parking</u>

Construction activities would be primarily contained within the Project Site boundaries to the extent feasible. Some staging and deliveries may occur adjacent to the Project Site on Del Rey Avenue, which would potentially encroach on the public ROW (e.g., sidewalks and/or street parking) along Del Rey Avenue. Further, construction may intermittently encroach into the public ROW adjacent to the Project Site in order to complete utility work and off-site improvements. No lane closures on Del Rey Avenue are anticipated. Measures to provide adequate alternative routes for pedestrians would be implemented, per the LAMC.

No transit stops are adjacent to the Project Site on Del Rey Avenue; therefore, Project construction would not affect transit operations.

Construction Traffic

Project construction would result in truck traffic (haul trucks, delivery trucks, cement trucks) and worker traffic to and from the Project Site on a daily basis. Project Site access for construction vehicles would be provided on Del Rey Avenue in order to facilitate efficient movement of equipment and materials around the Project Site. Detailed information was provided by the Applicant about the numbers of trucks and workers that would be required during each phase of Project construction as well as the times of day the trucks and workers would travel to and from the Project Site.

Trucks. Haul trucks carrying dirt or debris would travel to and from the Project Site regularly throughout the workday. A maximum of approximately 55 haul trucks per day would access the Project Site during grading and excavation, which is anticipated to last approximately three months. To the extent feasible, these trucks can be scheduled to avoid the commuter peak hours.

Cement trucks travel to and from the Project Site on cement pour days. On such days, the cement trucks typically arrive over the first half of the day and the second half of the day is spent smoothing the cement as it begins to set.

Like haul trucks, trucks delivering materials and equipment can be scheduled to arrive to the Project Site during off-peak hours. Delivery truck traffic would be highest during building construction. This period of construction generally overlaps with cement pour days, as lower floors of the buildings can be built out with interiors and exterior skins while the concrete is poured for upper floors.

Workers. Construction workers typically arrive to the Project Site before 7:00 AM and depart by 3:00 PM, thereby not traveling during the morning or afternoon peak hours. During construction, parking for construction workers would be provided within an off-site parking facility. The peak number of construction workers anticipated in a single day during the building phase is 250.

EFFECTS OF PROJECT CONSTRUCTION

This section assesses the severity of the Project's effects on access, transit, and parking during construction, as well as the effects of construction traffic. The measures proposed below to minimize the negative effects of Project construction would be incorporated into a Construction Management Plan, summarized at the end of this chapter.

On-Street Parking

Unmetered on-street parking is permitted on Del Rey Avenue, so construction may result in a temporary loss of up to three on-street parking spaces adjacent to the Project Site on the east side of the street. Coordination with LADOT would be included in the Construction Management Plan as a result. It is anticipated that the temporary loss in parking would mostly occur during the building construction phase to complete utility work and off-site improvements.

Access and Public Transit

As detailed above, Project construction would not impede access to any existing public transit stops, though it may result in intermittent on-street parking and sidewalk closures along Del Rey Avenue throughout Project construction. As part of the requirements of the Construction Management Plan, temporary traffic controls would be provided to direct traffic around any closures and to maintain emergency access. The Construction Management Plan would seek to minimize the amount of time that closures would be required.

Construction Traffic

Project construction would result in varying levels of truck and worker traffic to and from the Project Site on a daily basis, including a maximum of approximately 55 trucks and 250 workers. However, the construction traffic would mostly occur outside of the peak hour periods, as the Construction Management Plan would include measures to limit the amount of peak hour construction-related traffic.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate and feasible:

- Scheduling of workdays to begin and end prior to the morning and afternoon peak hours, respectively, so as to minimize worker trips during those peak hours.
- Scheduling of construction-related deliveries and haul trips to occur outside the commuter peak hours to reduce the effect on traffic flow on surrounding streets.
- Planning and scheduling of construction activities so as to minimize the duration of sidewalk and/or lane closures (if necessary).
- Provision of worker parking in designated off-site private parking areas, and on-site after underground parking garage is completed.
- Prohibition of worker parking on residential streets in the Project Site vicinity.
- Temporary traffic control during all construction activities adjacent to public ROW to improve traffic flow on public roadways.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers as appropriate.

Section 5E
Parking

This section provides a review of Project parking supply and requirements.

PARKING SUPPLY

All Project parking would be provided on-site. The Project would provide a total of 282 automobile spaces and 142 bicycle spaces (128 long-term spaces and 14 short-term spaces) in a five-level above-ground parking garage.

VEHICULAR PARKING CODE REQUIREMENTS

The LAMC details City parking requirements for new developments. Table 13 summarizes the Project's standard LAMC parking requirement based on the Project's anticipated residential unit mix by applying rates from LAMC Section 12.21.A.4. As shown, a total of 344 standard parking spaces would be required for the Project based on standard LAMC rates.

However, the Project qualifies for a code parking reduction as outlined in *State of California Assembly Bill 2345* (Gonzalez, 2020) (AB 2345) for density bonus projects. As shown in Table 13, AB 2345 lowers the parking ratio for apartment units larger than a studio. Unlike the LAMC, studio and one-bedroom units have the same parking rate as well as two- and three-bedroom units. With application of the reduction, 256 parking spaces would be required. Thus, the Project's provision of 282 parking spaces would meet the minimum requirements.

BICYCLE PARKING CODE REQUIREMENTS

The LAMC also requires bicycle parking to be provided. Table 14 summarizes the bicycle parking requirements for the Project based on LAMC Section 12.21.A.16, including distinct requirements for the number of long-term spaces and short-term spaces. Long-term spaces are for bicycle storage overnight or longer and are typically used by residents, while short-term spaces are more easily accessible for faster turnover as they are typically used for hours or less at a time and thus are typically used by visitors. As shown in Table 14, the residential use requirement varies with the number of units provided.

The Project requires a total of 142 bicycle parking spaces, including 128 long-term and 14 short-term spaces. With a proposed supply of 142 bicycle parking spaces, this requirement would be satisfied.

TABLE 13
VEHICLE PARKING CODE REQUIREMENTS

Land Use	Size	Parking Rate	Total Spaces
Los Angeles Municipal Code Requirements [a]			
Residential			
< 3 habitable rooms (studio)	33 du	1.0 space per 1 du	33
= 3 habitable rooms (1 bedroom)	86 du	1.5 spaces per 1 du	129
> 3 habitable rooms (2+ bedrooms)	91 du	2.0 spaces per 1 du	182
		Total Standard Code Parking Requirement	**344**
Assembly Bill 2345 Parking Requirement [b]			
Residential			
Studio and 1 bedroom	119 du	1.0 space per 1 du	119
2-3 bedroom	91 du	1.5 spaces per 1 du	137
		Total Assembly Bill 2345 Code Parking Requirement	**256**
		Total Parking Provided	**282**

Notes:
du = dwelling unit.
[a] Parking rates per Section 12.21.A4(a-c) of the Los Angeles Municipal Code.
[b] AB 2345 is an amendment to the State Density Bonus Law and sets new minimum parking requirements for all Density Bonus projects, effectively replacing LAMC 12.22 A.25(d)(1).

TABLE 14
BICYCLE PARKING CODE REQUIREMENTS

Land Use	Size	Short-Term		Long-Term	
		Rate [a]	Requirement	Rate [a]	Requirement
Residential (1-25 du)	25 du	1.0 space per 10 du	3 sp	1.0 space per 1 du	25 sp
Residential (26-100 du)	75 du	1.0 space per 15 du	5 sp	1.0 space per 1.5 du	50 sp
Residential (101-200 du)	100 du	1.0 space per 20 du	5 sp	1.0 space per 2.0 du	50 sp
Residential (201+ du)	10 du	1.0 space per 40 du	1 sp	1.0 space per 4.0 du	3 sp
		Total Short-Term	**14 sp**	**Total Long-Term**	**128 sp**
				Total Code Bicycle Parking Requirement	**142 sp**

Notes:
[a] Bicycle requirements as calculated by Section 12.21.A.16 of *Los Angeles Municipal Code (LAMC)* and proposed amendments per Case No. CPC-2016-4216-CA and Council File No. 12-1297-S1.

Chapter 6

Summary and Conclusions

This study was undertaken to analyze the potential transportation impacts of the Project on the transportation system. The following summarizes the results of this analysis:

- The Project is located at 4112 Del Rey Avenue.
- The Project proposes 210 apartment units and is anticipated to be completed in Year 2026.
- The Project would provide a total of 282 vehicle parking spaces and 128 long-term and 14 short-term bicycle parking spaces, which meets requirements.
- Vehicular access would be provided via one full-access driveway on the north side of the Project Site, providing access to Del Rey Avenue. The Project would also provide an off-street loading area to accommodate mail delivery and moving trucks. Passenger pick-up and drop-off would occur curbside on Del Rey Avenue.
- The Project is located within 0.5 miles of a High-Quality Transit Corridor (a corridor with transit service at least every 15 minutes during the peak periods).
- The Project is estimated to generate 34 new morning peak hour trips and 41 new afternoon peak hour trips.
- The Project would not conflict with the City's plans, programs, ordinances, and polices and would not result in any geometric design hazard impacts.
- The Project would not result in VMT impacts and would not require mitigation.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The addition of Project trips would not adversely affect any residential Local Streets.
- Construction traffic would be generated outside of the commuter morning and afternoon peak hours to the extent feasible. A Construction Management Plan would be prepared to ensure that construction impacts are minimized.

References

2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element, Los Angeles Department of City Planning, adopted March 1, 2011.

2010 Congestion Management Program, Los Angeles County Metropolitan Transportation Authority, 2010.

2012 Developer Fee Justification Study, Los Angeles Unified School District, 2012.

2020 Long Range Transportation Plan, Los Angeles County Metropolitan Transportation Authority, Adopted September 2020.

City of Los Angeles VMT Calculator Documentation, Los Angeles Department of Transportation and Los Angeles Department of City Planning, May 2020.

City of Los Angeles VMT Calculator Version 1.3, Los Angeles Department of Transportation, July 2020.

Citywide Design Guidelines, Los Angeles City Planning Urban Design Studio, October 2019.

Connect SoCal – The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy, Southern California Association of Governments, Adopted September 2020.

Culver City Bicycle & Pedestrian Action Plan, Culver City, June 2020.

Culver City Bicycle and Pedestrian Master Plan, Culver City, November 2010.

Culver City General Plan Circulation Element, City of Culver City, September 1996.

Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

Interim Guidance for Freeway Safety Analysis, Los Angeles Department of Transportation, May 2020.

Los Angeles Municipal Code, City of Los Angeles.

Mobility Plan 2035, An Element of the General Plan, Los Angeles Department of City Planning, September 2016.

Palms – Mar Vista – Del Rey Community Plan, Los Angeles Department of City Planning, 1997

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan, Los Angeles Department of City Planning, March 2015.

Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, 2010.

SCAG Regional Travel Demand Model and 2012 Model Validation, Southern California Association of Governments, March 2016.

State of California Assembly Bill 2345, Gonzalez, 2020.

State of California Senate Bill 743, Steinberg, 2013.

Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, December 2018.

Transportation Assessment Guidelines, Los Angeles Department of Transportation, August 2022.

Trip Generation Manual, 9th Edition, Institute of Transportation Engineers, 2012.

Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025, City of Los Angeles, August 2015.

Appendix A

Memorandum of Understanding

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: La Terra Marina Del Rey

Project Address: 4112 Del Rey Avenue

Project Description: The Project proposes to construct a new six story residential building with 210 apartment units. This development would replace 62,467 sf of existing space, of which 20,789 sf of office space and 11,076 sf of manufacturing space is in active use.

LADOT Project Case Number: CTC22-113485 Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature[1], that are being considered for this project:

✓	Reduced Parking Supply[2]	✓	Bicycle Parking and Amenities		Parking Cash Out

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc.) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

1 ______ 4 ______
2 ______ 5 ______
3 ______ 6 ______

III. TRIP GENERATION

Trip Generation Rate(s) Source: ITE 10th Edition / Other ITE 11th Ed

Trip Generation Adjustment *(Exact amount of credit subject to approval by LADOT)*	**Yes**	**No**
Transit Usage	☑	☐
Existing Active or Previous Land Use	☑	☐
Internal Trip	☐	☑
Pass-By Trip	☐	☑
Transportation Demand Management (See above)	☐	☑

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ■ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	-14	48	34
PM Trips	39	2	41

NET Daily Vehicle Trips (DVT)
______ DVT (ITE ___ ed.)
799 DVT (VMT Calculator ver. 1.3)

[1] At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.
[2] Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.

IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2026 Ambient Growth Rate: 1 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

STUDY INTERSECTIONS and/or STREET SEGMENTS:
(May be subject to LADOT revision after access, safety, and circulation evaluation.)

1 See Table 1 4 ____
2 ____ 5 ____
3 ____ 6 ____

Provide a separate list if more than six study intersections and/or street segments.

Is this Project located on a street within the High Injury Network? ☐ Yes ■ No

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

a. Does the project exceed 1,000 net DVT? ☐ Yes ■ No
b. Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ■ No
c. Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ■ No

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., complete **Attachment C.1: Access Assessment Criteria**.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should also be submitted to the Department of City Planning for cursory review.

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	☑	☐	☐
*Project Vehicle Peak Hour trips at each study intersection	☑	☐	☐
*Project Vehicle Peak Hour trips at each project access point	☑	☐	☐
*Project trip distribution percentages at each study intersection	☑	☐	☐
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	☑	☐	☐
Pedestrian access points and any pedestrian paths	☑	☐	☐
Pedestrian loading zones	☐	☐	☑
Delivery loading zone or area	☐	☐	☑
Bicycle parking onsite	☑	☐	☐
Bicycle parking offsite (in public right-of-way) Not shown on site plan	☐	☑	☐

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

VIII. FREEWAY SAFETY ANALYSIS SCREENING

See Table 4

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☐ YES ■ NO

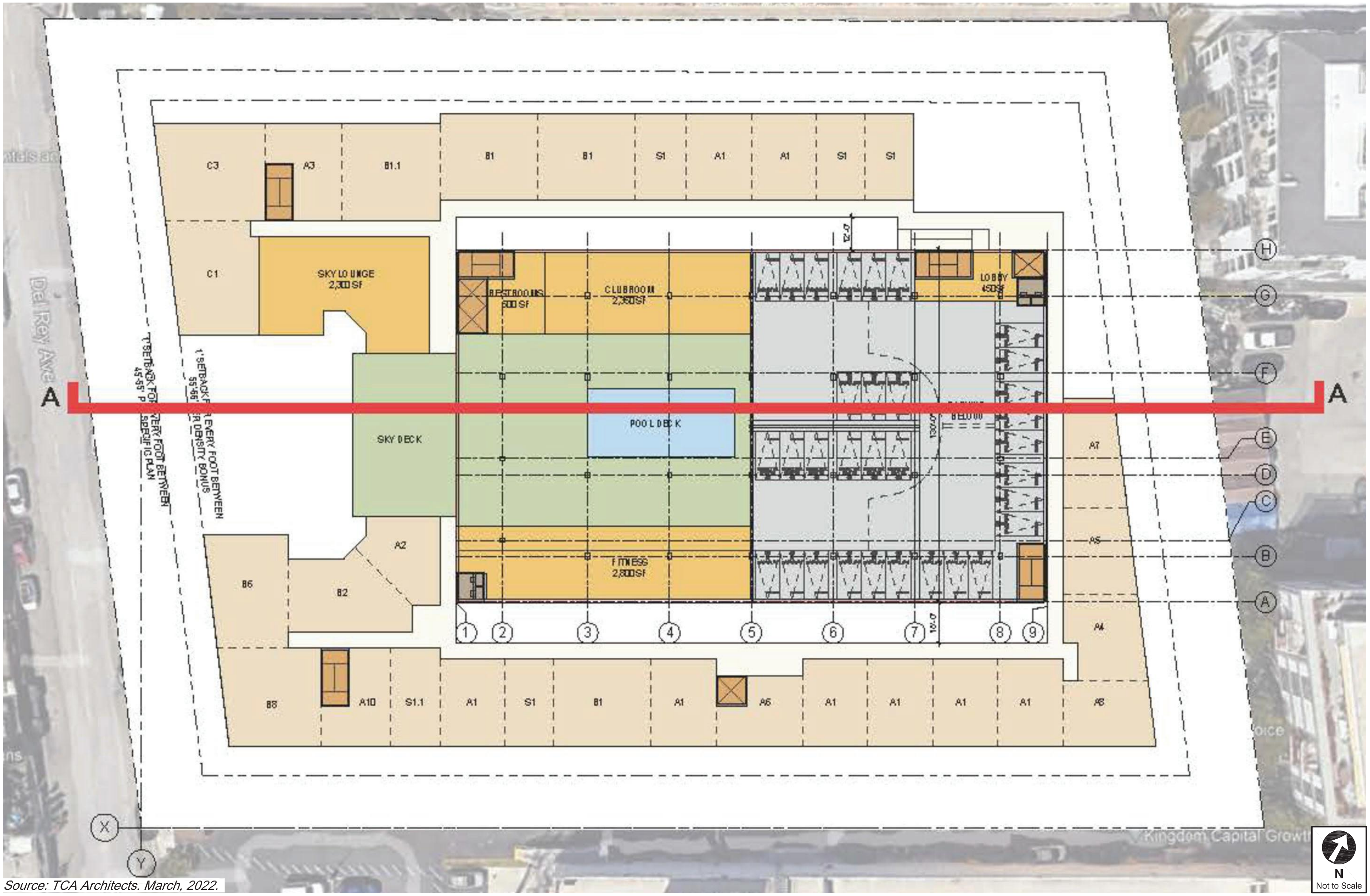
Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

IX. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Gibson Transportation Consulting, Inc.	MDR Investors, LLC
Address:	555 W 5th Street, Suite #3375. Los Angeles, CA. 90013	1880 Century Park East, Suite #1017 Los Angeles, CA 90067
Phone Number:	213-683-0088	310-552-0065
E-Mail:	jchambers@gibsontrans.com	justinf@laterradev.com

Approved by:	x [signature]	9/1/22	x Robert Sanchez (Sep 6, 2022 12:55 PDT)	
	Consultant's Representative	Date	LADOT Representative	**Date
Adjacent Municipality:		Approved by:		
		(if applicable)	Representative	Date

**MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.



Source: TCA Architects. March, 2022.

PROJECT SITE PLAN

FIGURE 1

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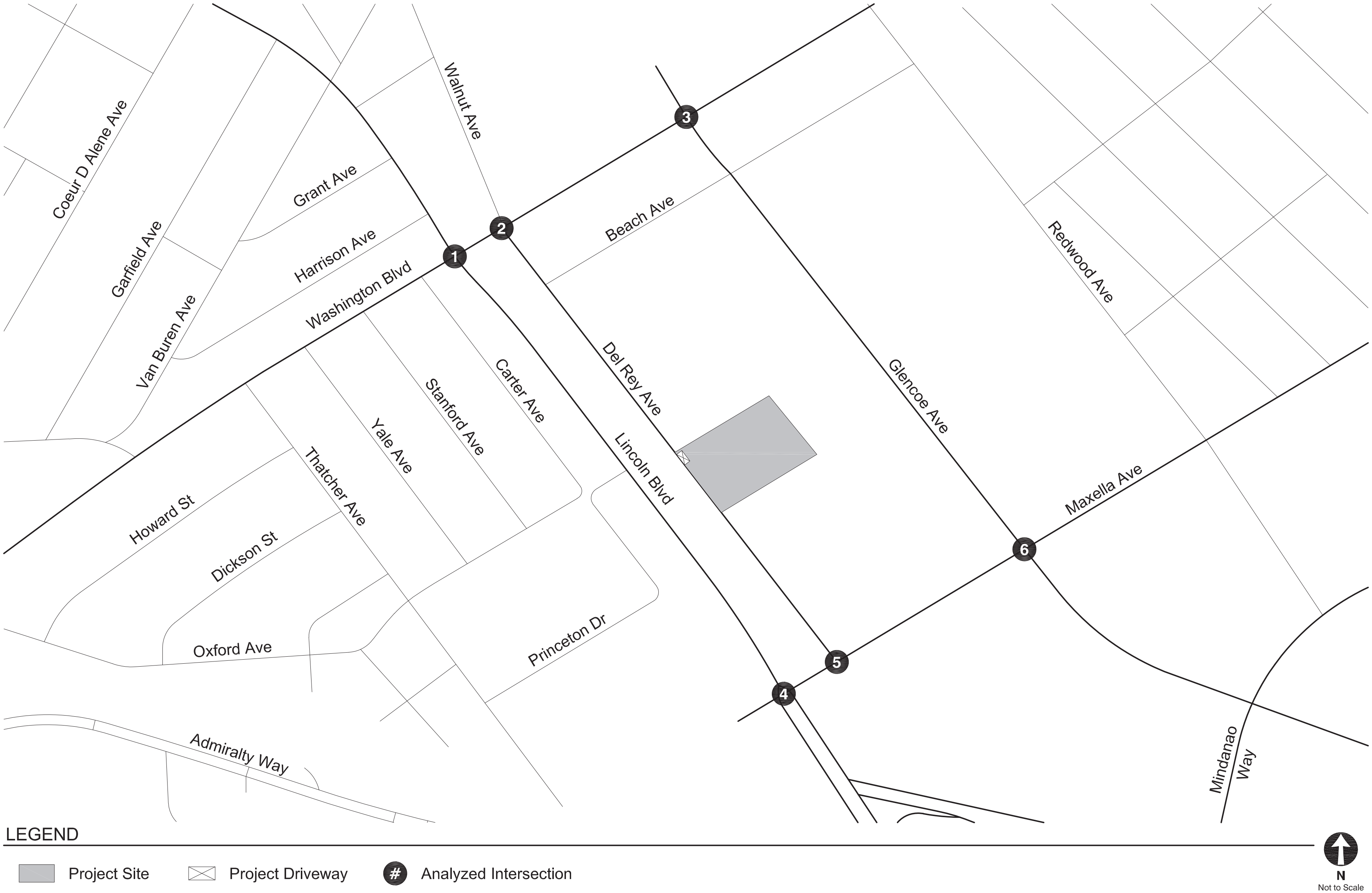
transportation consulting, inc.

PROJECT SITE LOCATION

FIGURE
2



LEGEND

Project Site — Project Driveway — # Analyzed Intersection

STUDY AREA AND ANALYZED INTERSECTIONS

FIGURE 3

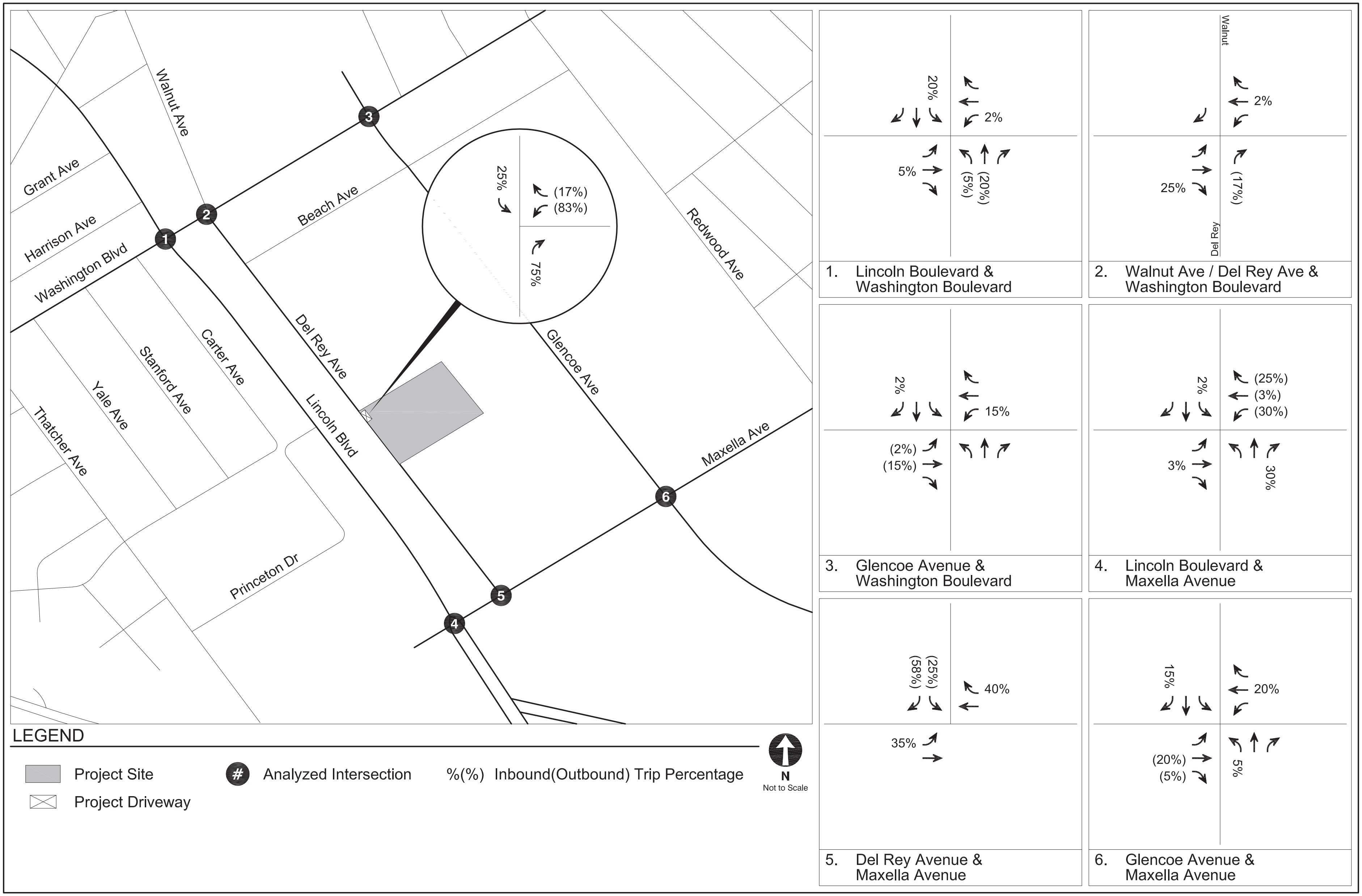
TABLE 1
STUDY INTERSECTIONS

No.	Intersection	Jurisdiction
Signalized Intersections		
1.	Lincoln Boulevard & Washington Boulevard	City of Los Angeles
2.	Del Rey Avenue & Washington Boulvard	City of Los Angeles / City of Culver City
3.	Glencoe Avenue & Washington Boulevard	City of Culver City
4.	Lincoln Boulevard & Maxella Avenue	City of Los Angeles
5.	Del Rey Avenue & Maxella Avenue	City of Los Angeles
6.	Glencoe Avenue & Maxella Avenue	City of Los Angeles

TABLE 2
LA TERRA MARINA DEL REY
TRIP GENERATION ESTIMATES

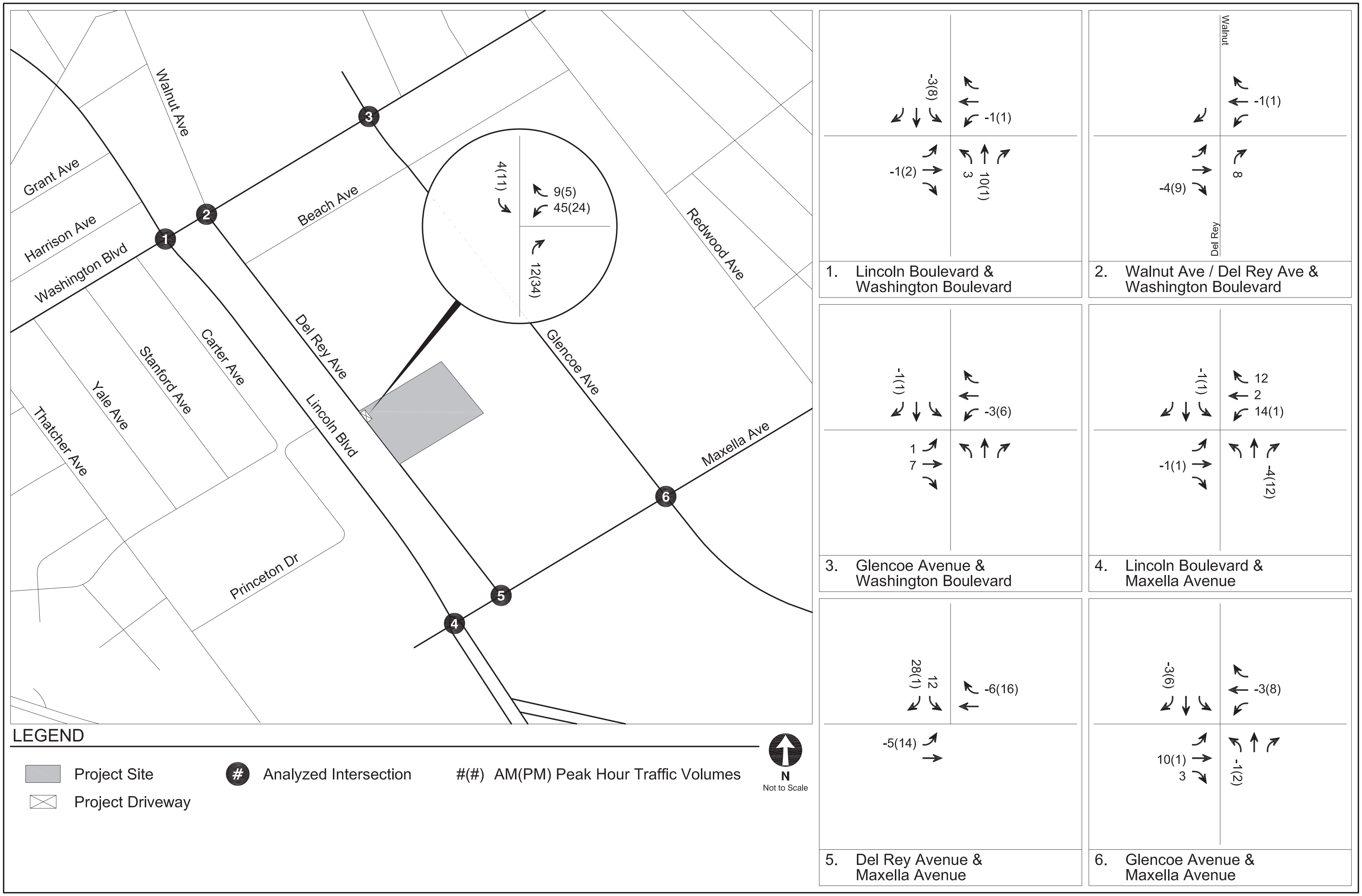
Land Use	ITE Land Use	Size	Weekday					
			Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates [a]								
Manufacturing	140	per 1,000 sf	76%	24%	0.68	31%	69%	0.74
Multifamily Housing (Mid-Rise)	221	per du	23%	77%	0.37	61%	39%	0.39
General Office	710	per 1,000 sf	88%	12%	1.52	17%	83%	1.44
Proposed Project								
Multifamily Housing (Mid-Rise)	221	210 du	18	60	78	50	32	82
Less 10% Transit/Walk Adjustment [b]			*(2)*	*(6)*	*(8)*	*(5)*	*(3)*	*(8)*
Subtotal - Proposed Project Trips			**16**	**54**	**70**	**45**	**29**	**74**
Existing Active Uses to be Removed [c]								
Manufacturing	140	11.076 ksf	6	2	8	2	6	8
Less 10% Transit/Walk Adjustment [b]			*(1)*	*0*	*(1)*	*0*	*(1)*	*(1)*
General Office	710	20.789 ksf	28	4	32	5	25	30
Less 10% Transit/Walk Adjustment [b]			*(3)*	*0*	*(3)*	*(1)*	*(3)*	*(4)*
Subtotal - Existing Trips to be Removed			**30**	**6**	**36**	**6**	**27**	**33**
Total - Net New Project Trips			**(14)**	**48**	**34**	**39**	**2**	**41**

Notes
[a] Source: *Trip Generation, 11th Edition,* Institute of Transportation Engineers, 2021.
[b] Per LADOT's *Transportation Assessment Guidelines* (LADOT, 2019), the Project Site is located within a 0.25 miles or one quarter mile walking distance from a Big Blue Bus Rapid 3 stop, therefore a 10% transit adjustment was applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments.
[c] The Project would replace a total of 62,467 sf of existing space, of which 20,789 sf of office space and 11,076 sf of manufacturing space is in active use.



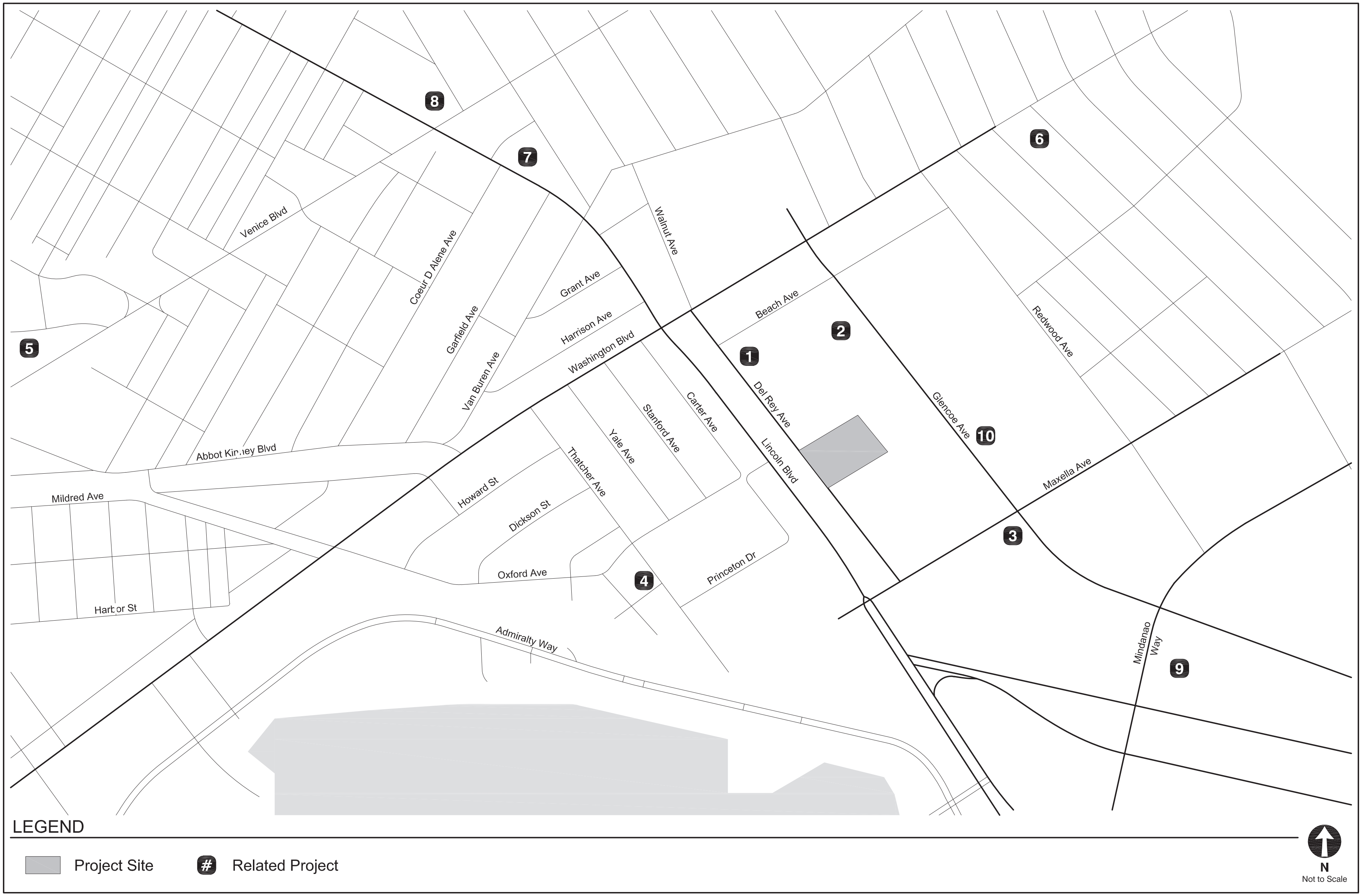
PROJECT TRIP DISTRIBUTION

FIGURE 4



NET PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
5



LOCATIONS OF RELATED PROJECTS

FIGURE 6

TABLE 3
RELATED PROJECTS

ID	Name	Address	Description	Trip Generation [a]						
				Daily Trips	Morning Peak Hour Trips			Afternoon Peak Hour Trips		
					In	Out	Total	In	Out	Total
1	Mixed-Use	4040 Del Rey Ave	168 apartment units, 100,000 mini-warehouse or 33,000 office	1,839	-50	139	88	149	-28	121
2	Mixed-Use	4065 Glencoe Ave	35,206 sf creative office, 1,500 sf retail, 49 apartment units	-191	67	38	105	2	99	101
3	Mixed-Use	13400 Maxella Ave	658 apartment units, 13,650 sf restaurant, 13,650 retail	2,079	60	236	296	115	-32	83
4	Thatched Yard Residential	3233 Thatcher Ave	98 apartment units	212	8	13	21	10	9	19
5	New 3-Story Manufacturing & Retail	595 E Venice Blvd	25,150 sf manufacturing, 5,028 sf retail	556	50	6	56	15	70	85
6	COU Warehouse to Office	4721 S Alla Rd	31,977 sf office	267	38	5	43	9	48	57
7	Mixed-Use: Residential & Commercial	2454 S Lincoln Blvd	77 apartment units, 4,040 sf restaurant, 1,905 sf retail	527	15	27	42	40	14	54
8	Apartments	1015 E Venice Blvd	56 apartment units	343	6	21	27	24	13	37
9	Change of Use: Office to Medical Office	13160 W Mindanao Way	40,000 sf medical office within exisitng building	1,003	46	18	64	26	18	44
10	Office & Retail	4204 S Glencoe Ave	121,822 sf office, 1,500 sf retail	816	65	14	79	24	131	155

Notes

[a] Source: Related project information based on available information provided by LADOT and Department of City Planning on June 14th 2022, and recent studies in the area.

TABLE 4
LA TERRA MARINA DEL REY
FREEWAY OFF-RAMP SAFETY SCREENING ANALYSIS

Freeway Off-Ramp	Peak Hour	Project Traffic	Meets Screening Criteria? [a]
SR 90			
Westbound off-ramp to Cahuenga Boulevard / Highland Avenue	AM PM	-1 4	NO NO

Notes:

[a] Based on *Interim Guidance for Freeway Safety Analysis* (LADOT, 2020), a transportation assessment for a development project must include analysis of any freeway off-ramp where a project adds 25 or more peak hour trips.

TABLE 5
TRAFFIC VOLUME WORKSHEET
ADJUSTMENT TO PRE-PANDEMIC CONDITIONS

Morning Peak Hour			1	2	3	4	5	6	7	8	9	10	11	12	
N/S Street	**E/W Street**	**Count Year**	**SBR**	**SBT**	**SBL**	**WBR**	**WBT**	**WBL**	**NBR**	**NBT**	**NBL**	**EBR**	**EBT**	**EBL**	**Total**
Lincoln Boulevard	Washington Boulevard	2022	122	930	231	173	533	104	136	1142	623	396	650	66	5106
		2019	67	1203	217	148	702	148	124	1222	760	415	701	56	5763
											Count Ratio Comparison 2019 to 2022:				1.129
Glencoe Avenue	Washington Boulevard	2022	39	57	91	251	582	231	397	111	229	133	790	23	2934
		2017	29	47	94	230	655	294	401	104	277	164	910	20	3225
											Count Ratio Comparison 2017 to 2022:				1.099
Lincoln Boulevard	Maxella Avenue	2022	49	1257	98	121	31	139	192	1778	75	161	70	61	4032
		2019	52	1744	111	141	35	176	244	2078	102	154	92	111	5040
											Count Ratio Comparison 2019 to 2022:				1.25
Glencoe Avenue	Maxella Avenue	2022	52	344	19	46	73	60	49	588	93	103	82	75	1584
		2019	78	421	33	81	93	73	64	471	109	138	112	114	1787
											Count Ratio Comparison 2019 to 2022:				1.128
											Average Count Ratio				1.152
											Morning Peak Hour Adjustment Factor:				**1.15**
Afternoon Peak Hour			**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
N/S Street	**E/W Street**	**Count Year**	**SBR**	**SBT**	**SBL**	**WBR**	**WBT**	**WBL**	**NBR**	**NBT**	**NBL**	**EBR**	**EBT**	**EBL**	**Total**
Lincoln Boulevard	Washington Boulevard	2022	77	1301	141	245	706	235	187	1012	383	540	645	84	5556
		2019	52	1378	151	238	681	311	179	1242	479	467	645	69	5892
											Count Ratio Comparison 2019 to 2022:				1.06
Glencoe Avenue	Washington Boulevard	2022	28	108	220	344	885	389	261	93	211	243	754	22	3558
		2017	72	167	505	337	1174	503	357	187	189	323	1121	48	4983
											Count Ratio Comparison 2017 to 2022:				1.401
Lincoln Boulevard	Maxella Avenue	2022	80	1928	69	176	106	345	246	1400	141	106	64	69	4730
		2019	111	2093	89	157	100	272	357	1702	185	109	94	89	5358
											Count Ratio Comparison 2019 to 2022:				1.133
Glencoe Avenue	Maxella Avenue	2022	143	626	42	58	189	75	52	432	108	156	98	118	2097
		2019	118	715	50	123	201	106	54	377	72	217	144	154	2331
											Count Ratio Comparison 2019 to 2022:				1.112
											Average Count Ratio				1.177
											Afternoon Peak Hour Adjustment Factor:				**1.18**
Total Traffic Count Adjustment Factor: 1.16															

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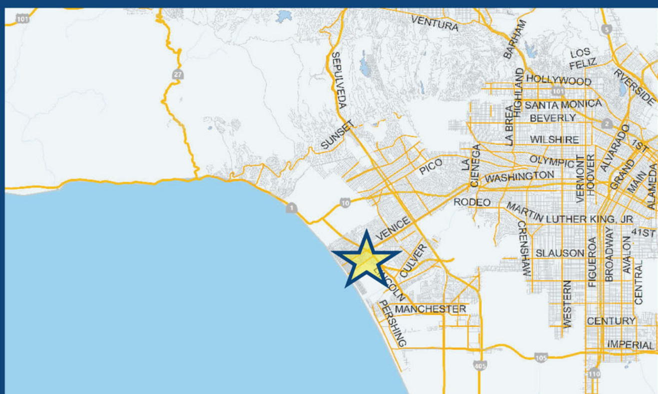
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: La Terra Marina Del Rey

Scenario: WWW

Address: 4112 S DEL REY AVE, 90292



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Industrial | Manufacturing	11.076	ksf
Office | General Office	20.789	ksf
Industrial | Manufacturing	11.076	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Multi-Family	210	DU
Housing | Multi-Family	210	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
238 Daily Vehicle Trips	1,037 Daily Vehicle Trips
2,194 Daily VMT	7,107 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	799 Net Daily Trips
The net increase in daily VMT ≤ 0	4,913 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

8/22/2022

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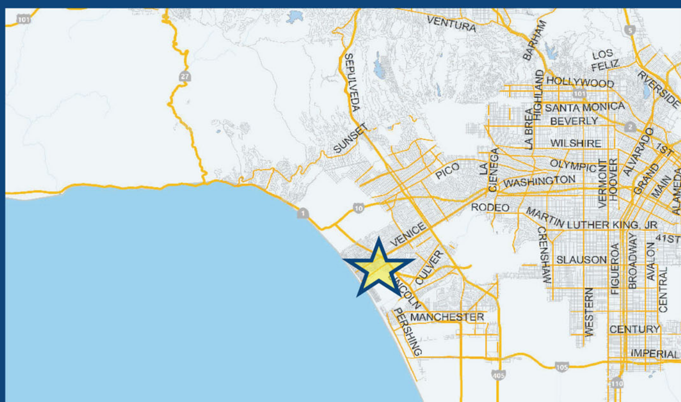
Project Information

Project: La Terra Marina Del Rey

Scenario:

Address: 4112 S DEL REY AVE, 90292



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	210	DU

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

A Parking

Reduce Parking Supply — ☑ Proposed Prj ☐ Mitigation
- 348 city code parking provision for the project site
- 282 actual parking provision for the project site

Unbundle Parking — ☐ Proposed Prj ☐ Mitigation
- 175 monthly parking cost (dollar) for the project site

Parking Cash-Out — ☐ Proposed Prj ☐ Mitigation
- 50 percent of employees eligible

Price Workplace Parking — ☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- 100 percent of employees subject to priced parking

Residential Area Parking Permits — ☐ Proposed Prj ☐ Mitigation
- 200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
932 Daily Vehicle Trips	**932** Daily Vehicle Trips
6,393 Daily VMT	**6,393** Daily VMT
6.9 Household VMT per Capita	**6.9** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 7.4 15% Below APC	**Household: No** Threshold = 7.4 15% Below APC
Work: N/A Threshold = 11.1 15% Below APC	**Work: N/A** Threshold = 11.1 15% Below APC

Measuring the Miles

8/22/2022

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	210	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	*0.000*	*ksf*
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

Analysis Results

Total Employees: 0
Total Population: 473

Proposed Project		*With Mitigation*	
932	**Daily Vehicle Trips**	**932**	**Daily Vehicle Trips**
6,393	**Daily VMT**	**6,393**	**Daily VMT**
6.9	**Household VMT per Capita**	**6.9**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: West Los Angeles

Impact Threshold: 15% Below APC Average
Household = 7.4
Work = 11.1

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 7.4	No	Household > 7.4	No
Work > 11.1	N/A	Work > 11.1	N/A

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	348	348
		Actual parking provision (spaces)	282	282
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: August 22, 2022
Project Name: La Terra Marina Del Rey
Project Scenario:
Project Address: 4112 S DEL REY AVE, 90292

Version 1.3

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
MAX. TDM EFFECT	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%

= Minimum (X%, 1-[(1-A)*(1-B)...])
where X%=

PLACE TYPE MAX:	urban	75%
	compact infill	40%
	suburban center	20%
	suburban	15%

Note: (1-[(1-A)*(1-B)...]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: August 22, 2022
Project Name: La Terra Marina Del Rey
Project Scenario:
Project Address: 4112 S DEL REY AVE, 90292

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	188	-10.1%	169	8.3	1,560	1,403
Home Based Other Production	521	-25.7%	387	5.7	2,970	2,206
Non-Home Based Other Production	243	-2.1%	238	7.1	1,725	1,690
Home-Based Work Attraction	0	0.0%	0	11.2	0	0
Home-Based Other Attraction	248	-25.0%	186	7.3	1,810	1,358
Non-Home Based Other Attraction	59	-3.4%	57	7.9	466	450

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-10.0%	152	1,262	-10.0%	152	1,262
Home Based Other Production	-10.0%	348	1,984	-10.0%	348	1,984
Non-Home Based Other Production	-10.0%	214	1,520	-10.0%	214	1,520
Home-Based Work Attraction	-10.0%	0	0	-10.0%	0	0
Home-Based Other Attraction	-10.0%	167	1,222	-10.0%	167	1,222
Non-Home Based Other Attraction	-10.0%	51	405	-10.0%	51	405

MXD VMT Methodology Per Capita & Per Employee

Total Population: 473
Total Employees: 0
APC: West Los Angeles

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**3,246**	**3,246**
Total Home Based Work Attraction VMT	**0**	**0**
Total Home Based VMT Per Capita	**6.9**	**6.9**
Total Work Based VMT Per Employee	**N/A**	**N/A**

Appendix B

High Quality Transit Corridor Assessment

Gibson transportation consulting, inc.

TECHNICAL MEMORANDUM

TO: Kimberly Comacho, ESA

FROM: Jonathan Chambers, P.E.

DATE: January 4, 2023

RE: Transit Assessment for the
4112 Del Rey Housing Project
Los Angeles, California

Ref: J2005

The 4112 Del Rey Housing Project (Project) is a proposed 210-unit apartment building to be located at 4112 Del Rey Avenue in the Marina del Rey community of Los Angeles. A Sustainable Communities Environmental Assessment (SCEA) is being prepared for the Project. In order to qualify for environmental clearance through a SCEA, a development must be located within one half mile of a High-Quality Transit Corridor (HQTC).

The Southern California Association of Governments (SCAG) defines the methodology for identifying a HQTC in the Transit Technical Report from Connect SoCal, SCAG's 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy. A HQTC is defined as a single corridor with bus service with at least 15-minute average frequency in at least one direction during the commuter peak periods (i.e., weekdays between 6 AM and 9 AM and between 3 PM and 7 PM). The average frequency is calculated based on the total number of stops at a qualifying stop (i.e., a stop identified in the published bus schedule) in a single direction during the entirety of the commuter peak periods (i.e., 3 morning hours and four evening hours combined). Corridors with overlapping bus lines (i.e., a local and rapid bus serving the same route) may use the combined schedules from the overlapping lines.

Lincoln Boulevard qualifies as a HQTC and the stop at Washington Boulevard is within one half mile of the Project Site. It is served by Santa Monica Big Blue Bus (BBB) Local Route 3 which travels on Lincoln Boulevard between downtown Santa Monica and the Aviation Station of the Metro C Line light rail. BBB Local 3 travels in the northbound direction 12 times during the morning peak period (between 6 AM and 9 AM) and 16 times during the evening peak period (between 3 PM and 7 PM) for a total of 28 trips over 7 hours, giving it an average frequency of 15.0 minutes and meeting the HQTC criteria. The current schedule is attached.

It should be noted that BBB Rapid Route 3 travels the same route as an overlapping line and also stops at the intersection of Lincoln Boulevard and Washington Boulevard. With the additional stops from that line, bus frequency on Lincoln Boulevard would be even higher.

Therefore, the Project is within one half mile of a HQTC and qualifies for a SCEA.

555 W. 5th Street, Suite 3375 Los Angeles, CA 90013 p. 213.683.0088 f. 213.683.0033

Attachment

Santa Monica Big Blue Bus Local Route 3 Schedule

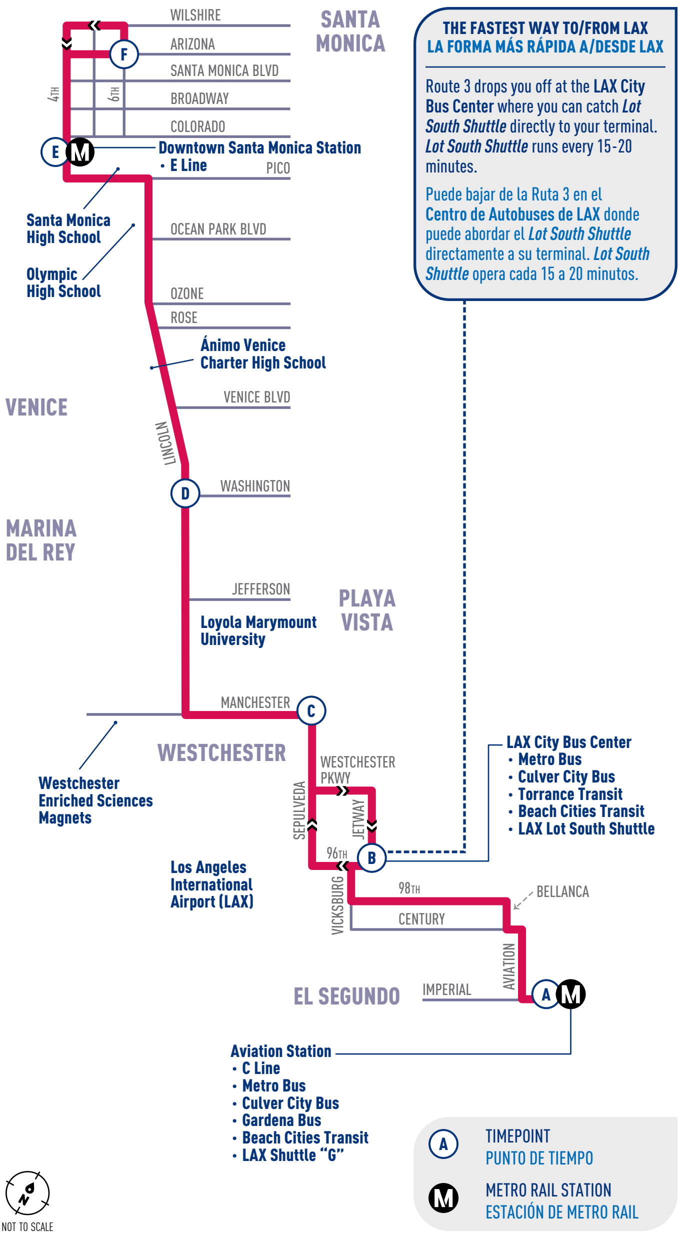
LINCOLN BLVD

3

THE FASTEST WAY TO/FROM LAX
LA FORMA MÁS RÁPIDA A/DESDE LAX

Route 3 drops you off at the **LAX City Bus Center** where you can catch ***Lot South Shuttle*** directly to your terminal. ***Lot South Shuttle*** runs every 15-20 minutes.

Puede bajar de la Ruta 3 en el **Centro de Autobuses de LAX** donde puede abordar el ***Lot South Shuttle*** directamente a su terminal. ***Lot South Shuttle*** opera cada 15 a 20 minutos.



EFFECTIVE DATE: AUGUST 14, 2022

WEEKDAY | DURANTE LA SEMANA

AVIATION STATION C LINE TO DOWNTOWN SANTA MONICA

AVIATION STATION (BAY 1) A	LAX CITY BUS CENTER (BAY 1) B	MANCHESTER & SEPULVEDA C	LINCOLN & WASHINGTON D	ARIZONA & 5TH F
4:54	5:02	5:04	5:13	5:26
5:09	5:17	5:19	5:28	5:41
5:24	5:32	5:36	5:46	6:00
5:39	5:47	5:51	6:01	6:15
5:54	6:02	6:06	6:17	6:31
6:09	6:17	6:21	6:32	6:46
6:24	6:33	6:37	6:49	7:08
6:39	6:48	6:52	7:04	7:23
6:54	7:03	7:07	7:20	7:39
7:08	7:17	7:22	7:37	8:00
7:22	7:31	7:36	7:52	8:15
7:38	7:47	7:52	8:08	8:31
7:52	8:01	8:06	8:22	8:45
8:08	8:17	8:22	8:38	9:01
8:23	8:32	8:37	8:53	9:16
8:38	8:47	8:52	9:07	9:30
8:53	9:02	9:07	9:22	9:45
9:08	9:17	9:23	9:37	10:00
9:23	9:32	9:38	9:52	10:15
9:38	9:47	9:53	10:07	10:30
9:52	10:01	10:07	10:21	10:44
THEN SERVICE EVERY 12 MINUTES UNTIL:				
1:52	**2:01**	**2:07**	**2:21**	**2:44**
2:05	**2:14**	**2:20**	**2:34**	**2:57**
2:20	**2:29**	**2:35**	**2:49**	**3:12**
2:35	**2:44**	**2:50**	**3:04**	**3:27**
THEN SERVICE EVERY 15 MINUTES UNTIL:				
8:05	**8:14**	**8:19**	**8:32**	**8:48**
8:25	**8:34**	**8:39**	**8:52**	**9:08**
8:45	**8:54**	**8:59**	**9:12**	**9:28**
9:05	**9:14**	**9:19**	**9:32**	**9:48**
9:25	**9:34**	**9:39**	**9:52**	**10:08**
9:45	**9:54**	**9:58**	**10:10**	**10:26**
10:05	**10:14**	**10:17**	**10:29**	**10:44**
10:25	**10:34**	**10:37**	**10:49**	**11:04**
10:45	**10:54**	**10:57**	**11:09**	**11:24**

ALL PM TIMES IN BOLD

EFFECTIVE DATE: AUGUST 14, 2022

WEEKDAY | DURANTE LA SEMANA

DOWNTOWN SANTA MONICA TO AVIATION STATION C LINE

ARIZONA & 5TH (F)	4TH & SANTA MONICA PLACE (DOWNTOWN SANTA MONICA STATION) (E)	LINCOLN & WASHINGTON (D)	MANCHESTER & SEPULVEDA (C)	LAX CITY BUS CENTER (BAY 13) (B)	AVIATION STATION (A)
4:43	4:46	4:55	5:05	5:10	5:23
5:13	5:16	5:25	5:35	5:40	5:53
5:43	5:46	5:55	6:05	6:10	6:23
6:10	6:13	6:22	6:35	6:40	6:53
6:30	6:33	6:46	6:59	7:04	7:17
6:50	6:53	7:06	7:19	7:24	7:37
7:05	7:08	7:21	7:34	7:39	7:52
7:20	7:23	7:36	7:49	7:54	8:07
7:35	7:40	7:55	8:10	8:15	8:28
7:50	7:55	8:10	8:25	8:30	8:43
8:05	8:10	8:25	8:40	8:45	8:58
8:20	8:25	8:40	8:55	9:00	9:13
8:35	8:40	8:56	9:09	9:14	9:27
8:50	8:55	9:11	9:24	9:29	9:42
9:05	9:10	9:26	9:39	9:44	9:57
9:20	9:25	9:41	9:54	9:59	10:12
9:35	9:40	9:56	10:09	10:14	10:27
9:50	9:55	10:11	10:24	10:29	10:42
10:05	10:10	10:26	10:39	10:44	10:57
10:20	10:25	10:41	10:54	10:59	11:12
10:34	10:39	10:55	11:08	11:13	11:26
10:48	10:53	11:09	11:22	11:27	11:40
11:00	11:06	11:22	11:36	11:41	11:54
THEN SERVICE EVERY 12 MINUTES UNTIL:					
2:00	**2:06**	**2:25**	**2:40**	**2:45**	**2:58**
2:15	**2:21**	**2:40**	**2:55**	**3:00**	**3:13**
2:30	**2:36**	**3:00**	**3:16**	**3:21**	**3:34**
2:45	**2:51**	**3:15**	**3:31**	**3:36**	**3:49**
3:00	**3:06**	**3:33**	**3:49**	**3:54**	**4:07**
THEN SERVICE EVERY 15 MINUTES UNTIL:					
5:14	**5:20**	**5:47**	**6:03**	**6:08**	**6:21**
5:29	**5:35**	**5:58**	**6:12**	**6:17**	**6:30**
5:44	**5:50**	**6:13**	**6:27**	**6:32**	**6:45**
6:00	**6:04**	**6:23**	**6:37**	**6:42**	**6:55**
6:15	**6:19**	**6:38**	**6:52**	**6:57**	**7:10**
6:30	**6:34**	**6:53**	**7:07**	**7:12**	**7:25**
6:45	**6:49**	**7:08**	**7:22**	**7:27**	**7:40**
7:00	**7:04**	**7:23**	**7:37**	**7:42**	**7:55**
7:15	**7:19**	**7:36**	**7:50**	**7:55**	**8:08**
7:30	**7:34**	**7:48**	**8:02**	**8:07**	**8:20**
7:45	**7:49**	**8:03**	**8:17**	**8:22**	**8:35**
8:00	**8:04**	**8:17**	**8:30**	**8:35**	**8:48**
THEN SERVICE EVERY 20 MINUTES OR LESS UNTIL:					
9:40	**9:44**	**9:55**	**10:06**	**10:11**	**10:24**
10:00	**10:04**	**10:15**	**10:26**	**10:31**	**10:44**
10:20	**10:24**	**10:35**	**10:46**	**10:51**	**11:04**
10:40	**10:44**	**10:55**	**11:06**	**11:11**	**11:24**
11:00	**11:04**	**11:15**	**11:26**	**11:31**	**11:44**

ALL PM TIMES IN BOLD

EFFECTIVE DATE: AUGUST 14, 2022

WEEKEND | LOS FINES DE SEMANA

AVIATION STATION C LINE TO DOWNTOWN SANTA MONICA

A AVIATION STATION (BAY 1)	B LAX CITY BUS CENTER (BAY 1)	C MANCHESTER & SEPULVEDA	D LINCOLN & WASHINGTON	F ARIZONA & 5TH
5:03	5:11	5:14	5:24	5:39
5:33	5:41	5:44	5:54	6:09
6:03	6:11	6:15	6:26	6:43
6:33	6:41	6:46	6:58	7:17
7:03	7:12	7:17	7:30	7:51
7:18	7:27	7:32	7:45	8:06
7:33	7:42	7:47	8:00	8:23
7:48	7:57	8:02	8:15	8:38
8:03	8:12	8:17	8:30	8:53
8:18	8:27	8:32	8:45	9:08
8:33	8:43	8:49	9:03	9:27
8:48	8:58	9:04	9:18	9:42
9:03	9:13	9:19	9:33	9:57
9:18	9:28	9:34	9:48	10:12
9:33	9:43	9:49	10:03	10:27
9:48	9:58	10:04	10:18	10:42
10:03	10:13	10:19	10:33	10:57
10:18	10:28	10:34	10:48	11:12
10:33	10:43	10:49	11:04	11:30
10:48	10:58	11:04	11:19	11:45
THEN SERVICE EVERY 15 MINUTES UNTIL:				
4:48	**4:59**	**5:05**	**5:20**	**5:46**
5:03	**5:14**	**5:20**	**5:35**	**6:01**
5:18	**5:29**	**5:35**	**5:50**	**6:16**
5:35	**5:45**	**5:51**	**6:06**	**6:30**
5:50	**6:00**	**6:06**	**6:21**	**6:45**
6:05	**6:15**	**6:21**	**6:36**	**7:00**
6:20	**6:30**	**6:36**	**6:51**	**7:15**
6:35	**6:45**	**6:51**	**7:05**	**7:28**
6:50	**7:00**	**7:06**	**7:20**	**7:43**
7:05	**7:15**	**7:21**	**7:35**	**7:58**
7:20	**7:30**	**7:36**	**7:50**	**8:13**
7:35	**7:45**	**7:50**	**8:04**	**8:24**
7:50	**8:00**	**8:05**	**8:19**	**8:39**
8:05	**8:14**	**8:19**	**8:32**	**8:51**
8:25	**8:34**	**8:39**	**8:52**	**9:11**
8:45	**8:54**	**8:59**	**9:12**	**9:31**
9:05	**9:14**	**9:19**	**9:32**	**9:51**
9:25	**9:34**	**9:39**	**9:52**	**10:11**
9:45	**9:54**	**9:59**	**10:11**	**10:29**
10:05	**10:14**	**10:19**	**10:31**	**10:47**
10:25	**10:34**	**10:39**	**10:51**	**11:07**
10:45	**10:54**	**10:59**	**11:11**	**11:27**

TRIP OPERATES ON SATURDAY ONLY.
VIAJE OPERA SOLO EN SÁBADO.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: AUGUST 14, 2022

DOWNTOWN SANTA MONICA TO AVIATION STATION C LINE

(F) ARIZONA & 5TH	(E) 4TH & SANTA MONICA PLACE (DOWNTOWN SANTA MONICA STATION)	(D) LINCOLN & WASHINGTON	(C) MANCHESTER & SEPULVEDA	(B) LAX CITY BUS CENTER (BAY 1)	(A) AVIATION STATION
5:15	5:19	5:28	5:39	5:44	5:53
5:45	5:49	5:58	6:09	6:14	6:23
6:15	6:19	6:28	6:39	6:44	6:53
6:45	6:49	7:01	7:13	7:19	7:28
7:00	7:04	7:16	7:28	7:34	7:43
7:15	7:19	7:31	7:43	7:49	7:58
7:30	7:35	7:48	8:01	8:07	8:17
7:45	7:50	8:03	8:16	8:22	8:32
8:01	8:06	8:22	8:35	8:41	8:51
8:16	8:21	8:37	8:50	8:56	9:06
8:31	8:36	8:52	9:05	9:11	9:21
8:46	8:51	9:07	9:20	9:26	9:36
9:00	9:06	9:23	9:37	9:43	9:53
9:15	9:21	9:38	9:52	9:58	10:08
9:27	9:33	9:50	10:04	10:10	10:20
9:42	9:49	10:08	10:23	10:29	10:40
9:57	10:04	10:23	10:38	10:44	10:55
10:12	10:19	10:38	10:53	10:59	11:10
10:27	10:34	10:53	11:08	11:14	11:25
10:42	10:49	11:10	11:26	11:33	11:44
10:57	11:04	11:25	11:41	11:48	11:59
11:12	11:19	11:40	11:56	**12:03**	**12:14**
11:27	11:34	11:55	**12:11**	**12:18**	**12:29**
11:42	11:50	**12:12**	**12:28**	**12:35**	**12:47**
11:57	**12:05**	**12:27**	**12:43**	**12:50**	**1:02**
THEN SERVICE EVERY 15 MINUTES UNTIL:					
7:12	**7:20**	**7:42**	**7:58**	**8:05**	**8:17**
7:27	**7:35**	**7:57**	**8:13**	**8:20**	**8:32**
7:42	**7:50**	**8:10**	**8:25**	**8:32**	**8:44**
8:00	**8:07**	**8:24**	**8:37**	**8:44**	**8:55**
8:20	**8:27**	**8:44**	**8:57**	**9:04**	**9:15**
8:40	**8:47**	**9:04**	**9:17**	**9:24**	**9:35**
9:00	**9:07**	**9:24**	**9:37**	**9:44**	**9:55**
9:20	**9:26**	**9:42**	**9:54**	**10:00**	**10:11**
9:40	**9:46**	**10:02**	**10:14**	**10:20**	**10:31**
10:00	**10:06**	**10:22**	**10:34**	**10:40**	**10:51**
10:20	**10:26**	**10:41**	**10:52**	**10:58**	**11:08**
10:40	**10:46**	**11:01**	**11:12**	**11:18**	**11:28**
11:00	**11:06**	**11:21**	**11:32**	**11:38**	**11:48**

TRIP OPERATES ON SATURDAY ONLY.
VIAJE OPERA SOLO EN SÁBADO.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: AUGUST 14, 2022

Appendix C

Traffic Volume Data

Turning Movement Count Report AM

Location ID: 1
North/South: Lincoln Blvd
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	14	105	25	43	77	18	30	316	119	59	90	21	917
7:15	19	174	29	35	107	18	27	375	151	75	108	15	1133
7:30	25	157	45	33	116	19	23	342	154	81	136	12	1143
7:45	27	216	51	38	126	33	43	328	153	93	139	17	1264
8:00	37	219	59	37	124	22	30	298	176	102	171	15	1290
8:15	38	264	64	46	146	19	31	253	145	105	158	15	1284
8:30	20	231	57	52	137	30	32	263	149	96	182	19	1268
8:45	35	245	59	40	128	31	39	264	146	97	157	17	1258
9:00	23	176	53	41	115	29	30	281	134	103	132	18	1135
9:15	30	201	67	59	109	33	36	242	117	81	150	32	1157
9:30	24	179	49	51	100	26	36	240	142	85	139	26	1097
9:45	38	190	49	51	117	38	41	212	149	86	123	30	1124

Total Volume:	330	2357	607	526	1402	316	398	3414	1735	1063	1685	237	14070
Approach %	10%	72%	18%	23%	62%	14%	7%	62%	31%	36%	56%	8%	

Peak Hr Begin:	7:45												
PHV	122	930	231	173	533	104	136	1142	623	396	650	66	5106
PHF		0.876			0.925			0.907			0.936		0.990

Turning Movement Count Report PM

Location ID: 1
North/South: Lincoln Blvd
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	15	249	56	55	146	66	60	258	90	137	161	25	1318
15:15	13	301	69	66	132	55	50	265	91	114	175	23	1354
15:30	17	312	34	51	143	54	54	285	104	120	165	16	1355
15:45	11	296	40	64	159	60	44	256	96	140	171	24	1361
16:00	18	325	36	66	145	67	65	250	95	124	169	20	1380
16:15	18	327	36	55	169	61	51	266	99	135	171	26	1414
16:30	23	318	30	53	144	58	39	232	98	120	178	21	1314
16:45	20	317	34	62	190	68	47	248	86	133	161	28	1394
17:00	16	328	30	65	167	56	47	236	104	138	172	11	1370
17:15	24	330	44	62	181	51	41	265	97	134	155	30	1414
17:30	17	326	33	56	168	60	52	263	96	135	157	15	1378
17:45	19	298	35	55	169	64	49	254	98	125	172	25	1363

Total Volume:	211	3727	477	710	1913	720	599	3078	1154	1555	2007	264	16415
Approach %	5%	84%	11%	21%	57%	22%	12%	64%	24%	41%	52%	7%	

Peak Hr Begin:	16:45												
PHV	77	1301	141	245	706	235	187	1012	383	540	645	84	5556
PHF	0.954			0.927			0.962			0.985			0.982

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	3	0	3	1	2	0	3	0
7:15	4	0	0	0	0	0	2	0
7:30	3	1	0	0	0	0	1	0
7:45	14	0	5	2	2	0	7	1
8:00	4	0	3	0	5	0	3	1
8:15	5	1	3	1	5	1	6	0
8:30	3	0	3	4	1	0	3	1
8:45	3	1	2	2	6	0	3	1
9:00	10	2	10	2	6	1	6	2
9:15	1	0	2	0	6	0	2	0
9:30	2	0	6	1	10	3	4	0
9:45	7	0	7	0	3	0	2	1

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	8	0	1	1	11	2	4	3
15:15	1	0	8	5	18	8	6	2
15:30	5	0	15	0	22	2	11	0
15:45	9	1	11	2	17	1	14	0
16:00	5	0	10	1	16	0	5	0
16:15	12	0	17	3	22	2	4	0
16:30	7	0	6	3	12	1	9	0
16:45	3	1	10	1	17	1	14	0
17:00	4	0	13	1	10	0	9	2
17:15	9	2	7	3	19	3	8	2
17:30	9	0	6	2	14	1	11	0
17:45	7	0	3	0	15	0	12	0

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

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

STREET:
North / Sounth: Lincoln

East/West: Washington

Day: Tuesday, May 7, 2019 Weather: Sunny

Hours:

School Day: Yes District I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	515	365	305	255
BIKES	65	77	120	102
BUSES	57	56	44	35

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	601	7:00:00 AM	403	8:15:00 AM	390	8:15:00 AM	274	8:45:00 AM
PM PK 15 MIN	538	5:30:00 PM	441	4:30:00 PM	310	5:15:00 PM	316	5:45:00 PM
AM PK HOUR	2221	7:00:00 AM	1541	7:45:00 AM	1440	8:00:00 AM	998	8:00:00 AM
PM PK HOUR	1913	4:45:00 PM	1701	4:15:00 PM	1192	4:45:00 PM	1230	5:00:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	696	1437	88	2221
8-9	760	1222	124	2106
9-10	716	1229	184	2129
3-4	411	1032	206	1649
4-5	447	1070	188	1705
5-6	479	1242	179	1900
TOTAL	3509	7232	969	11710

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	176	921	75	1172
8-9	217	1203	67	1487
9-10	232	1102	98	1432
3-4	172	1329	59	1560
4-5	162	1451	56	1669
5-6	151	1378	52	1581
TOTAL	1110	7384	407	8901

	TOTAL	XING S/L		XING N/L	
Hours	N-S	Ped	Sch	Ped	Sch
7-8	3393	26	7	22	4
8-9	3593	44	7	16	0
9-10	3561	43	11	45	7
3-4	3209	66	20	57	7
4-5	3374	66	20	43	7
5-6	3481	44	19	47	2
TOTAL	20611	289	84	230	27

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	56	701	415	1172
8-9	58	800	582	1440
9-10	88	653	513	1254
3-4	84	605	481	1170
4-5	70	565	455	1090
5-6	69	645	467	1181
TOTAL	425	3969	2913	7307

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	115	558	149	822
8-9	148	702	148	998
9-10	147	549	182	878
3-4	296	573	242	1111
4-5	301	604	244	1149
5-6	311	681	238	1230
TOTAL	1318	3667	1203	6188

	TOTAL	XING W/L		XING E/L	
Hours	E-W	Ped	Sch	Ped	Sch
7-8	1994	23	4	37	5
8-9	2438	27	4	31	9
9-10	2132	40	8	54	7
3-4	2281	50	8	64	25
4-5	2239	45	8	77	6
5-6	2411	46	2	78	3
TOTAL	13495	231	34	341	55

Turning Movement Count Report AM

Location ID: 2
North/South: Del Rey Ave
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	4	0	0	2	137	9	13	0	0	10	136	0	311
7:15	2	0	0	9	151	5	15	0	2	3	168	1	356
7:30	5	0	0	17	167	3	14	0	0	4	187	0	397
7:45	10	0	0	22	188	8	24	0	0	10	237	3	502
8:00	7	0	0	32	172	6	25	0	0	19	248	3	512
8:15	4	0	0	11	201	14	20	0	0	19	217	1	487
8:30	3	0	0	9	223	11	22	0	0	26	255	1	550
8:45	4	0	0	7	187	7	25	0	0	16	225	1	472
9:00	3	0	0	9	189	15	18	0	2	24	213	0	473
9:15	5	0	0	7	198	19	17	0	1	28	221	1	497
9:30	4	0	0	3	161	4	20	0	3	19	209	0	423
9:45	2	0	0	3	210	15	14	0	1	20	197	0	462

Total Volume:	53	0	0	131	2184	116	227	0	9	198	2513	11	5442
Approach %	100%	0%	0%	5%	90%	5%	96%	0%	4%	7%	92%	0%	

Peak Hr Begin:	7:45												
PHV	24	0	0	74	784	39	91	0	0	74	957	8	2051
PHF		0.600			0.923			0.910			0.921		0.932

Turning Movement Count Report PM

Location ID: 2
North/South: Del Rey Ave
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	9	0	0	8	242	17	16	0	2	27	269	0	590
15:15	10	0	0	10	241	31	19	0	1	36	251	0	599
15:30	12	0	0	11	246	26	28	0	1	37	218	0	579
15:45	15	0	0	10	271	32	20	0	0	32	232	0	612
16:00	23	0	0	8	251	28	24	0	3	33	238	0	608
16:15	21	0	0	2	274	25	21	0	1	27	227	1	599
16:30	25	0	0	9	226	19	23	0	0	27	229	0	558
16:45	29	0	0	14	296	35	21	0	2	42	200	0	639
17:00	16	0	0	6	276	26	17	0	0	24	228	0	593
17:15	9	0	0	3	274	19	30	0	0	39	205	2	581
17:30	22	0	0	7	265	40	31	0	1	25	222	0	613
17:45	17	0	0	5	274	27	22	0	0	35	236	0	616

Total Volume:	208	0	0	93	3136	325	272	0	11	384	2755	3	7187
Approach %	100%	0%	0%	3%	88%	9%	96%	0%	4%	12%	88%	0%	

Peak Hr Begin:	16:45												
PHV	76	0	0	30	1111	120	99	0	3	130	855	2	2426
PHF	0.655			0.914			0.797			0.979			0.949

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	1	0	0	0	1	2	0	0
7:15	2	0	0	0	4	0	0	0
7:30	4	2	0	0	3	1	0	0
7:45	9	0	0	0	6	1	1	0
8:00	4	0	0	1	7	0	0	0
8:15	5	2	0	0	2	1	0	0
8:30	3	0	0	0	6	0	0	0
8:45	2	2	0	0	8	0	0	0
9:00	6	0	0	0	7	1	0	0
9:15	3	2	0	0	3	0	0	0
9:30	7	0	0	0	5	0	1	0
9:45	5	0	0	0	7	0	0	0

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	5	0	0	0	4	4	0	0
15:15	4	2	1	0	6	1	0	0
15:30	5	1	0	0	6	0	0	0
15:45	12	1	0	0	2	2	0	0
16:00	8	1	0	0	9	0	0	0
16:15	16	2	0	0	9	1	0	0
16:30	13	1	0	0	4	2	0	0
16:45	5	1	0	0	12	2	0	0
17:00	11	1	0	0	5	4	0	0
17:15	6	0	0	0	4	1	1	0
17:30	3	1	0	0	15	1	1	1
17:45	9	0	0	0	11	0	0	0

Turning Movement Count Report AM

Location ID: 3
North/South: Glencoe Ave
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	13	9	26	33	71	27	83	17	41	14	128	1	463
7:15	9	10	26	31	92	21	79	15	49	14	140	2	488
7:30	15	11	15	27	104	38	97	17	58	27	178	3	590
7:45	8	10	23	38	127	37	121	10	79	27	201	5	686
8:00	9	13	30	45	141	57	126	19	59	32	202	5	738
8:15	7	15	30	60	145	62	98	21	62	36	197	4	737
8:30	13	16	20	69	157	57	79	21	51	33	200	5	721
8:45	10	13	11	77	139	55	94	50	57	32	191	9	738
9:00	7	9	20	114	157	48	60	44	62	47	138	6	712
9:15	13	21	33	90	121	34	84	34	49	32	186	7	704
9:30	23	15	45	91	114	50	64	41	39	39	152	7	680
9:45	8	17	53	83	138	50	78	38	39	28	180	9	721

Total Volume:	135	159	332	758	1506	536	1063	327	645	361	2093	63	7978
Approach %	22%	25%	53%	27%	54%	19%	52%	16%	32%	14%	83%	3%	

Peak Hr Begin:	8:00												
PHV	39	57	91	251	582	231	397	111	229	133	790	23	2934
PHF		0.899			0.940			0.903			0.990		0.994

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 3
North/South: Glencoe Ave
East/West: Washington Blvd

Date: 06/02/22
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	18	18	71	92	139	77	81	25	40	60	209	11	841
15:15	16	28	72	101	182	85	75	29	45	76	192	6	907
15:30	16	28	52	98	171	85	66	38	55	77	165	7	858
15:45	18	23	55	96	203	86	69	32	47	52	192	7	880
16:00	14	26	57	88	218	76	67	30	46	73	187	9	891
16:15	17	25	59	76	163	89	73	20	48	74	175	6	825
16:30	13	25	52	86	191	90	52	24	56	56	188	6	839
16:45	6	28	67	92	208	96	58	19	64	58	164	7	867
17:00	10	28	40	94	210	90	75	28	55	67	194	8	899
17:15	6	28	61	73	252	114	65	25	48	52	182	4	910
17:30	6	24	52	85	215	89	63	21	44	66	214	3	882
17:45	14	23	39	84	198	104	75	22	52	69	166	5	851

Total Volume:	154	304	677	1065	2350	1081	819	313	600	780	2228	79	10450
Approach %	14%	27%	60%	24%	52%	24%	47%	18%	35%	25%	72%	3%	

Peak Hr Begin:	16:45												
PHV	28	108	220	344	885	389	261	93	211	243	754	22	3558
PHF	0.881			0.921			0.894			0.900			0.977

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	2	0	2	0	0	0	0	0
7:15	1	0	1	0	0	0	0	0
7:30	1	3	3	0	0	0	0	0
7:45	7	0	4	0	7	0	1	0
8:00	1	0	3	0	2	0	0	0
8:15	3	1	2	0	3	0	0	0
8:30	4	0	5	0	5	0	0	0
8:45	1	2	3	0	4	0	0	0
9:00	3	0	3	0	5	0	0	0
9:15	3	1	8	0	9	0	0	0
9:30	4	0	4	0	2	0	0	0
9:45	1	0	7	0	4	0	0	0

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	7	2	9	0	4	1	0	0
15:15	14	3	9	0	6	1	0	0
15:30	6	1	8	1	3	0	0	0
15:45	0	0	17	0	7	0	0	0
16:00	10	1	11	0	8	0	0	0
16:15	8	2	16	0	13	0	0	0
16:30	19	0	16	0	9	0	4	0
16:45	6	2	12	1	12	0	1	0
17:00	8	1	6	1	4	0	2	0
17:15	7	2	7	0	3	0	0	0
17:30	2	2	6	0	6	0	0	0
17:45	9	0	7	1	5	0	2	0

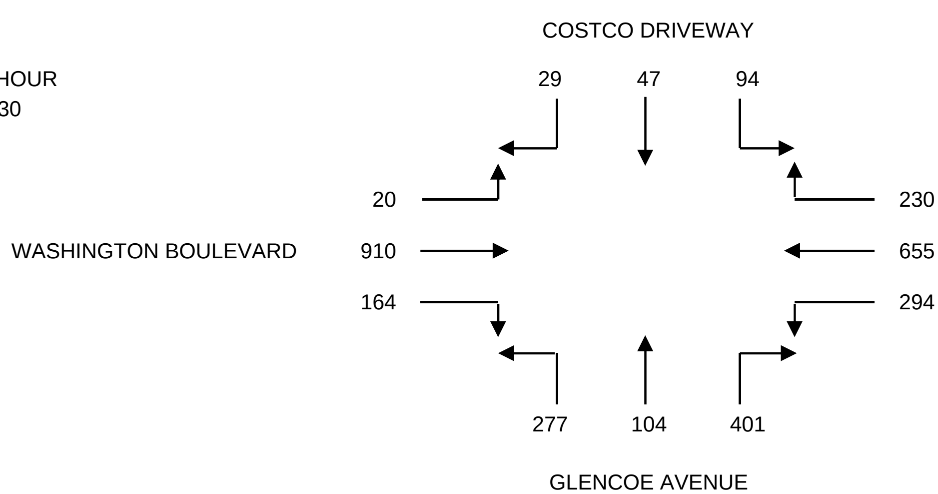
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 2454 LINCOLN BOULEVARD MIXED-USE PROJECT
DATE: TUESDAY, DECEMBER 12, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S GLENCOE AVENUE / COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	2	6	12	33	124	36	70	10	31	10	147	0
0715-0730	1	5	13	27	139	42	80	14	44	14	178	2
0730-0745	2	4	17	29	142	36	126	16	69	19	190	3
0745-0800	2	7	10	32	180	24	116	13	70	21	210	2
0800-0815	2	8	18	27	168	47	106	11	75	29	229	2
0815-0830	6	15	27	40	189	51	101	17	80	30	218	4
0830-0845	3	13	25	38	170	78	100	19	70	32	202	2
0845-0900	5	13	25	52	158	67	105	20	68	42	237	4
0900-0915	10	10	20	62	161	71	110	28	76	38	248	6
0915-0930	11	11	24	78	166	78	86	37	63	52	223	8
0930-0945	9	19	36	55	150	68	55	24	40	47	197	10
0945-1000	12	10	23	67	155	61	77	28	45	45	200	7

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	7	22	52	121	585	138	392	53	214	64	725	7	2380
0715-0815	7	24	58	115	629	149	428	54	258	83	807	9	2621
0730-0830	12	34	72	128	679	158	449	57	294	99	847	11	2840
0745-0845	13	43	80	137	707	200	423	60	295	112	859	10	2939
0800-0900	16	49	95	157	685	243	412	67	293	133	886	12	3048
0815-0915	24	51	97	192	678	267	416	84	294	142	905	16	3166
0830-0930	29	47	94	230	655	294	401	104	277	164	910	20	3225
0845-0945	35	53	105	247	635	284	356	109	247	179	905	28	3183
0900-1000	42	50	103	262	632	278	328	117	224	182	868	31	3117

A.M. PEAK HOUR
0830-0930



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
9 ALTA STREET, UNIT E
ARCADIA, CALIFORNIA 91006
PH: (626) 446-7978
TRAFSOLUTN@AOL.COM

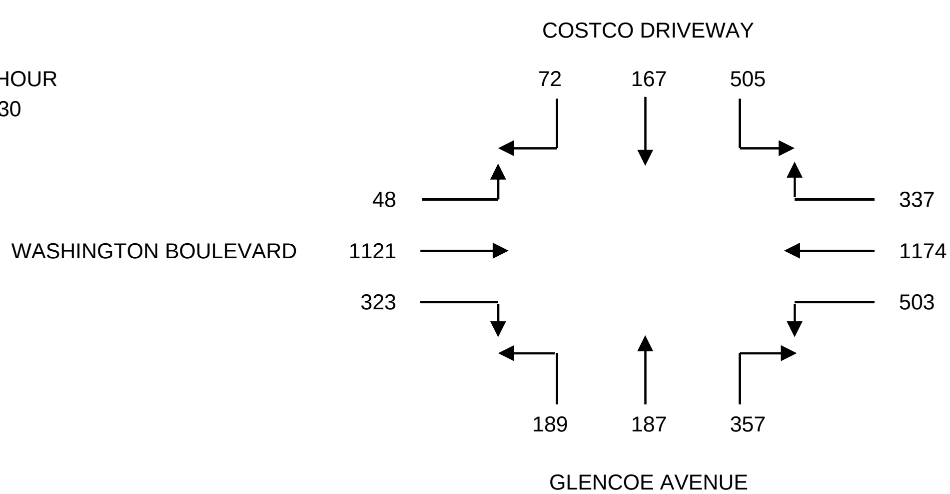
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 2454 LINCOLN BOULEVARD MIXED-USE PROJECT
DATE: TUESDAY, DECEMBER 12, 2017
PERIOD: 04:00 PM TO 07:00 PM
INTERSECTION: N/S GLENCOE AVENUE / COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0400-0415	16	26	117	96	220	100	68	29	42	77	193	12
0415-0430	22	42	125	75	250	115	49	47	33	83	257	16
0430-0445	15	33	133	84	274	134	51	32	46	70	266	17
0445-0500	20	35	145	83	290	106	62	52	39	56	274	14
0500-0515	19	39	138	90	288	130	72	40	54	70	265	12
0515-0530	18	52	130	85	271	128	78	31	32	85	283	10
0530-0545	18	41	125	91	305	133	86	39	50	77	265	9
0545-0600	16	36	133	81	288	120	95	53	32	88	275	10
0600-0615	18	50	127	80	287	134	90	55	53	83	306	15
0615-0630	20	40	120	85	294	116	86	40	54	75	275	14
0630-0645	23	47	141	77	289	127	75	45	38	63	230	14
0645-0700	15	33	133	79	261	118	78	44	44	55	244	13

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0400-0500	73	136	520	338	1034	455	230	160	160	286	990	59	4441
0415-0515	76	149	541	332	1102	485	234	171	172	279	1062	59	4662
0430-0530	72	159	546	342	1123	498	263	155	171	281	1088	53	4751
0445-0545	75	167	538	349	1154	497	298	162	175	288	1087	45	4835
0500-0600	71	168	526	347	1152	511	331	163	168	320	1088	41	4886
0515-0615	70	179	515	337	1151	515	349	178	167	333	1129	44	4967
0530-0630	72	167	505	337	1174	503	357	187	189	323	1121	48	4983
0545-0645	77	173	521	323	1158	497	346	193	177	309	1086	53	4913
0600-0700	76	170	521	321	1131	495	329	184	189	276	1055	56	4803

P.M. PEAK HOUR
0530-0630



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
9 ALTA STREET, UNIT E
ARCADIA, CALIFORNIA 91006
PH: (626) 446-7978
TRAFSOLUTN@AOL.COM

Turning Movement Count Report AM

Location ID: 4
North/South: Lincoln Blvd
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	12	172	13	14	2	23	33	459	15	19	0	12	774
7:15	7	226	11	23	2	28	31	546	15	21	10	14	934
7:30	7	262	18	21	4	21	37	531	14	33	14	12	974
7:45	8	302	15	26	6	21	45	498	14	46	21	18	1020
8:00	15	275	23	32	9	44	55	467	24	37	11	13	1005
8:15	15	369	32	25	8	40	41	404	18	44	16	16	1028
8:30	11	311	28	38	8	34	51	409	19	34	22	14	979
8:45	10	344	18	32	14	41	39	401	29	36	13	18	995
9:00	13	264	30	31	14	41	42	395	32	35	14	15	926
9:15	15	276	21	34	10	36	36	373	14	33	10	19	877
9:30	17	242	32	32	9	33	33	370	16	33	13	13	843
9:45	17	263	26	45	9	40	44	389	22	32	15	12	914

Total Volume:	147	3306	267	353	95	402	487	5242	232	403	159	176	11269
Approach %	4%	89%	7%	42%	11%	47%	8%	88%	4%	55%	22%	24%	

Peak Hr Begin:	7:45												
PHV	49	1257	98	121	31	139	192	1778	75	161	70	61	4032
PHF		0.844			0.856			0.918			0.859		0.981

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 4
North/South: Lincoln Blvd
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	14	401	42	51	21	59	53	338	29	33	18	24	1083
15:15	8	469	23	43	26	75	55	378	30	18	16	14	1155
15:30	17	445	26	36	16	67	56	368	37	31	22	14	1135
15:45	20	449	12	39	27	74	66	335	27	28	24	18	1119
16:00	16	456	27	42	22	70	49	347	44	27	17	18	1135
16:15	21	471	20	46	17	72	72	360	38	28	20	19	1184
16:30	16	495	25	44	25	61	49	347	34	28	22	17	1163
16:45	25	516	24	47	21	95	52	346	28	22	14	16	1206
17:00	14	468	13	42	32	93	61	328	31	28	10	26	1146
17:15	19	506	18	40	29	86	53	335	32	30	16	16	1180
17:30	25	472	15	44	22	86	75	362	34	24	19	16	1194
17:45	22	482	23	50	23	80	57	375	44	24	19	11	1210

Total Volume:	217	5630	268	524	281	918	698	4219	408	321	217	209	13910
Approach %	4%	92%	4%	30%	16%	53%	13%	79%	8%	43%	29%	28%	

Peak Hr Begin:	17:00												
PHV	80	1928	69	176	106	345	246	1400	141	106	64	69	4730
PHF		0.956			0.939			0.939			0.934		0.977

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	5	1	0	0	0	0	0	0
7:15	12	0	2	0	0	0	0	0
7:30	17	0	5	0	1	0	2	0
7:45	12	1	7	2	0	0	3	0
8:00	21	0	6	0	0	0	4	0
8:15	16	2	9	0	0	0	2	1
8:30	22	3	8	1	0	0	2	1
8:45	9	1	1	1	0	0	4	0
9:00	15	3	2	1	0	0	4	1
9:15	17	4	7	0	0	0	7	0
9:30	11	1	1	0	0	0	6	0
9:45	13	2	2	0	0	0	10	1

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	18	3	12	3	0	0	6	1
15:15	19	3	10	2	0	0	13	1
15:30	23	2	16	1	0	0	8	2
15:45	14	1	7	1	2	0	10	0
16:00	18	5	4	0	0	0	5	2
16:15	18	0	6	1	0	0	3	1
16:30	27	2	11	1	1	0	10	1
16:45	19	1	5	0	0	0	7	1
17:00	34	2	8	2	0	0	5	1
17:15	19	3	3	1	1	0	2	4
17:30	21	1	5	0	0	0	10	0
17:45	29	2	4	1	0	0	10	0

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

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

STREET:
North / Sounth: Lincoln

East/West: Maxella

Day: Thursday, May 9, 2019 | Weather: Sunny

Hours:

School Day: Yes | District | I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	599	492	42	80
BIKES	30	40	16	76
BUSES	77	62	1	9

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	679	7:00:00 AM	519	8:45:00 AM	102	8:45:00 AM	103	9:30:00 AM
PM PK 15 MIN	616	5:15:00 PM	650	5:15:00 PM	78	5:45:00 PM	144	4:15:00 PM
AM PK HOUR	2508	7:00:00 AM	1920	8:45:00 AM	363	8:30:00 AM	383	8:45:00 AM
PM PK HOUR	2244	5:00:00 PM	2415	4:30:00 PM	292	5:00:00 PM	544	3:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	84	2180	244	2508
8-9	102	2078	244	2424
9-10	89	2023	258	2370
3-4	115	1574	281	1970
4-5	174	1648	261	2083
5-6	185	1702	357	2244
TOTAL	749	11205	1645	13599

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	96	1330	31	1457
8-9	111	1744	52	1907
9-10	109	1670	60	1839
3-4	113	2065	75	2253
4-5	114	2143	88	2345
5-6	89	2093	111	2293
TOTAL	632	11045	417	12094

Hours	TOTAL N-S	XING S/L Ped	XING S/L Sch	XING N/L Ped	XING N/L Sch
7-8	3965	0	1	42	9
8-9	4331	0	0	41	16
9-10	4209	0	0	70	12
3-4	4223	4	0	76	21
4-5	4428	4	0	106	14
5-6	4537	2	0	134	0
TOTAL	25693	10	1	469	72

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	68	64	130	262
8-9	111	92	154	357
9-10	82	69	165	316
3-4	70	59	96	225
4-5	76	69	113	258
5-6	89	94	109	292
TOTAL	496	447	767	1710

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	131	21	107	259
8-9	176	35	141	352
9-10	187	35	158	380
3-4	269	63	170	502
4-5	277	93	173	543
5-6	272	100	157	529
TOTAL	1312	347	906	2565

Hours	TOTAL E-W	XING W/L Ped	XING W/L Sch	XING E/L Ped	XING E/L Sch
7-8	521	12	1	2	0
8-9	709	9	1	10	0
9-10	696	26	1	7	0
3-4	727	42	4	24	0
4-5	801	57	6	21	6
5-6	821	53	0	27	0
TOTAL	4275	199	13	91	6

Turning Movement Count Report AM

Location ID: 5
North/South: Del Rey Ave
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	11	0	5	10	23	0	0	0	0	0	33	12	94
7:15	15	0	5	12	34	0	0	0	0	0	40	13	119
7:30	6	0	7	16	36	0	0	0	0	0	49	19	133
7:45	14	0	8	8	48	0	0	0	0	0	59	29	166
8:00	20	0	10	8	60	0	0	0	0	0	57	31	186
8:15	16	0	9	8	49	0	0	0	0	0	66	25	173
8:30	18	0	9	14	55	0	0	0	0	0	84	21	201
8:45	13	0	6	26	56	1	0	0	0	0	57	25	184
9:00	22	0	17	22	61	0	0	0	0	0	66	18	206
9:15	20	0	18	12	52	0	0	0	0	0	45	21	168
9:30	27	0	17	16	43	0	0	0	0	0	62	20	185
9:45	17	0	8	20	68	0	0	0	0	0	70	20	203

Total Volume:	199	0	119	172	585	1	0	0	0	0	688	254	2018
Approach %	63%	0%	37%	23%	77%	0%	0%	0%	0%	0%	73%	27%	

Peak Hr Begin:	8:15												
PHV	69	0	41	70	221	1	0	0	0	0	273	89	764
PHF	0.705			0.880			0.000			0.862			0.927

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 5
North/South: Del Rey Ave
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	43	0	38	16	80	0	0	0	0	0	95	19	291
15:15	38	0	16	15	92	2	0	0	0	0	82	14	259
15:30	49	0	17	11	81	2	0	0	0	0	86	20	266
15:45	49	0	22	11	81	0	0	0	0	0	92	19	274
16:00	44	0	18	22	99	0	0	0	0	0	85	15	283
16:15	44	0	17	12	87	0	0	0	0	0	94	21	275
16:30	34	0	16	27	105	1	0	0	0	0	86	12	281
16:45	55	0	27	28	99	0	0	0	0	0	82	8	299
17:00	44	0	32	21	105	1	0	0	0	0	68	14	285
17:15	38	0	10	21	102	0	0	0	0	0	79	17	267
17:30	45	0	27	20	108	0	0	0	0	0	93	18	311
17:45	40	0	27	12	116	0	0	0	0	0	81	19	295

Total Volume:	523	0	267	216	1155	6	0	0	0	0	1023	196	3386
Approach %	66%	0%	34%	16%	84%	0%	0%	0%	0%	0%	84%	16%	

Peak Hr Begin:	16:45												
PHV	182	0	96	90	414	1	0	0	0	0	322	57	1162
PHF	0.848			0.986			0.000			0.854			0.934

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	4	0	0	0	0	0	0	0
7:15	16	0	0	0	0	0	3	0
7:30	14	1	0	0	0	0	0	0
7:45	12	0	0	0	0	0	1	0
8:00	14	1	0	1	0	0	1	0
8:15	19	0	0	0	0	0	1	0
8:30	12	1	3	0	0	0	2	0
8:45	13	0	0	0	0	0	1	0
9:00	17	1	0	0	0	0	1	0
9:15	25	1	3	1	0	0	0	0
9:30	10	1	3	0	0	0	1	0
9:45	14	1	2	0	0	0	1	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	26	1	1	0	0	0	0	0
15:15	20	1	1	0	0	0	0	0
15:30	18	1	0	0	0	0	1	0
15:45	13	0	0	0	0	0	1	0
16:00	24	0	1	0	0	0	0	0
16:15	19	0	0	0	0	0	0	0
16:30	26	0	0	0	0	0	1	0
16:45	23	3	0	0	0	0	2	1
17:00	25	0	0	0	0	0	1	0
17:15	27	1	0	0	0	0	3	0
17:30	28	1	0	0	0	0	1	1
17:45	30	0	1	0	0	0	0	1

Turning Movement Count Report AM

Location ID: 6
North/South: Glencoe Ave
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	3	41	4	9	10	11	3	120	13	14	9	11	248
7:15	5	39	4	10	5	13	7	112	16	8	11	13	243
7:30	7	66	1	10	6	12	9	156	13	17	12	14	323
7:45	10	67	11	9	19	12	9	187	15	21	24	20	404
8:00	14	84	7	13	20	10	18	152	19	23	18	19	397
8:15	8	105	3	11	28	16	9	144	18	28	17	18	405
8:30	12	86	3	9	12	10	7	132	21	30	25	25	372
8:45	18	69	6	13	13	24	15	160	35	22	22	13	410
9:00	20	69	6	13	22	10	20	140	29	20	29	17	395
9:15	9	83	6	8	15	10	9	120	25	25	23	18	351
9:30	11	82	5	20	14	10	17	127	25	38	16	15	380
9:45	23	70	4	6	16	10	12	130	31	25	13	18	358

Total Volume:	140	861	60	131	180	148	135	1680	260	271	219	201	4286
Approach %	13%	81%	6%	29%	39%	32%	7%	81%	13%	39%	32%	29%	

Peak Hr Begin:	8:00												
PHV	52	344	19	46	73	60	49	588	93	103	82	75	1584
PHF	0.894			0.814			0.869			0.813			0.966

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 6
North/South: Glencoe Ave
East/West: Maxella Ave

Date: 06/02/22
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	27	137	7	8	27	15	13	100	21	61	23	37	476
15:15	26	156	11	11	37	15	10	112	31	35	17	31	492
15:30	27	158	6	10	30	26	12	117	20	43	24	27	500
15:45	20	148	7	11	27	15	13	112	25	42	25	33	478
16:00	30	171	12	7	46	20	8	96	26	42	24	29	511
16:15	32	146	10	11	36	17	11	116	20	43	23	30	495
16:30	40	154	10	8	40	18	16	95	33	42	28	23	507
16:45	28	118	4	8	46	25	21	106	27	42	32	25	482
17:00	31	167	11	16	34	13	14	128	27	35	17	30	523
17:15	33	164	10	17	51	20	13	88	31	38	17	26	508
17:30	37	156	8	13	48	24	15	106	17	40	26	37	527
17:45	42	139	13	12	56	18	10	110	33	43	38	25	539

Total Volume:	373	1814	109	132	478	226	156	1286	311	506	294	353	6038
Approach %	16%	79%	5%	16%	57%	27%	9%	73%	18%	44%	25%	31%	

Peak Hr Begin:	17:00												
PHV	143	626	42	58	189	75	52	432	108	156	98	118	2097
PHF		0.970			0.915			0.876			0.877		0.973

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	7	1	3	0	3	1	6	1
7:15	4	0	2	0	0	0	5	0
7:30	10	0	8	0	4	0	7	0
7:45	8	0	3	0	2	0	3	0
8:00	5	0	0	0	1	1	2	1
8:15	11	0	1	0	5	0	10	0
8:30	5	0	1	0	5	0	5	1
8:45	9	0	2	0	9	0	11	0
9:00	7	0	3	0	9	0	6	0
9:15	13	0	3	0	7	0	5	0
9:30	7	1	2	0	4	0	6	1
9:45	2	0	1	0	1	1	6	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	1	2	0	6	0	6	1
15:15	7	0	3	0	7	2	11	2
15:30	9	2	4	0	8	0	11	0
15:45	11	0	2	0	4	1	8	2
16:00	10	1	5	0	7	1	13	1
16:15	16	0	6	0	11	0	7	1
16:30	9	0	7	0	5	0	12	0
16:45	14	2	9	2	12	0	14	0
17:00	9	0	4	0	5	0	12	0
17:15	13	0	9	0	13	2	16	0
17:30	21	0	10	0	4	0	6	0
17:45	13	1	3	0	7	0	8	1

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

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

STREET:
North / Sounth: Glencoe

East/West: Maxella

Day: Thursday, May 9, 2019 Weather: Sunny

Hours:

School Day: Yes District I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	106	173	89	51
BIKES	6	34	37	44
BUSES	10	15	22	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	217	7:45:00 AM	148	8:45:00 AM	94	8:30:00 AM	80	7:45:00 AM
PM PK 15 MIN	146	5:30:00 PM	242	5:30:00 PM	135	5:45:00 PM	120	5:45:00 PM
AM PK HOUR	756	7:15:00 AM	546	8:15:00 AM	364	8:00:00 AM	270	7:30:00 AM
PM PK HOUR	534	3:30:00 PM	883	5:00:00 PM	515	5:00:00 PM	430	5:00:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	85	616	53	754
8-9	109	471	64	644
9-10	105	468	62	635
3-4	89	369	71	529
4-5	95	364	51	510
5-6	72	377	54	503
TOTAL	555	2665	355	3575

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	19	250	56	325
8-9	33	421	78	532
9-10	27	397	77	501
3-4	41	660	97	798
4-5	26	675	102	803
5-6	50	715	118	883
TOTAL	196	3118	528	3842

	TOTAL	XING S/L		XING N/L	
Hours	N-S	Ped	Sch	Ped	Sch
7-8	1079	13	5	41	3
8-9	1176	22	1	44	5
9-10	1136	17	0	44	3
3-4	1327	39	1	50	2
4-5	1313	30	4	39	2
5-6	1386	31	8	64	6
TOTAL	7417	152	19	282	21

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	84	61	81	226
8-9	114	112	138	364
9-10	84	83	128	295
3-4	144	132	191	467
4-5	152	123	197	472
5-6	154	144	217	515
TOTAL	732	655	952	2339

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	57	70	93	220
8-9	73	93	81	247
9-10	56	97	78	231
3-4	96	144	72	312
4-5	86	165	79	330
5-6	106	201	123	430
TOTAL	474	770	526	1770

	TOTAL	XING W/L		XING E/L	
Hours	E-W	Ped	Sch	Ped	Sch
7-8	446	23	1	16	2
8-9	611	27	7	19	3
9-10	526	41	5	8	2
3-4	779	58	3	32	2
4-5	802	67	1	31	1
5-6	945	75	10	23	0
TOTAL	4109	291	27	129	10

Appendix D

CEQA T-1 Plans, Policies, Programs Consistency Worksheet

LADOT **Attachment D: Plan, Policy, and Program Consistency Worksheet**

Plans, Policies and Programs Consistency Worksheet

The worksheet provides a structured approach to evaluate the threshold T-1 question below, that asks whether a project conflicts with a program, plan, ordinance or policy addressing the circulation system. The intention of the worksheet is to streamline the project review by highlighting the most relevant plans, policies and programs when assessing potential impacts to the City's circulation system.

> ***Threshold T-1***: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?

This worksheet does not include an exhaustive list of City policies, and does not include community plans, specific plans, or any area-specific regulatory overlays. The Department of City Planning project planner will need to be consulted to determine if the project would obstruct the City from carrying out a policy or program in a community plan, specific plan, streetscape plan, or regulatory overlay that was adopted to support multimodal transportation options or public safety. LADOT staff should be consulted if a project would lead to a conflict with a mobility investment in the Public Right of Way (PROW) that is currently undergoing planning, design, or delivery. This worksheet must be completed for all projects that meet the Section I. Screening Criteria. For description of the relevant planning documents, **see Attachment D.1.**

For any response to the following questions that checks the box in **bold text** ((i.e.□ **Yes** or □ **No**), further analysis is needed to demonstrate that the project does not conflict with a plan, policy, or program.

I. SCREENING CRITERIA FOR POLICY ANALYSIS

If the answer is 'yes' to any of the following questions, further analysis will be required:

Does the project require a discretionary action that requires the decision maker to find that the project would substantially conform to the purpose, intent and provisions of the General Plan?

☑ Yes □ No

Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?

□ Yes ☑ No

Is the project required to or proposing to make any voluntary modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.)?

☑ Yes □ No

II. PLAN CONSISTENCY ANALYSIS

A. Mobility Plan 2035 PROW Classification Standards for Dedications and Improvements

These questions address potential conflict with:

LADOT

Plan, Policy, and Program Consistency Worksheet

Mobility Plan 2035 Policy 2.1 *– Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.*

Mobility Plan 2035 Policy 2.3 *– Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.*

Mobility Plan 2035 Policy 3.2 – *People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.*

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone? □ Yes ☑ No

A.2 If **A.1 is yes**, is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation. □ Yes □ No ☑ N/A

A.3 If **A.2 is yes**, is the project making the dedications and improvements as necessary to meet the designated dimensions of the fronting street (Boulevard I, and II, or Avenue I, II, or III)?

□ Yes □ No ☑ N/A

If the answer is to **A.1 or A.2 is NO, or to A.1, A.2 and A.3. is YES**, then the project does not conflict with the dedication and improvement requirements that are needed to comply with the Mobility Plan 2035 Street Designations and Standard Roadway Dimensions.

A.4 If the answer to **A.3. is NO**, is the project applicant asking to waive from the dedication standards?
□ Yes □ No ☑ N/A

Lists any streets subject to dedications or voluntary dedications and include existing roadway and sidewalk widths, required roadway and sidewalk widths, and proposed roadway and sidewalk width or waivers.

Del Rey Avenue
Frontage 1 Existing PROW'/Curb' : Existing 40/10 Required 40/20 Proposed 40/15

Frontage 2 Existing PROW'/Curb' : Existing ______________ Required ______________ Proposed ______________

Frontage 3 Existing PROW'/Curb' : Existing ______________ Required ______________ Proposed ______________

Frontage 4 Existing PROW'/Curb' : Existing ______________ Required ______________ Proposed ______________

If the answer to **A.4 is NO**, the project is inconsistent with Mobility Plan 2035 street designations and must file for a waiver of street dedication and improvement.

If the answer to **A.4 is YES**, additional analysis is necessary to determine if the dedication and/or improvements are necessary to meet the City's mobility needs for the next 20 years. The following factors may contribute to determine if the dedication or improvement is necessary:

Is the project site along any of the following networks identified in the City's Mobility Plan?

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network

To see the location of the above networks, see **Transportation Assessment Support Map**.[1]

Is the project within the service area of Metro Bike Share, or is there demonstrated demand for micro-mobility services?

If the project dedications and improvements asking to be waived are necessary to meet the City's mobility needs, the project may be found to conflict with a plan that is adopted to protect the environment.

B. Mobility Plan 2035 PROW Policy Alignment with Project-Initiated Changes

B.1 Project-Initiated Changes to the PROW Dimensions

These questions address potential conflict with:

Mobility Plan 2035 Policy 2.1 *– Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.*

Mobility Plan 2035 Policy 2.3 *– Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.*

Mobility Plan 2035 Policy 3.2 – *People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.*

Mobility Plan 2035 Policy 2.10 *– Loading Areas. Facilitate the provision of adequate on and off-site street loading areas.*

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

B.1 Does the project propose, above and beyond any PROW changes needed to comply with Section 12.37 of the LAMC as discussed in Section II.A, physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

Examples of developer-initiated physical changes to the public right-of-way include:

- widening the roadway,
- narrowing the sidewalk,
- adding space for vehicle turn outs or loading areas,
- removing bicycle lanes, bike share stations, or bicycle parking

[1] LADOT Transportation Assessment Support Map https://arcg.is/fubbD

- modifying existing bus stop, transit shelter, or other street furniture
- paving, narrowing, shifting or removing an existing parkway or tree well

☐ Yes ☑ No

B.2 Driveway Access

These questions address potential conflict with:

Mobility Plan 2035 Policy 2.10 *– Loading Areas. Facilitate the provision of adequate on and off-site street loading areas.*

Mobility Plan 2035 Program PL.1. Driveway Access. *Require driveway access to buildings from non-arterial streets or alleys (where feasible) in order to minimize interference with pedestrian access and vehicular movement.*

Citywide Design Guidelines - Guideline 2*: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.*

Site Planning Best Practices:

- *Prioritize pedestrian access first and automobile access second. Orient parking and driveways toward the rear or side of buildings and away from the public right-of-way. On corner lots, parking should be oriented as far from the corner as possible.*
- *Minimize both the number of driveway entrances and overall driveway widths.*
- *Do not locate drop-off/pick-up areas between principal building entrances and the adjoining sidewalks.*
- *Orient vehicular access as far from street intersections as possible.*
- *Place drive-thru elements away from intersections and avoid placing them so that they create a barrier between the sidewalk and building entrance(s).*
- *Ensure that loading areas do not interfere with on-site pedestrian and vehicular circulation by separating loading areas and larger commercial vehicles from areas that are used for public parking and public entrances.*

B.2 Does the project add new driveways along a street designated as an Avenue or a Boulevard that conflict with LADOT's Driveway Design Guidelines (See Sec. 321 in the Manual of Policies and Procedures) by any of the following:

- locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or
- the total number of new driveways exceeds 1 driveway per every 200 feet[2] along on the Avenue or Boulevard frontage, or
- locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- locating new driveways on a collector or local street within 75 feet from the intersecting street, or

[2] for a project frontage that exceeds 400 feet along an Avenue or Boulevard, the incremental additional driveway above 2 is more than 1 driveway for every 400 additional feet.

- locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

☐ **Yes** ☑ No

If the answer to **B.1 and B.2 are both NO**, then the project would not conflict with a plan or policies that govern the PROW as a result of the project-initiated changes to the PROW.

Impact Analysis

If the answer to either **B.1 or B.2 are YES**, City plans and policies should be reviewed in light of the proposed physical changes to determine if the City would be obstructed from carrying out the plans and policies. The analysis should pay special consideration to substantial changes to the Public Right of Way that may either degrade existing facilities for people walking and bicycling (e.g., removing a bicycle lane), or preclude the City from completing complete street infrastructure as identified in the Mobility Plan 2035, especially if the physical changes are along streets that are on the High Injury Network (HIN). The analysis should also consider if the project is in a Transit Oriented Community (TOC) area, and would degrade or inhibit trips made by biking, walking and/ or transit ridership. The streets that need special consideration are those that are included on the following networks identified in the Mobility Plan 2035, or the HIN:

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network
- High Injury Network

To see the location of the above networks, see **Transportation Assessment Support Map**.[3]

Once the project is reviewed relevant to plans and policies, and existing facilities that may be impacted by the project, the analysis will need to answer the following two questions in concluding if there is an impact due to plan inconsistency.

B.2.1 Would the physical changes in the public right of way or new driveways that conflict with LADOT's Driveway Design Guidelines degrade the experience of vulnerable roadway users such as modify, remove, or otherwise negatively impact existing bicycle, transit, and/or pedestrian infrastructure?

☐ **Yes** ☐ No ☑ N/A

B.2.2 Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?

☐ **Yes** ☐ No ☑ N/A

If either of the answers to either **B.2.1 or B.2.2 are YES**, the project may conflict with the Mobility Plan 2035, and therefore conflict with a plan that is adopted to protect the

[3] LADOT Transportation Assessment Support Map https://arcg.is/fubbD

environment. If either of the answers to both **B.2.1. or B.2.2. are NO**, then the project would not be shown to conflict with plans or policies that govern the Public Right-of-Way.

C. Network Access

C. 1 Alley, Street and Stairway Access

These questions address potential conflict with:

> ***Mobility Plan Policy 3.9*** *Increased Network Access: Discourage the vacation of public rights-of-way.*

C.1.1 Does the project propose to vacate or otherwise restrict public access to a street, alley, or public stairway?

☐ Yes ☑ No

C.1.2 If the answer to C.1.1 is Yes, will the project provide or maintain public access to people walking and biking on the street, alley or stairway?

☐ Yes ☐ **No** ☑ N/A

C.2 New Cul-de-sacs

These questions address potential conflict with:

> ***Mobility Plan 2035 Policy 3.10*** *Cul-de-sacs: Discourage the use of cul-de-sacs that do not provide access for active transportation options.*

C.2.1 Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac?

☐ Yes ☑ No

C.2.2 If yes, will the cul-de-sac maintain convenient and direct public access to people walking and biking to the adjoining street network?

☐ Yes ☐ **No** ☑ N/A

If the answers to either C.1.2 or C.2.2 are YES, then the project would not conflict with a plan or policies that ensures access for all modes of travel. If the answer to either **C.1.2 or C.2.2 are NO**, the project may conflict with a plan or policies that governs multimodal access to a property. Further analysis must assess to the degree that pedestrians and bicyclists have sufficient public access to the transportation network.

D. Parking Supply and Transportation Demand Management

These questions address potential conflict with:

> ***Mobility Plan 2035 Policy 3.8*** *– Bicycle Parking, Provide bicyclists with convenient, secure and well maintained bicycle parking facilities.*

> ***Mobility Plan 2035 Policy 4.8 –*** *Transportation Demand Management Strategies. Encourage greater utilization of Transportation Demand Management Strategies to reduce dependence on single-occupancy vehicles.*

Plan, Policy, and Program Consistency Worksheet

***Mobility Plan 2035 Policy 4.13** – Parking and Land Use Management: Balance on-street and off-street parking supply with other transportation and land use objectives.*

D.1 Would the project propose a supply of onsite parking that exceeds the baseline amount[4] as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?

☐ Yes ☑ No

D.2 If the answer to D.1. is YES, would the project propose to actively manage the demand of parking by independently pricing the supply to all users (e.g. parking cash-out), or for residential properties, unbundle the supply from the lease or sale of residential units?

☐ Yes ☐ **No** ☑ N/A

If the answer to **D.2. is NO** the project may conflict with parking management policies. Further analysis is needed to demonstrate how the supply of parking above city requirements will not result in additional (induced) drive-alone trips as compared to an alternative that provided no more parking than the baseline required by the LAMC or Specific Plan. If there is potential for the supply of parking to result in induced demand for drive-alone trips, the project should further explore transportation demand management (TDM) measures to further off-set the induced demands of driving and vehicle miles travelled (VMT) that may result from higher amounts of on-site parking. The TDM measures should specifically focus on strategies that encourage dynamic and context-sensitive pricing solutions and ensure the parking is efficiently allocated, such as providing real time information. Research has demonstrated that charging a user cost for parking or providing a 'cash-out' option in return for not using it is the most effective strategy to reduce the instances of drive-alone trips and increase non-auto mode share to further reduce VMT. To ensure the parking is efficiently managed and reduce the need to build parking for future uses, further strategies should include sharing parking with other properties and/or the general public.

D.3. Would the project provide the minimum on and off-site bicycle parking spaces as required by Section 12.21 A.16 of the LAMC?

☑ Yes ☐ **No**

D.4. Does the Project include more than 25,000 square feet of gross floor area construction of new non-residential gross floor?

☐ Yes ☑ No

D.5 If the answer to D.4. is YES, does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?

☐ Yes ☐ **No** ☑ N/A

If the answer to **D.3. or D.5. is NO** the project conflicts with LAMC code requirements of bicycle parking and TDM measures. If the project includes uses that require bicycle parking (Section 12.21 A.16) or TDM (Section 12.26 J), and the project does not comply with those Sections of the LAMC, further analysis is required to ensure that the project supports the intent of the two LAMC sections. To meet the intent of

[4] The baseline parking is defined here as the default parking requirements in section 12.21 A.4 of the Los Angeles Municipal Code or any applicable Specific Plan, whichever prevails, for each applicable use not taking into consideration other parking incentives to reduce the amount of required parking.

bicycle parking requirements, the analysis should identify how the project commits to providing safe access to those traveling by bicycle and accommodates storing their bicycle in locations that demonstrates priority over vehicle access.

Similarly, to meet the intent of the TDM requirements of Section 12.26 J of the LAMC, the analysis should identify how the project commits to providing effective strategies in either physical facilities or programs that encourage non-drive alone trips to and from the project site and changes in work schedule that move trips out of the peak period or eliminate them altogether (as in the case in telecommuting or compressed work weeks).

E. Consistency with Regional Plans

This section addresses potential inconsistencies with greenhouse gas (GHG) reduction targets forecasted in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS).

E.1 Does the Project or Plan apply one the City's efficiency-based impact thresholds (i.e. VMT per capita, VMT per employee, or VMT per service population) as discussed in **Section 2.2.3** of the TAG?

☑ Yes ☐ No

E.2 If the Answer to **E.1 is YES**, does the Project or Plan result in a significant VMT impact?

☐ **Yes** ☑ No ☐ N/A

E.3 If the Answer to **E.1 is NO**, does the Project result in a net increase in VMT?

☐ **Yes** ☐ No ☑ N/A

If the Answer to **E.2 or E.3 is NO**, then the Project or Plan is shown to align with the long-term VMT and GHG reduction goals of SCAG's RTP/SCS.

E.4 If the Answer to **E.2 or E.3 is YES,** then further evaluation would be necessary to determine whether such a project or land use plan would be shown to be consistent with VMT and GHG reduction goals of the SCAG RTP/SCS. For the purpose of making a finding that a project is consistent with the GHG reduction targets forecasted in the SCAG RTP/SCS, the project analyst should consult **Section 2.2.4** of the Transportation Assessment Guidelines (TAG). **Section 2.2.4** provides the methodology for evaluating a land use project's cumulative impacts to VMT, and the appropriate reliance on SCAG's most recently adopted RTP/SCS in reaching that conclusion.

The analysis methods therein can further support findings that the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to Section 65080(b)(2)(H) of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

References

BOE Street Standard Dimensions S-470-1
http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1_20151021_150849.pdf

LADCP Citywide Design Guidelines.
https://planning.lacity.org/odocument/f6608be7-d5fe-4187-bea6-20618eec5049/Citywide_Design_Guidelines.pdf

LADOT Transportation Assessment Support Map https://arcg.is/fubbD

Mobility Plan 2035
https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf

SCAG. Connect SoCal, 2020-2045 RTP/SCS, https://www.connectsocal.org/Pages/default.aspx

ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

The Transportation Element of the City's General Plan, Mobility Plan 2035, established the "Complete Streets Design Guide" as the City's document to guide the operations and design of streets and other public rights-of-way. It lays out a vision for designing safer, more vibrant streets that are accessible to people, no matter what their mode choice. As a living document, it is intended to be frequently updated as City departments identify and implement street standards and experiment with different configurations to promote complete streets. The guide is meant to be a toolkit that provides numerous examples of what is possible in the public right-of-way and that provides guidance on context-sensitive design.

The Plan for A Healthy Los Angeles (March 2015) includes policies directing several City departments to develop plans that promote active transportation and safety.

The City of Los Angeles Community Plans, which make up the Land Use Element of the City's General Plan, guide the physical development of neighborhoods by establishing the goals and policies for land use. The 35 Community Plans provide specific, neighborhood-level detail for land uses and the transportation network, relevant policies, and implementation strategies necessary to achieve General Plan and community-specific objectives.

The stated goal of Vision Zero is to eliminate traffic-related deaths in Los Angeles by 2025 through a number of strategies, including modifying the design of streets to increase the safety of vulnerable road users. Extensive crash data analysis is conducted on an ongoing basis to prioritize intersections and corridors for implementation of projects that will have the greatest effect on overall fatality reduction. The City designs and deploys Vision Zero Corridor Plans as part of the implementation of Vision Zero. If a project is proposed whose site lies on the High Injury Network (HIN), the applicant should consult with LADOT to inform the project's site plan and to determine appropriate improvements, whether by funding their implementation in full or by making a contribution toward their implementation.

The Citywide Design Guidelines (October 24, 2019) includes sections relevant to development projects where improvements are proposed within the public realm. Specifically, Guidelines one through three provide building design strategies that support the pedestrian experience. The Guidelines provide best practices in designing that apply in three spatial categories of site planning, building design and public right of way. The Guidelines should be followed to ensure that the project design supports pedestrian safety, access and comfort as they access to and from the building and the immediate public right of way.

The City's Transportation Demand Management (TDM) Ordinance (LA Municipal Code 12.26.J) requires certain projects to incorporate strategies that reduce drive-alone vehicle trips and improve access to destinations and services. The ordinance is revised and updated periodically and should be reviewed for application to specific projects as they are reviewed.

The City's LAMC Section 12.37 (Waivers of Dedication and Improvement) requires certain projects to dedicate and/or implement improvements within the public right-of-way to meet the street designation standards of the Mobility Plan 2035.

The Bureau of Engineering (BOE) Street Standard Dimensions S-470-1 provides the specific street widths and public right of way dimensions associated with the City's street standards.

Appendix E

VMT Analysis Worksheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

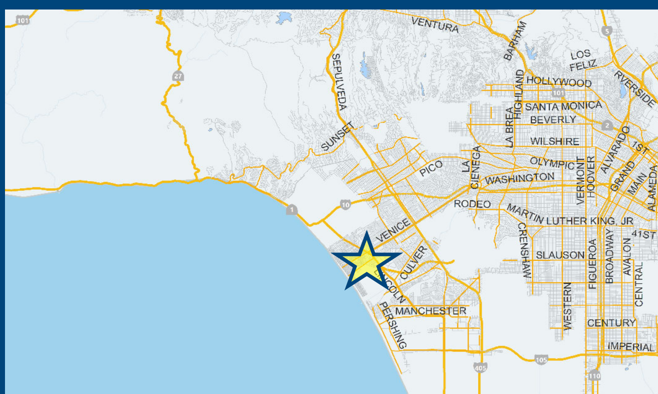
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: La Terra Marina Del Rey

Scenario: www

Address: 4112 S DEL REY AVE, 90292



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Industrial | Manufacturing	11.076	ksf
Office | General Office	20.789	ksf
Industrial | Manufacturing	11.076	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Multi-Family	210	DU
Housing | Multi-Family	210	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
238 Daily Vehicle Trips	**1,037** Daily Vehicle Trips
2,194 Daily VMT	**7,107** Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	799 Net Daily Trips
The net increase in daily VMT ≤ 0	4,913 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

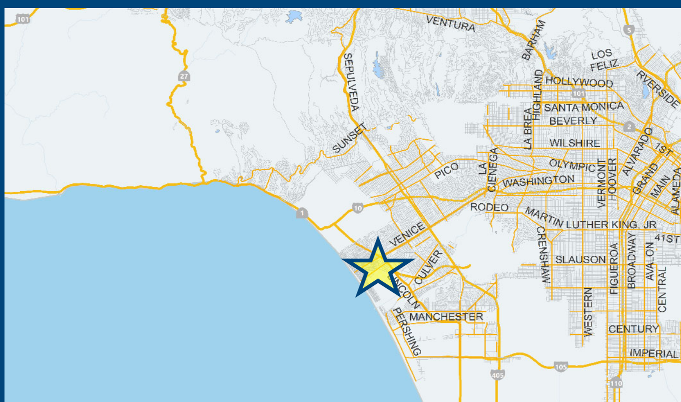
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: La Terra Marina Del Rey

Scenario:

Address: 4112 S DEL REY AVE, 90292



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	210	DU

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

A Parking

Reduce Parking Supply
- 344 — city code parking provision for the project site
- 282 — actual parking provision for the project site
- ☑ Proposed Prj ☐ Mitigation

Unbundle Parking
- 175 — monthly parking cost (dollar) for the project site
- ☐ Proposed Prj ☐ Mitigation

Parking Cash-Out
- 50 — percent of employees eligible
- ☐ Proposed Prj ☐ Mitigation

Price Workplace Parking
- 6.00 — daily parking charge (dollar)
- 100 — percent of employees subject to priced parking
- ☐ Proposed Prj ☐ Mitigation

Residential Area Parking Permits
- 200 — cost (dollar) of annual permit
- ☐ Proposed Prj ☐ Mitigation

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

	Proposed Project	With Mitigation
Daily Vehicle Trips	938	938
Daily VMT	6,427	6,427
Household VMT per Capita	6.9	6.9
Work VMT per Employee	N/A	N/A

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 7.4 15% Below APC	**Household: No** Threshold = 7.4 15% Below APC
Work: N/A Threshold = 11.1 15% Below APC	**Work: N/A** Threshold = 11.1 15% Below APC

Measuring the Miles

9/8/2022

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	210	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	*0.000*	*ksf*
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 8, 2022
Project Name: La Terra Marina Del Rey
Project Scenario:
Project Address: 4112 S DEL REY AVE, 90292

Version 1.3

Analysis Results			
Total Employees: 0 Total Population: 473			
Proposed Project		***With Mitigation***	
938	**Daily Vehicle Trips**	**938**	**Daily Vehicle Trips**
6,427	**Daily VMT**	**6,427**	**Daily VMT**
6.9	**Household VMT per Capita**	**6.9**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?			
APC: West Los Angeles			
Impact Threshold: 15% Below APC Average Household = 7.4 Work = 11.1			
Proposed Project		***With Mitigation***	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 7.4	No	Household > 7.4	No
Work > 11.1	N/A	Work > 11.1	N/A

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 8, 2022
Project Name: La Terra Marina Del Rey
Project Scenario:
Project Address: 4112 S DEL REY AVE, 90292

Version 1.3

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	344	344
		Actual parking provision (spaces)	282	282
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*
MAX. TDM EFFECT	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*

= Minimum (X%, 1-[(1-A)*(1-B)...])
where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)...]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: September 8, 2022
Project Name: La Terra Marina Del Rey
Project Scenario:
Project Address: 4112 S DEL REY AVE, 90292

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	188	-10.1%	169	8.3	1,560	1,403
Home Based Other Production	521	-25.7%	387	5.7	2,970	2,206
Non-Home Based Other Production	243	-2.1%	238	7.1	1,725	1,690
Home-Based Work Attraction	0	0.0%	0	11.2	0	0
Home-Based Other Attraction	248	-25.0%	186	7.3	1,810	1,358
Non-Home Based Other Attraction	59	-3.4%	57	7.9	466	450

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-9.6%	153	1,269	-9.6%	153	1,269
Home Based Other Production	-9.6%	350	1,995	-9.6%	350	1,995
Non-Home Based Other Production	-9.6%	215	1,528	-9.6%	215	1,528
Home-Based Work Attraction	-9.6%	0	0	-9.6%	0	0
Home-Based Other Attraction	-9.6%	168	1,228	-9.6%	168	1,228
Non-Home Based Other Attraction	-9.6%	52	407	-9.6%	52	407

MXD VMT Methodology Per Capita & Per Employee

Total Population: 473
Total Employees: 0
APC: West Los Angeles

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**3,264**	**3,264**
Total Home Based Work Attraction VMT	**0**	**0**
Total Home Based VMT Per Capita	**6.9**	**6.9**
Total Work Based VMT Per Employee	**N/A**	**N/A**

Appendix F

HCM Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	754	459	121	618	201	723	1325	158	268	1079	142
Future Volume (veh/h)	77	754	459	121	618	201	723	1325	158	268	1079	142
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	820	499	132	672	218	786	1440	172	291	1173	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	877	772	184	772	501	830	2049	245	342	1373	180
Arrive On Green	0.08	0.25	0.25	0.05	0.22	0.22	0.24	0.44	0.44	0.10	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4623	552	3456	4567	599
Grp Volume(v), veh/h	84	820	499	132	672	218	786	1060	552	291	874	453
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1771	1728	1702	1762
Q Serve(g_s), s	3.4	33.9	35.4	5.6	27.4	11.5	33.6	37.8	37.8	12.4	36.2	36.3
Cycle Q Clear(g_c), s	3.4	33.9	35.4	5.6	27.4	11.5	33.6	37.8	37.8	12.4	36.2	36.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		0.34
Lane Grp Cap(c), veh/h	283	877	772	184	772	501	830	1509	785	342	1024	530
V/C Ratio(X)	0.30	0.94	0.65	0.72	0.87	0.43	0.95	0.70	0.70	0.85	0.85	0.85
Avail Cap(c_a), veh/h	283	877	772	187	877	548	848	1509	785	438	1024	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	55.3	28.8	69.9	56.7	21.5	56.0	33.8	33.8	66.5	49.4	49.4
Incr Delay (d2), s/veh	0.6	16.9	1.9	12.4	8.7	0.6	19.1	2.8	5.2	12.0	9.0	16.0
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(95%),veh/ln	2.8	24.0	20.0	5.1	19.2	7.9	23.6	22.8	24.3	10.1	23.4	25.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	72.2	30.7	82.3	65.3	22.1	75.1	36.5	39.0	78.5	58.4	65.4
LnGrp LOS	E	E	C	F	E	C	E	D	D	E	E	E
Approach Vol, veh/h		1403			1022			2398			1618	
Approach Delay, s/veh		57.1			58.3			49.7			64.0	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	72.3	13.9	43.0	42.2	50.9	18.3	38.6
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	* 8	37.0
Max Q Clear Time (g_c+I1), s	14.4	39.8	7.6	37.4	35.6	38.3	5.4	29.4
Green Ext Time (p_c), s	0.4	17.6	0.0	0.0	0.5	4.3	0.0	3.2

Intersection Summary			
HCM 6th Ctrl Delay			56.3
HCM 6th LOS			E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	754	459	121	618	201	723	1325	158	268	1079	142
Future Volume (veh/h)	77	754	459	121	618	201	723	1325	158	268	1079	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	820	499	132	672	218	786	1440	172	291	1173	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	283	877	772	184	772	501	830	2049	245	342	1373	180
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
Prop Arrive On Green	0.08	0.25	0.25	0.05	0.22	0.22	0.24	0.44	0.44	0.10	0.30	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	65.4	72.2	30.7	82.3	65.3	22.1	75.1	36.5	39.0	78.5	58.4	65.4
Ln Grp LOS	E	E	C	F	E	C	E	D	D	E	E	E
Approach Vol, veh/h		1403			1022			2398			1618	
Approach Delay, s/veh		57.1			58.3			49.7			64.0	
Approach LOS		E			E			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	20.9	72.3	13.9	43.0	42.2	50.9	38.6	18.3
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	37.0	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.8	3.8	5.8	5.0	3.8
Max Q Clear (g_c+I1), s	14.4	39.8	7.6	37.4	35.6	38.3	29.4	5.4
Green Ext Time (g_e), s	0.4	17.6	0.0	0.0	0.5	4.3	3.2	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Prob of Max Out (p_x)	0.59	0.00	1.00	1.00	1.00	0.00	0.65	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4623		3554		4567	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		552		1585		599	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	291	0	132	0	786	0	0	84
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	12.4	0.0	5.6	0.0	33.6	0.0	0.0	3.4
Cycle Q Clear Time (g_c), s	12.4	0.0	5.6	0.0	33.6	0.0	0.0	3.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	342	0	184	0	830	0	0	283
V/C Ratio (X)	0.85	0.00	0.72	0.00	0.95	0.00	0.00	0.30
Avail Cap (c_a), veh/h	438	0	187	0	848	0	0	283
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	66.5	0.0	69.9	0.0	56.0	0.0	0.0	64.8
Incr Delay (d2), s/veh	12.0	0.0	12.4	0.0	19.1	0.0	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	78.5	0.0	82.3	0.0	75.1	0.0	0.0	65.4
1st-Term Q (Q1), veh/ln	5.5	0.0	2.5	0.0	14.6	0.0	0.0	1.5
2nd-Term Q (Q2), veh/ln	0.6	0.0	0.3	0.0	2.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.67	0.00	1.80	0.00	1.40	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	10.1	0.0	5.1	0.0	23.6	0.0	0.0	2.8
%ile Storage Ratio (RQ%)	1.29	0.00	0.45	0.00	1.50	0.00	0.00	0.40
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1060	0	820	0	874	672	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	37.8	0.0	33.9	0.0	36.2	27.4	0.0
Cycle Q Clear Time (g_c), s	0.0	37.8	0.0	33.9	0.0	36.2	27.4	0.0
Lane Grp Cap (c), veh/h	0	1509	0	877	0	1024	772	0
V/C Ratio (X)	0.00	0.70	0.00	0.94	0.00	0.85	0.87	0.00
Avail Cap (c_a), veh/h	0	1509	0	877	0	1024	877	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	0.0	55.3	0.0	49.4	56.7	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	16.9	0.0	9.0	8.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.5	0.0	72.2	0.0	58.4	65.3	0.0
1st-Term Q (Q1), veh/ln	0.0	15.7	0.0	15.2	0.0	15.4	12.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	2.1	0.0	1.3	0.9	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.41	0.00	1.39	0.00	1.40	1.45	0.00
%ile Back of Q (95%), veh/ln	0.0	22.8	0.0	24.0	0.0	23.4	19.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	1.71	0.00	0.74	4.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	552	0	499	0	453	218	0
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1762	1585	0
Q Serve Time (g_s), s	0.0	37.8	0.0	35.4	0.0	36.3	11.5	0.0
Cycle Q Clear Time (g_c), s	0.0	37.8	0.0	35.4	0.0	36.3	11.5	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	36.0	0.0	0.0	14.9	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.34	1.00	0.00
Lane Grp Cap (c), veh/h	0	785	0	772	0	530	501	0
V/C Ratio (X)	0.00	0.70	0.00	0.65	0.00	0.85	0.43	0.00
Avail Cap (c_a), veh/h	0	785	0	772	0	530	548	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	0.0	28.8	0.0	49.4	21.5	0.0
Incr Delay (d2), s/veh	0.0	5.2	0.0	1.9	0.0	16.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.0	0.0	30.7	0.0	65.4	22.1	0.0
1st-Term Q (Q1), veh/ln	0.0	16.3	0.0	13.5	0.0	16.0	4.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	0.4	0.0	2.4	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	0.00	1.44	0.00	1.38	1.78	0.00
%ile Back of Q (95%), veh/ln	0.0	24.3	0.0	20.0	0.0	25.4	7.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	1.42	0.00	0.80	1.89	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	56.3
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1110	86	45	909	86	0	0	106	0	0	28
Future Vol, veh/h	9	1110	86	45	909	86	0	0	106	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1207	93	49	988	93	0	0	115	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1081	0	0	1300	0	0	-	-	650	-	-	541
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	358	-	-	529	-	-	0	0	412	0	0	416
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	358	-	-	529	-	-	-	-	412	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	17.1	14.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	412	358	-	-	529	-	-	416
HCM Lane V/C Ratio	0.28	0.027	-	-	0.092	-	-	0.073
HCM Control Delay (s)	17.1	15.3	-	-	12.5	-	-	14.3
HCM Lane LOS	C	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.3	-	-	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	916	154	268	675	291	266	129	461	106	66	45
Future Volume (veh/h)	27	916	154	268	675	291	266	129	461	106	66	45
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	996	167	291	734	316	214	244	501	94	102	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	2270	1013	321	2270	1013	350	488	414	188	488	414
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	537	3554	1585	483	3554	1585	1236	1870	1585	715	1870	1585
Grp Volume(v), veh/h	29	996	167	291	734	316	214	244	501	94	102	49
Grp Sat Flow(s),veh/h/ln	537	1777	1585	483	1777	1585	1236	1870	1585	715	1870	1585
Q Serve(g_s), s	2.3	12.7	3.8	44.8	8.5	8.1	14.7	10.0	23.5	11.6	3.8	2.1
Cycle Q Clear(g_c), s	10.8	12.7	3.8	57.5	8.5	8.1	18.6	10.0	23.5	21.5	3.8	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	2270	1013	321	2270	1013	350	488	414	188	488	414
V/C Ratio(X)	0.08	0.44	0.16	0.91	0.32	0.31	0.61	0.50	1.21	0.50	0.21	0.12
Avail Cap(c_a), veh/h	373	2270	1013	321	2270	1013	350	488	414	188	488	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	8.2	6.6	26.5	7.4	7.3	33.2	28.3	33.3	37.4	26.0	25.4
Incr Delay (d2), s/veh	0.1	0.1	0.1	28.1	0.1	0.2	7.7	3.6	115.3	9.3	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	7.7	2.1	13.8	5.1	4.4	8.8	8.5	32.9	4.4	3.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	8.3	6.6	54.6	7.5	7.5	41.0	31.9	148.5	46.7	27.0	25.9
LnGrp LOS	A	A	A	D	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1192			1341			959			245	
Approach Delay, s/veh		8.1			17.7			94.8			34.3	
Approach LOS		A			B			F			C	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		23.5		57.5		23.5		57.5
Max Q Clear Time (g_c+I1), s		25.5		14.7		23.5		59.5
Green Ext Time (p_c), s		0.0		10.6		0.0		0.0

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

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	916	154	268	675	291	266	129	461	106	66	45
Future Volume (veh/h)	27	916	154	268	675	291	266	129	461	106	66	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	996	167	291	734	316	214	244	501	94	102	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	373	2270	1013	321	2270	1013	350	488	414	188	488	414
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
Prop Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.9	8.3	6.6	54.6	7.5	7.5	41.0	31.9	148.5	46.7	27.0	25.9
Ln Grp LOS	A	A	A	D	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1192			1341			959			245	
Approach Delay, s/veh		8.1			17.7			94.8			34.3	
Approach LOS		A			B			F			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		23.5		57.5		23.5		57.5
Max Allow Headway (MAH), s		4.4		5.1		5.4		5.7
Max Q Clear (g_c+I1), s		25.5		14.7		23.5		59.5
Green Ext Time (g_e), s		0.0		10.6		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.03		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1236		537		715		483
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	214	0	29	0	94	0	291
Grp Sat Flow (s), veh/h/ln	0	1236	0	537	0	715	0	483
Q Serve Time (g_s), s	0.0	14.7	0.0	2.3	0.0	11.6	0.0	44.8
Cycle Q Clear Time (g_c), s	0.0	18.6	0.0	10.8	0.0	21.5	0.0	57.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1236	0	537	0	715	0	483
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.5	0.0	57.5	0.0	23.5	0.0	57.5
Perm LT Serve Time (g_u), s	0.0	19.7	0.0	49.0	0.0	13.5	0.0	44.8
Perm LT Q Serve Time (g_ps), s	0.0	14.7	0.0	2.3	0.0	11.6	0.0	44.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	350	0	373	0	188	0	321
V/C Ratio (X)	0.00	0.61	0.00	0.08	0.00	0.50	0.00	0.91
Avail Cap (c_a), veh/h	0	350	0	373	0	188	0	321
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.2	0.0	9.9	0.0	37.4	0.0	26.5
Incr Delay (d2), s/veh	0.0	7.7	0.0	0.1	0.0	9.3	0.0	28.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.0	0.0	9.9	0.0	46.7	0.0	54.6
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	0.3	0.0	2.0	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	2.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.73	0.00	1.80	0.00	1.80	0.00	1.55
%ile Back of Q (95%), veh/ln	0.0	8.8	0.0	0.5	0.0	4.4	0.0	13.8
%ile Storage Ratio (RQ%)	0.00	2.22	0.00	0.04	0.00	0.40	0.00	1.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	244	0	996	0	102	0	734
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	10.0	0.0	12.7	0.0	3.8	0.0	8.5
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	12.7	0.0	3.8	0.0	8.5
Lane Grp Cap (c), veh/h	0	488	0	2270	0	488	0	2270
V/C Ratio (X)	0.00	0.50	0.00	0.44	0.00	0.21	0.00	0.32
Avail Cap (c_a), veh/h	0	488	0	2270	0	488	0	2270
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.3	0.0	8.2	0.0	26.0	0.0	7.4
Incr Delay (d2), s/veh	0.0	3.6	0.0	0.1	0.0	1.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.9	0.0	8.3	0.0	27.0	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	4.2	0.0	1.7	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.74	0.00	1.79	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	8.5	0.0	7.7	0.0	3.3	0.0	5.1
%ile Storage Ratio (RQ%)	0.00	0.85	0.00	0.81	0.00	0.29	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	167	0	49	0	316
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.5	0.0	3.8	0.0	2.1	0.0	8.1
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	3.8	0.0	2.1	0.0	8.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	414	0	1013	0	414	0	1013
V/C Ratio (X)	0.00	1.21	0.00	0.16	0.00	0.12	0.00	0.31
Avail Cap (c_a), veh/h	0	414	0	1013	0	414	0	1013
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.3	0.0	6.6	0.0	25.4	0.0	7.3
Incr Delay (d2), s/veh	0.0	115.3	0.0	0.1	0.0	0.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	148.5	0.0	6.6	0.0	25.9	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	1.1	0.0	0.8	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	13.3	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	32.9	0.0	2.1	0.0	1.5	0.0	4.4
%ile Storage Ratio (RQ%)	0.00	8.37	0.00	0.67	0.00	0.14	0.00	1.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

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

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	81	187	161	36	140	87	2062	223	114	1458	57
Future Volume (veh/h)	71	81	187	161	36	140	87	2062	223	114	1458	57
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	88	203	175	39	152	95	2241	242	124	1585	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	440	212	222	285	719	2885	1084	210	2708	106
Arrive On Green	0.07	0.07	0.07	0.12	0.12	0.12	0.21	0.56	0.56	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6401	250
Grp Volume(v), veh/h	77	88	203	175	39	152	95	2241	242	124	1195	452
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1825
Q Serve(g_s), s	5.5	6.0	0.0	12.5	2.4	11.3	2.9	44.2	7.4	4.5	24.7	24.7
Cycle Q Clear(g_c), s	5.5	6.0	0.0	12.5	2.4	11.3	2.9	44.2	7.4	4.5	24.7	24.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	123	129	440	212	222	285	719	2885	1084	210	2042	772
V/C Ratio(X)	0.62	0.68	0.46	0.83	0.18	0.53	0.13	0.78	0.22	0.59	0.59	0.59
Avail Cap(c_a), veh/h	123	129	440	356	374	413	719	2885	1084	226	2042	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	59.1	38.9	56.0	51.5	48.4	41.9	21.9	7.7	59.5	28.8	28.8
Incr Delay (d2), s/veh	9.4	13.4	0.8	8.0	0.4	1.6	0.1	2.1	0.5	3.5	1.2	3.2
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(95%),veh/ln	5.0	6.0	9.3	10.1	2.1	8.1	2.3	24.5	6.9	3.8	14.8	17.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	72.5	39.7	63.9	51.9	49.9	42.0	24.1	8.1	63.0	30.0	32.0
LnGrp LOS	E	E	D	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		368			366			2578			1771	
Approach Delay, s/veh		53.5			56.8			23.2			32.8	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	79.3		21.5	33.0	60.4		15.1				
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1				
Max Green Setting (Gmax), s	* 8.5	* 63		26.0	16.5	* 55		9.0				
Max Q Clear Time (g_c+I1), s	10.5	46.2		14.5	4.9	26.7		8.0				
Green Ext Time (p_c), s	0.1	14.2		1.0	0.2	14.3		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	81	187	161	36	140	87	2062	223	114	1458	57
Future Volume (veh/h)	71	81	187	161	36	140	87	2062	223	114	1458	57
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	88	203	175	39	152	95	2241	242	124	1585	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	440	212	222	285	719	2885	1084	210	2708	106
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
Prop Arrive On Green	0.07	0.07	0.07	0.12	0.12	0.12	0.21	0.56	0.56	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.3	72.5	39.7	63.9	51.9	49.9	42.0	24.1	8.1	63.0	30.0	32.0
Ln Grp LOS	E	E	D	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		368			366			2578			1771	
Approach Delay, s/veh		53.5			56.8			23.2			32.8	
Approach LOS		D			E			C			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.0	79.3	15.1	21.5	60.4	33.0		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 63	9.0	26.0	* 55	16.5		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+l1), s	6.5	46.2	8.0	14.5	26.7	4.9		
Green Ext Time (g_e), s	0.1	14.2	0.2	1.0	14.3	0.2		
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	0.97		
Prob of Max Out (p_x)	1.00	0.00	1.00	0.02	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6401			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	250			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	124	0	77	175	0	95	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	4.5	0.0	5.5	12.5	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	4.5	0.0	5.5	12.5	0.0	2.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	210	0	123	212	0	719	0	0
V/C Ratio (X)	0.59	0.00	0.62	0.83	0.00	0.13	0.00	0.00
Avail Cap (c_a), veh/h	226	0	123	356	0	719	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.5	0.0	58.9	56.0	0.0	41.9	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	9.4	8.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.0	0.0	68.3	63.9	0.0	42.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.0	0.0	2.5	5.6	0.0	1.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.66	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	3.8	0.0	5.0	10.1	0.0	2.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.48	0.00	2.56	3.96	0.00	0.89	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	2241	88	39	1195	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	44.2	6.0	2.4	24.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	44.2	6.0	2.4	24.7	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2885	129	222	2042	0	0	0
V/C Ratio (X)	0.00	0.78	0.68	0.18	0.59	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2885	129	374	2042	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.9	59.1	51.5	28.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	13.4	0.4	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.1	72.5	51.9	30.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	17.1	2.8	1.2	9.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.5	0.0	0.2	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	1.80	1.80	1.53	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	24.5	6.0	2.1	14.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.51	0.76	0.41	0.73	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	242	203	152	452	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1825	0	0	0
Q Serve Time (g_s), s	0.0	7.4	0.0	11.3	24.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.4	0.0	11.3	24.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	15.4	27.1	7.9	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.14	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1084	440	285	772	0	0	0
V/C Ratio (X)	0.00	0.22	0.46	0.53	0.59	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1084	440	413	772	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.7	38.9	48.4	28.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.8	1.6	3.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.1	39.7	49.9	32.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.7	5.4	4.5	10.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.1	0.7	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.70	1.76	1.48	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	6.9	9.3	8.1	17.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.74	4.74	1.58	0.84	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	103	317	256	81	48	80
Future Vol, veh/h	103	317	256	81	48	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	345	278	88	52	87

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	366	0	-	0	719	183
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1189	-	-	-	363	828
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1189	-	-	-	329	828
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	648	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1189	-	-	-	329	828
HCM Lane V/C Ratio	0.094	-	-	-	0.159	0.105
HCM Control Delay (s)	8.3	-	-	-	18	9.9
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	95	119	70	85	53	108	682	57	22	399	60
Future Volume (veh/h)	87	95	119	70	85	53	108	682	57	22	399	60
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	103	129	76	92	58	117	741	62	24	434	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	618	804	682	576	928	543	389	745	631	122	1236	184
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1237	1870	1585	1148	2157	1263	899	1870	1585	678	3102	462
Grp Volume(v), veh/h	95	103	129	76	75	75	117	741	62	24	247	252
Grp Sat Flow(s),veh/h/ln	1237	1870	1585	1148	1777	1643	899	1870	1585	678	1777	1787
Q Serve(g_s), s	3.0	2.0	3.0	2.6	1.5	1.6	6.3	23.7	1.5	0.2	5.8	5.9
Cycle Q Clear(g_c), s	4.6	2.0	3.0	4.6	1.5	1.6	12.2	23.7	1.5	23.9	5.8	5.9
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	618	804	682	576	764	707	389	745	631	122	708	712
V/C Ratio(X)	0.15	0.13	0.19	0.13	0.10	0.11	0.30	0.99	0.10	0.20	0.35	0.35
Avail Cap(c_a), veh/h	618	804	682	576	764	707	389	745	631	122	708	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	10.3	10.6	11.7	10.2	10.2	16.9	18.0	11.3	30.0	12.6	12.6
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.5	0.3	0.3	0.4	31.6	0.1	0.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	1.3	1.7	1.2	1.0	1.0	2.2	21.7	0.8	0.6	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	10.4	10.7	12.2	10.4	10.5	17.3	49.5	11.4	30.8	12.9	12.9
LnGrp LOS	B	B	B	B	B	B	B	D	B	C	B	B
Approach Vol, veh/h		327			226			920			523	
Approach Delay, s/veh		10.9			11.0			42.9			13.7	
Approach LOS		B			B			D			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		6.6		25.9		6.6		25.7				
Green Ext Time (p_c), s		1.0		0.0		1.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			26.4
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	87	95	119	70	85	53	108	682	57	22	399	60
Future Volume (veh/h)	87	95	119	70	85	53	108	682	57	22	399	60
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	103	129	76	92	58	117	741	62	24	434	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	618	804	682	576	928	543	389	745	631	122	1236	184
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	10.4	10.7	12.2	10.4	10.5	17.3	49.5	11.4	30.8	12.9	12.9
Ln Grp LOS	B	B	B	B	B	B	B	D	B	C	B	B
Approach Vol, veh/h		327			226			920			523	
Approach Delay, s/veh		10.9			11.0			42.9			13.7	
Approach LOS		B			B			D			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.0		5.3		4.4		5.2
Max Q Clear (g_c+I1), s		6.6		25.9		6.6		25.7
Green Ext Time (g_e), s		1.0		0.0		1.2		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1148		678		1237		899
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2157		3102		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1263		462		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	76	0	24	0	95	0	117
Grp Sat Flow (s), veh/h/ln	0	1148	0	678	0	1237	0	899
Q Serve Time (g_s), s	0.0	2.6	0.0	0.2	0.0	3.0	0.0	6.3
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	23.9	0.0	4.6	0.0	12.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1148	0	678	0	1237	0	899
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.8	0.0	0.2	0.0	24.2	0.0	18.0
Perm LT Q Serve Time (g_ps), s	0.0	2.6	0.0	0.2	0.0	3.0	0.0	6.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	576	0	122	0	618	0	389
V/C Ratio (X)	0.00	0.13	0.00	0.20	0.00	0.15	0.00	0.30
Avail Cap (c_a), veh/h	0	576	0	122	0	618	0	389
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.7	0.0	30.0	0.0	11.6	0.0	16.9
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.8	0.0	0.1	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
Control Delay (d), s/veh	0.0	12.2	0.0	30.8	0.0	11.7	0.0	17.3
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.3	0.0	0.7	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.2	0.0	0.6	0.0	1.3	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.17	0.00	0.25	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	75	0	247	0	103	0	741
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.5	0.0	5.8	0.0	2.0	0.0	23.7
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	5.8	0.0	2.0	0.0	23.7
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.10	0.00	0.35	0.00	0.13	0.00	0.99
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.6	0.0	10.3	0.0	18.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.1	0.0	31.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.4	0.0	12.9	0.0	10.4	0.0	49.5
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	2.0	0.0	0.7	0.0	8.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	6.5

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.42
%ile Back of Q (95%), veh/ln	0.0	1.0	0.0	3.8	0.0	1.3	0.0	21.7
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.19	0.00	0.08	0.00	1.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	75	0	252	0	129	0	62
Grp Sat Flow (s), veh/h/ln	0	1643	0	1787	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.6	0.0	5.9	0.0	3.0	0.0	1.5
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	5.9	0.0	3.0	0.0	1.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.77	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	707	0	712	0	682	0	631
V/C Ratio (X)	0.00	0.11	0.00	0.35	0.00	0.19	0.00	0.10
Avail Cap (c_a), veh/h	0	707	0	712	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.6	0.0	10.6	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	12.9	0.0	10.7	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	2.1	0.0	0.9	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.0	0.0	3.9	0.0	1.7	0.0	0.8
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.19	0.00	0.11	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		26.4
HCM 6th LOS		C

Notes

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

HCM 6th Signalized Intersection Summary
1: Lincoln Boulevard & Washington Boulevard

09/15/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	748	626	273	819	284	444	1174	217	164	1509	89
Future Volume (veh/h)	97	748	626	273	819	284	444	1174	217	164	1509	89
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	813	680	297	890	309	483	1276	236	178	1640	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	782	596	311	910	510	538	2018	373	228	1849	109
Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.47	0.47	0.07	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4330	801	3456	4931	291
Grp Volume(v), veh/h	105	813	680	297	890	309	483	1003	509	178	1132	605
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1726	1728	1702	1818
Q Serve(g_s), s	4.4	33.0	33.0	12.8	37.3	18.3	20.6	33.5	33.5	7.6	46.7	46.8
Cycle Q Clear(g_c), s	4.4	33.0	33.0	12.8	37.3	18.3	20.6	33.5	33.5	7.6	46.7	46.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.16
Lane Grp Cap(c), veh/h	184	782	596	311	910	510	538	1587	805	228	1276	682
V/C Ratio(X)	0.57	1.04	1.14	0.95	0.98	0.61	0.90	0.63	0.63	0.78	0.89	0.89
Avail Cap(c_a), veh/h	184	782	596	311	910	510	620	1587	805	369	1276	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	58.5	46.8	67.9	55.4	24.5	62.1	30.3	30.3	69.0	43.9	43.9
Incr Delay (d2), s/veh	4.1	43.0	82.6	39.0	24.5	2.0	14.6	1.9	3.8	5.8	9.3	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	27.4	49.1	11.8	27.1	11.7	15.4	20.4	21.1	6.4	28.9	32.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	101.5	129.4	106.9	79.9	26.6	76.7	32.2	34.1	74.8	53.2	59.8
LnGrp LOS	E	F	F	F	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1598			1496			1995			1915	
Approach Delay, s/veh		111.6			74.3			43.5			57.3	
Approach LOS		F			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	75.7	19.4	39.0	29.6	62.0	14.0	44.4
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	* 8	38.4
Max Q Clear Time (g_c+I1), s	9.6	35.5	14.8	35.0	22.6	48.8	6.4	39.3
Green Ext Time (p_c), s	0.3	20.2	0.0	0.0	0.8	3.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.4
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	748	626	273	819	284	444	1174	217	164	1509	89
Future Volume (veh/h)	97	748	626	273	819	284	444	1174	217	164	1509	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	813	680	297	890	309	483	1276	236	178	1640	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	184	782	596	311	910	510	538	2018	373	228	1849	109
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
Prop Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.47	0.47	0.07	0.37	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.4	101.5	129.4	106.9	79.9	26.6	76.7	32.2	34.1	74.8	53.2	59.8
Ln Grp LOS	E	F	F	F	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1598			1496			1995			1915	
Approach Delay, s/veh		111.6			74.3			43.5			57.3	
Approach LOS		F			E			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	15.9	75.7	19.4	39.0	29.6	62.0	44.4	14.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	38.4	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.7	3.8	5.8	4.9	3.8
Max Q Clear (g_c+l1), s	9.6	35.5	14.8	35.0	22.6	48.8	39.3	6.4
Green Ext Time (g_e), s	0.3	20.2	0.0	0.0	0.8	3.4	0.0	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Prob of Max Out (p_x)	0.09	0.00	1.00	1.00	0.77	0.00	1.00	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4330		3554		4931	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		801		1585		291	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	178	0	297	0	483	0	0	105
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	7.6	0.0	12.8	0.0	20.6	0.0	0.0	4.4
Cycle Q Clear Time (g_c), s	7.6	0.0	12.8	0.0	20.6	0.0	0.0	4.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	228	0	311	0	538	0	0	184
V/C Ratio (X)	0.78	0.00	0.95	0.00	0.90	0.00	0.00	0.57
Avail Cap (c_a), veh/h	369	0	311	0	620	0	0	184
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	69.0	0.0	67.9	0.0	62.1	0.0	0.0	69.3
Incr Delay (d2), s/veh	5.8	0.0	39.0	0.0	14.6	0.0	0.0	4.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	74.8	0.0	106.9	0.0	76.7	0.0	0.0	73.4
1st-Term Q (Q1), veh/ln	3.4	0.0	5.7	0.0	9.1	0.0	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	1.7	0.0	1.1	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.60	0.00	1.51	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	6.4	0.0	11.8	0.0	15.4	0.0	0.0	3.8
%ile Storage Ratio (RQ%)	0.81	0.00	1.04	0.00	0.98	0.00	0.00	0.54
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1003	0	813	0	1132	890	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	33.5	0.0	33.0	0.0	46.7	37.3	0.0
Cycle Q Clear Time (g_c), s	0.0	33.5	0.0	33.0	0.0	46.7	37.3	0.0
Lane Grp Cap (c), veh/h	0	1587	0	782	0	1276	910	0
V/C Ratio (X)	0.00	0.63	0.00	1.04	0.00	0.89	0.98	0.00
Avail Cap (c_a), veh/h	0	1587	0	782	0	1276	910	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	30.3	0.0	58.5	0.0	43.9	55.4	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	43.0	0.0	9.3	24.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.2	0.0	101.5	0.0	53.2	79.9	0.0
1st-Term Q (Q1), veh/ln	0.0	13.8	0.0	14.8	0.0	19.6	16.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	4.7	0.0	1.7	3.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.44	0.00	1.40	0.00	1.36	1.37	0.00
%ile Back of Q (95%), veh/ln	0.0	20.4	0.0	27.4	0.0	28.9	27.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	1.95	0.00	0.91	6.49	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	509	0	680	0	605	309	0
Grp Sat Flow (s), veh/h/ln	0	1726	0	1585	0	1818	1585	0
Q Serve Time (g_s), s	0.0	33.5	0.0	33.0	0.0	46.8	18.3	0.0
Cycle Q Clear Time (g_c), s	0.0	33.5	0.0	33.0	0.0	46.8	18.3	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	23.4	0.0	0.0	9.9	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	1.00	0.00	0.16	1.00	0.00
Lane Grp Cap (c), veh/h	0	805	0	596	0	682	510	0
V/C Ratio (X)	0.00	0.63	0.00	1.14	0.00	0.89	0.61	0.00
Avail Cap (c_a), veh/h	0	805	0	596	0	682	510	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	30.3	0.0	46.8	0.0	43.9	24.5	0.0
Incr Delay (d2), s/veh	0.0	3.8	0.0	82.6	0.0	15.9	2.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.1	0.0	129.4	0.0	59.8	26.6	0.0
1st-Term Q (Q1), veh/ln	0.0	14.0	0.0	22.0	0.0	21.0	7.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	13.7	0.0	3.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.43	0.00	1.38	0.00	1.33	1.61	0.00
%ile Back of Q (95%), veh/ln	0.0	21.1	0.0	49.1	0.0	32.1	11.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.00	3.50	0.00	1.01	2.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.4
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	992	151	139	1289	35	0	0	118	0	0	88
Future Vol, veh/h	2	992	151	139	1289	35	0	0	118	0	0	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1078	164	151	1401	38	0	0	128	0	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1439	0	0	1242	0	0	-	-	621	-	-	720
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	239	-	-	556	-	-	0	0	430	0	0	318
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	239	-	-	556	-	-	-	-	430	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	16.9	21.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	239	-	-	556	-	-	318
HCM Lane V/C Ratio	0.298	0.009	-	-	0.272	-	-	0.301
HCM Control Delay (s)	16.9	20.2	-	-	13.9	-	-	21.1
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	1.1	-	-	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	875	282	451	1027	399	245	108	303	255	125	32
Future Volume (veh/h)	26	875	282	451	1027	399	245	108	303	255	125	32
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	951	307	490	1116	434	192	221	329	206	235	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	2389	1066	324	2389	1066	210	426	361	187	426	361
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	333	3554	1585	441	3554	1585	1109	1870	1585	858	1870	1585
Grp Volume(v), veh/h	28	951	307	490	1116	434	192	221	329	206	235	35
Grp Sat Flow(s),veh/h/ln	333	1777	1585	441	1777	1585	1109	1870	1585	858	1870	1585
Q Serve(g_s), s	3.9	10.8	7.1	49.7	13.5	11.1	10.5	9.3	18.2	11.2	10.0	1.6
Cycle Q Clear(g_c), s	17.4	10.8	7.1	60.5	13.5	11.1	20.5	9.3	18.2	20.5	10.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	2389	1066	324	2389	1066	210	426	361	187	426	361
V/C Ratio(X)	0.11	0.40	0.29	1.51	0.47	0.41	0.92	0.52	0.91	1.10	0.55	0.10
Avail Cap(c_a), veh/h	254	2389	1066	324	2389	1066	210	426	361	187	426	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	6.6	6.0	26.3	7.0	6.7	41.5	30.4	33.9	41.8	30.7	27.4
Incr Delay (d2), s/veh	0.2	0.1	0.1	246.5	0.1	0.3	43.6	4.5	29.5	96.5	5.1	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(95%),veh/ln	0.5	6.2	3.7	49.4	7.8	5.8	11.0	8.2	14.9	14.8	8.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	6.7	6.1	272.8	7.2	6.9	85.0	34.9	63.3	138.3	35.8	28.0
LnGrp LOS	B	A	A	F	A	A	F	C	E	F	D	C
Approach Vol, veh/h		1286			2040			742			476	
Approach Delay, s/veh		6.7			70.9			60.5			79.6	
Approach LOS		A			E			E			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		60.5		20.5		60.5				
Max Q Clear Time (g_c+I1), s		22.5		19.4		22.5		62.5				
Green Ext Time (p_c), s		0.0		11.1		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			51.9
HCM 6th LOS			D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	875	282	451	1027	399	245	108	303	255	125	32
Future Volume (veh/h)	26	875	282	451	1027	399	245	108	303	255	125	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	951	307	490	1116	434	192	221	329	206	235	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	254	2389	1066	324	2389	1066	210	426	361	187	426	361
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
Prop Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.4	6.7	6.1	272.8	7.2	6.9	85.0	34.9	63.3	138.3	35.8	28.0
Ln Grp LOS	B	A	A	F	A	A	F	C	E	F	D	C
Approach Vol, veh/h		1286			2040			742			476	
Approach Delay, s/veh		6.7			70.9			60.5			79.6	
Approach LOS		A			E			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		20.5		60.5		20.5		60.5
Max Allow Headway (MAH), s		4.5		5.1		5.2		6.0
Max Q Clear (g_c+I1), s		22.5		19.4		22.5		62.5
Green Ext Time (g_e), s		0.0		11.1		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.05		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1109		333		858		441
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	192	0	28	0	206	0	490
Grp Sat Flow (s), veh/h/ln	0	1109	0	333	0	858	0	441
Q Serve Time (g_s), s	0.0	10.5	0.0	3.9	0.0	11.2	0.0	49.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	17.4	0.0	20.5	0.0	60.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1109	0	333	0	858	0	441
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.5	0.0	60.5	0.0	20.5	0.0	60.5
Perm LT Serve Time (g_u), s	0.0	10.5	0.0	47.0	0.0	11.2	0.0	49.7
Perm LT Q Serve Time (g_ps), s	0.0	10.5	0.0	3.9	0.0	11.2	0.0	49.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	210	0	254	0	187	0	324
V/C Ratio (X)	0.00	0.92	0.00	0.11	0.00	1.10	0.00	1.51
Avail Cap (c_a), veh/h	0	210	0	254	0	187	0	324
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.5	0.0	11.2	0.0	41.8	0.0	26.3
Incr Delay (d2), s/veh	0.0	43.6	0.0	0.2	0.0	96.5	0.0	246.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	85.0	0.0	11.4	0.0	138.3	0.0	272.8
1st-Term Q (Q1), veh/ln	0.0	4.2	0.0	0.3	0.0	4.1	0.0	7.1
2nd-Term Q (Q2), veh/ln	0.0	2.5	0.0	0.0	0.0	5.0	0.0	22.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.63	0.00	1.80	0.00	1.62	0.00	1.68
%ile Back of Q (95%), veh/ln	0.0	11.0	0.0	0.5	0.0	14.8	0.0	49.4
%ile Storage Ratio (RQ%)	0.00	2.81	0.00	0.04	0.00	1.33	0.00	4.73
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	4.9	0.0	41.6
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	221	0	951	0	235	0	1116
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	9.3	0.0	10.8	0.0	10.0	0.0	13.5
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	10.8	0.0	10.0	0.0	13.5
Lane Grp Cap (c), veh/h	0	426	0	2389	0	426	0	2389
V/C Ratio (X)	0.00	0.52	0.00	0.40	0.00	0.55	0.00	0.47
Avail Cap (c_a), veh/h	0	426	0	2389	0	426	0	2389
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	30.4	0.0	6.6	0.0	30.7	0.0	7.0
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.1	0.0	5.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.9	0.0	6.7	0.0	35.8	0.0	7.2
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	3.4	0.0	4.4	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.76	0.00	1.80	0.00	1.73	0.00	1.79
%ile Back of Q (95%), veh/ln	0.0	8.2	0.0	6.2	0.0	8.7	0.0	7.8
%ile Storage Ratio (RQ%)	0.00	0.82	0.00	0.66	0.00	0.78	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	329	0	307	0	35	0	434
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	18.2	0.0	7.1	0.0	1.6	0.0	11.1
Cycle Q Clear Time (g_c), s	0.0	18.2	0.0	7.1	0.0	1.6	0.0	11.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	361	0	1066	0	361	0	1066
V/C Ratio (X)	0.00	0.91	0.00	0.29	0.00	0.10	0.00	0.41
Avail Cap (c_a), veh/h	0	361	0	1066	0	361	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.9	0.0	6.0	0.0	27.4	0.0	6.7
Incr Delay (d2), s/veh	0.0	29.5	0.0	0.1	0.0	0.5	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	63.3	0.0	6.1	0.0	28.0	0.0	6.9
1st-Term Q (Q1), veh/ln	0.0	6.8	0.0	2.0	0.0	0.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	3.0	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.52	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	14.9	0.0	3.7	0.0	1.2	0.0	5.8
%ile Storage Ratio (RQ%)	0.00	3.78	0.00	1.18	0.00	0.10	0.00	1.48
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		51.9
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	74	123	400	123	204	164	1624	285	80	2236	93
Future Volume (veh/h)	80	74	123	400	123	204	164	1624	285	80	2236	93
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	80	134	435	134	222	178	1765	310	87	2430	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	234	454	476	497	271	2201	1087	203	2661	110
Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6383	265
Grp Volume(v), veh/h	87	80	134	435	134	222	178	1765	310	87	1836	695
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1823
Q Serve(g_s), s	6.2	5.4	0.0	31.3	7.5	14.5	6.5	39.1	9.9	3.2	46.5	46.7
Cycle Q Clear(g_c), s	6.2	5.4	0.0	31.3	7.5	14.5	6.5	39.1	9.9	3.2	46.5	46.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	123	129	234	454	476	497	271	2201	1087	203	2012	760
V/C Ratio(X)	0.71	0.62	0.57	0.96	0.28	0.45	0.66	0.80	0.29	0.43	0.91	0.91
Avail Cap(c_a), veh/h	136	142	245	454	476	497	271	2201	1087	226	2012	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	58.8	51.6	47.8	38.9	35.6	58.2	32.1	8.0	59.1	35.7	35.7
Incr Delay (d2), s/veh	13.9	6.8	2.9	31.9	0.3	0.6	5.6	3.2	0.7	1.4	7.8	17.5
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(95%),veh/ln	5.9	5.1	7.7	24.8	6.3	9.7	5.5	23.2	11.3	2.6	26.6	32.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.1	65.6	54.5	79.7	39.2	36.3	63.8	35.3	8.6	60.5	43.5	53.2
LnGrp LOS	E	E	D	E	D	D	E	D	A	E	D	D
Approach Vol, veh/h		301			791			2253			2618	
Approach Delay, s/veh		62.8			60.6			33.9			46.6	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.8	61.9		39.2	16.1	59.6		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 55		33.1	9.3	* 54		9.9
Max Q Clear Time (g_c+I1), s	5.2	41.1		33.3	8.5	48.7		8.2
Green Ext Time (p_c), s	0.1	10.6		0.0	0.0	5.1		0.2

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	74	123	400	123	204	164	1624	285	80	2236	93
Future Volume (veh/h)	80	74	123	400	123	204	164	1624	285	80	2236	93
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	80	134	435	134	222	178	1765	310	87	2430	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	234	454	476	497	271	2201	1087	203	2661	110
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
Prop Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.1	65.6	54.5	79.7	39.2	36.3	63.8	35.3	8.6	60.5	43.5	53.2
Ln Grp LOS	E	E	D	E	D	D	E	D	A	E	D	D
Approach Vol, veh/h		301			791			2253			2618	
Approach Delay, s/veh		62.8			60.6			33.9			46.6	
Approach LOS		E			E			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	13.8	61.9	15.1	39.2	59.6	16.1		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 55	9.9	33.1	* 54	9.3		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+I1), s	5.2	41.1	8.2	33.3	48.7	8.5		
Green Ext Time (g_e), s	0.1	10.6	0.2	0.0	5.1	0.0		
Prob of Phs Call (p_c)	0.96	1.00	1.00	1.00	1.00	1.00		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	1.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6383			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	265			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	87	0	87	435	0	178	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	3.2	0.0	6.2	31.3	0.0	6.5	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	6.2	31.3	0.0	6.5	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	203	0	123	454	0	271	0	0
V/C Ratio (X)	0.43	0.00	0.71	0.96	0.00	0.66	0.00	0.00
Avail Cap (c_a), veh/h	226	0	136	454	0	271	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.1	0.0	59.2	47.8	0.0	58.2	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	13.9	31.9	0.0	5.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.5	0.0	73.1	79.7	0.0	63.8	0.0	0.0
1st-Term Q (Q1), veh/ln	1.4	0.0	2.8	13.8	0.0	2.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	4.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.39	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	2.6	0.0	5.9	24.8	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.33	0.00	3.00	9.68	0.00	2.15	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	1765	80	134	1836	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	39.1	5.4	7.5	46.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	39.1	5.4	7.5	46.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2201	129	476	2012	0	0	0
V/C Ratio (X)	0.00	0.80	0.62	0.28	0.91	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2201	142	476	2012	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	32.1	58.8	38.9	35.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.2	6.8	0.3	7.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.3	65.6	39.2	43.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	15.9	2.6	3.5	17.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.2	0.0	1.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	1.80	1.80	1.37	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	23.2	5.1	6.3	26.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.43	0.64	1.22	1.31	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	310	134	222	695	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1823	0	0	0
Q Serve Time (g_s), s	0.0	9.9	0.0	14.5	46.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.9	0.0	14.5	46.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	33.1	10.2	7.7	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.15	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1087	234	497	760	0	0	0
V/C Ratio (X)	0.00	0.29	0.57	0.45	0.91	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1087	245	497	760	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.0	51.6	35.6	35.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	2.9	0.6	17.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.6	54.5	36.3	53.2	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.8	4.1	5.7	20.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.2	0.1	3.7	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.62	1.79	1.68	1.33	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	11.3	7.7	9.7	32.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	2.88	3.89	1.87	1.59	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	374	480	104	111	211
Future Vol, veh/h	66	374	480	104	111	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	407	522	113	121	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	635	0	-	0	927	318
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	944	-	-	-	267	678
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	686	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	944	-	-	-	247	678
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	686	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	944	-	-	-	247	678
HCM Lane V/C Ratio	0.076	-	-	-	0.488	0.338
HCM Control Delay (s)	9.1	-	-	-	32.7	13
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	2.5	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	114	181	87	219	67	125	501	60	49	726	166
Future Volume (veh/h)	137	114	181	87	219	67	125	501	60	49	726	166
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	124	197	95	238	73	136	545	65	53	789	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	804	682	532	1159	347	219	745	631	242	1145	261
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1068	1870	1585	1059	2695	807	580	1870	1585	811	2874	656
Grp Volume(v), veh/h	149	124	197	95	155	156	136	545	65	53	488	481
Grp Sat Flow(s),veh/h/ln	1068	1870	1585	1059	1777	1725	580	1870	1585	811	1777	1752
Q Serve(g_s), s	6.1	2.4	4.9	3.6	3.3	3.4	10.2	14.8	1.5	3.6	13.7	13.7
Cycle Q Clear(g_c), s	9.5	2.4	4.9	6.0	3.3	3.4	23.9	14.8	1.5	18.4	13.7	13.7
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	519	804	682	532	764	742	219	745	631	242	708	698
V/C Ratio(X)	0.29	0.15	0.29	0.18	0.20	0.21	0.62	0.73	0.10	0.22	0.69	0.69
Avail Cap(c_a), veh/h	519	804	682	532	764	742	219	745	631	242	708	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	10.4	11.1	12.3	10.7	10.7	26.3	15.3	11.3	23.1	15.0	15.0
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.7	0.6	0.6	5.3	3.7	0.1	0.4	2.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	1.6	2.7	1.6	2.2	2.3	3.9	10.3	0.9	1.2	9.1	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	10.5	11.4	13.0	11.3	11.4	31.6	19.0	11.4	23.6	17.8	17.8
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		470			406			746			1022	
Approach Delay, s/veh		12.0			11.7			20.6			18.1	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		8.0		20.4		11.5		25.9				
Green Ext Time (p_c), s		2.1		2.1		1.8		0.0				

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	137	114	181	87	219	67	125	501	60	49	726	166
Future Volume (veh/h)	137	114	181	87	219	67	125	501	60	49	726	166
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	124	197	95	238	73	136	545	65	53	789	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	519	804	682	532	1159	347	219	745	631	242	1145	261
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.0	10.5	11.4	13.0	11.3	11.4	31.6	19.0	11.4	23.6	17.8	17.8
Ln Grp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		470			406			746			1022	
Approach Delay, s/veh		12.0			11.7			20.6			18.1	
Approach LOS		B			B			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.2		5.3		4.5		5.5
Max Q Clear (g_c+I1), s		8.0		20.4		11.5		25.9
Green Ext Time (g_e), s		2.1		2.1		1.8		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.03		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1059		811		1068		580
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2695		2874		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		807		656		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	95	0	53	0	149	0	136
Grp Sat Flow (s), veh/h/ln	0	1059	0	811	0	1068	0	580
Q Serve Time (g_s), s	0.0	3.6	0.0	3.6	0.0	6.1	0.0	10.2
Cycle Q Clear Time (g_c), s	0.0	6.0	0.0	18.4	0.0	9.5	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1059	0	811	0	1068	0	580
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	9.1	0.0	22.4	0.0	10.2
Perm LT Q Serve Time (g_ps), s	0.0	3.6	0.0	3.6	0.0	6.1	0.0	10.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	532	0	242	0	519	0	219
V/C Ratio (X)	0.00	0.18	0.00	0.22	0.00	0.29	0.00	0.62
Avail Cap (c_a), veh/h	0	532	0	242	0	519	0	219
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	23.1	0.0	13.7	0.0	26.3
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.4	0.0	0.3	0.0	5.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.0	0.0	23.6	0.0	14.0	0.0	31.6
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.6	0.0	1.3	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.6	0.0	1.2	0.0	2.4	0.0	3.9
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.32	0.00	0.46	0.00	0.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	155	0	488	0	124	0	545
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.3	0.0	13.7	0.0	2.4	0.0	14.8
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	13.7	0.0	2.4	0.0	14.8
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.20	0.00	0.69	0.00	0.15	0.00	0.73
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	15.0	0.0	10.4	0.0	15.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	2.8	0.0	0.1	0.0	3.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	0.0	17.8	0.0	10.5	0.0	19.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	4.8	0.0	0.9	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.8

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.71	0.00	1.80	0.00	1.66
%ile Back of Q (95%), veh/ln	0.0	2.2	0.0	9.1	0.0	1.6	0.0	10.3
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.45	0.00	0.10	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	156	0	481	0	197	0	65
Grp Sat Flow (s), veh/h/ln	0	1725	0	1752	0	1585	0	1585
Q Serve Time (g_s), s	0.0	3.4	0.0	13.7	0.0	4.9	0.0	1.5
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	13.7	0.0	4.9	0.0	1.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.37	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	742	0	698	0	682	0	631
V/C Ratio (X)	0.00	0.21	0.00	0.69	0.00	0.29	0.00	0.10
Avail Cap (c_a), veh/h	0	742	0	698	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	15.0	0.0	11.1	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	2.9	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	17.8	0.0	11.4	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	4.7	0.0	1.5	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.71	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	2.3	0.0	9.1	0.0	2.7	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.44	0.00	0.17	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	753	459	120	618	201	726	1335	158	265	1079	142
Future Volume (veh/h)	77	753	459	120	618	201	726	1335	158	265	1079	142
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	818	499	130	672	218	789	1451	172	288	1173	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	877	773	183	772	500	832	2055	243	339	1371	180
Arrive On Green	0.08	0.25	0.25	0.05	0.22	0.22	0.24	0.44	0.44	0.10	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4627	548	3456	4567	599
Grp Volume(v), veh/h	84	818	499	130	672	218	789	1067	556	288	874	453
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1772	1728	1702	1762
Q Serve(g_s), s	3.4	33.8	35.3	5.6	27.4	11.5	33.7	38.1	38.1	12.3	36.3	36.3
Cycle Q Clear(g_c), s	3.4	33.8	35.3	5.6	27.4	11.5	33.7	38.1	38.1	12.3	36.3	36.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		0.34
Lane Grp Cap(c), veh/h	283	877	773	183	772	500	832	1512	787	339	1022	529
V/C Ratio(X)	0.30	0.93	0.65	0.71	0.87	0.44	0.95	0.71	0.71	0.85	0.86	0.86
Avail Cap(c_a), veh/h	283	877	773	187	877	547	848	1512	787	438	1022	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	55.3	28.8	69.9	56.7	21.6	56.0	33.8	33.8	66.5	49.4	49.4
Incr Delay (d2), s/veh	0.6	16.6	1.9	11.5	8.7	0.6	19.3	2.8	5.3	11.8	9.2	16.2
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(95%),veh/ln	2.8	23.9	19.9	5.0	19.2	7.9	23.7	23.0	24.4	10.0	23.5	25.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	71.8	30.6	81.4	65.3	22.2	75.3	36.6	39.1	78.3	58.6	65.6
LnGrp LOS	E	E	C	F	E	C	E	D	D	E	E	E
Approach Vol, veh/h		1401			1020			2412			1615	
Approach Delay, s/veh		56.8			58.2			49.8			64.1	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	72.4	13.9	43.0	42.3	50.8	18.3	38.6
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	* 8	37.0
Max Q Clear Time (g_c+I1), s	14.3	40.1	7.6	37.3	35.7	38.3	5.4	29.4
Green Ext Time (p_c), s	0.4	17.5	0.0	0.0	0.4	4.3	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	56.2
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	753	459	120	618	201	726	1335	158	265	1079	142
Future Volume (veh/h)	77	753	459	120	618	201	726	1335	158	265	1079	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	818	499	130	672	218	789	1451	172	288	1173	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	283	877	773	183	772	500	832	2055	243	339	1371	180
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
Prop Arrive On Green	0.08	0.25	0.25	0.05	0.22	0.22	0.24	0.44	0.44	0.10	0.30	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	65.4	71.8	30.6	81.4	65.3	22.2	75.3	36.6	39.1	78.3	58.6	65.6
Ln Grp LOS	E	E	C	F	E	C	E	D	D	E	E	E
Approach Vol, veh/h		1401			1020			2412			1615	
Approach Delay, s/veh		56.8			58.2			49.8			64.1	
Approach LOS		E			E			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	20.7	72.4	13.9	43.0	42.3	50.8	38.6	18.3
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	37.0	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.8	3.8	5.8	5.0	3.8
Max Q Clear (g_c+l1), s	14.3	40.1	7.6	37.3	35.7	38.3	29.4	5.4
Green Ext Time (g_e), s	0.4	17.5	0.0	0.0	0.4	4.3	3.2	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Prob of Max Out (p_x)	0.53	0.00	1.00	1.00	1.00	0.00	0.65	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4627		3554		4567	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		548		1585		599	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	288	0	130	0	789	0	0	84
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	12.3	0.0	5.6	0.0	33.7	0.0	0.0	3.4
Cycle Q Clear Time (g_c), s	12.3	0.0	5.6	0.0	33.7	0.0	0.0	3.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	339	0	183	0	832	0	0	283
V/C Ratio (X)	0.85	0.00	0.71	0.00	0.95	0.00	0.00	0.30
Avail Cap (c_a), veh/h	438	0	187	0	848	0	0	283
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	66.5	0.0	69.9	0.0	56.0	0.0	0.0	64.8
Incr Delay (d2), s/veh	11.8	0.0	11.5	0.0	19.3	0.0	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	78.3	0.0	81.4	0.0	75.3	0.0	0.0	65.4
1st-Term Q (Q1), veh/ln	5.4	0.0	2.5	0.0	14.7	0.0	0.0	1.5
2nd-Term Q (Q2), veh/ln	0.6	0.0	0.3	0.0	2.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.67	0.00	1.80	0.00	1.40	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	10.0	0.0	5.0	0.0	23.7	0.0	0.0	2.8
%ile Storage Ratio (RQ%)	1.27	0.00	0.44	0.00	1.50	0.00	0.00	0.40
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1067	0	818	0	874	672	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	38.1	0.0	33.8	0.0	36.3	27.4	0.0
Cycle Q Clear Time (g_c), s	0.0	38.1	0.0	33.8	0.0	36.3	27.4	0.0
Lane Grp Cap (c), veh/h	0	1512	0	877	0	1022	772	0
V/C Ratio (X)	0.00	0.71	0.00	0.93	0.00	0.86	0.87	0.00
Avail Cap (c_a), veh/h	0	1512	0	877	0	1022	877	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	0.0	55.3	0.0	49.4	56.7	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	16.6	0.0	9.2	8.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.6	0.0	71.8	0.0	58.6	65.3	0.0
1st-Term Q (Q1), veh/ln	0.0	15.8	0.0	15.1	0.0	15.4	12.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	2.0	0.0	1.3	0.9	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.41	0.00	1.40	0.00	1.40	1.45	0.00
%ile Back of Q (95%), veh/ln	0.0	23.0	0.0	23.9	0.0	23.5	19.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	1.70	0.00	0.74	4.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	556	0	499	0	453	218	0
Grp Sat Flow (s), veh/h/ln	0	1772	0	1585	0	1762	1585	0
Q Serve Time (g_s), s	0.0	38.1	0.0	35.3	0.0	36.3	11.5	0.0
Cycle Q Clear Time (g_c), s	0.0	38.1	0.0	35.3	0.0	36.3	11.5	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	36.1	0.0	0.0	14.7	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.34	1.00	0.00
Lane Grp Cap (c), veh/h	0	787	0	773	0	529	500	0
V/C Ratio (X)	0.00	0.71	0.00	0.65	0.00	0.86	0.44	0.00
Avail Cap (c_a), veh/h	0	787	0	773	0	529	547	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	0.0	28.8	0.0	49.4	21.6	0.0
Incr Delay (d2), s/veh	0.0	5.3	0.0	1.9	0.0	16.2	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.1	0.0	30.6	0.0	65.6	22.2	0.0
1st-Term Q (Q1), veh/ln	0.0	16.4	0.0	13.4	0.0	16.0	4.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	0.4	0.0	2.4	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	0.00	1.44	0.00	1.38	1.78	0.00
%ile Back of Q (95%), veh/ln	0.0	24.4	0.0	19.9	0.0	25.4	7.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	1.42	0.00	0.80	1.89	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	56.2
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1110	82	45	908	86	0	0	114	0	0	28
Future Vol, veh/h	9	1110	82	45	908	86	0	0	114	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1207	89	49	987	93	0	0	124	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1080	0	0	1296	0	0	-	-	648	-	-	540
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	358	-	-	531	-	-	0	0	413	0	0	416
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	358	-	-	531	-	-	-	-	413	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	17.4	14.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	413	358	-	-	531	-	-	416
HCM Lane V/C Ratio	0.3	0.027	-	-	0.092	-	-	0.073
HCM Control Delay (s)	17.4	15.3	-	-	12.5	-	-	14.3
HCM Lane LOS	C	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.3	-	-	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	923	154	265	675	291	266	129	461	106	66	44
Future Volume (veh/h)	28	923	154	265	675	291	266	129	461	106	66	44
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1003	167	288	734	316	214	244	501	94	102	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	2270	1013	318	2270	1013	350	488	414	188	488	414
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	537	3554	1585	480	3554	1585	1237	1870	1585	715	1870	1585
Grp Volume(v), veh/h	30	1003	167	288	734	316	214	244	501	94	102	48
Grp Sat Flow(s),veh/h/ln	537	1777	1585	480	1777	1585	1237	1870	1585	715	1870	1585
Q Serve(g_s), s	2.4	12.8	3.8	44.7	8.5	8.1	14.7	10.0	23.5	11.6	3.8	2.1
Cycle Q Clear(g_c), s	10.9	12.8	3.8	57.5	8.5	8.1	18.5	10.0	23.5	21.5	3.8	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	2270	1013	318	2270	1013	350	488	414	188	488	414
V/C Ratio(X)	0.08	0.44	0.16	0.90	0.32	0.31	0.61	0.50	1.21	0.50	0.21	0.12
Avail Cap(c_a), veh/h	373	2270	1013	318	2270	1013	350	488	414	188	488	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	8.2	6.6	26.5	7.4	7.3	33.2	28.3	33.3	37.4	26.0	25.3
Incr Delay (d2), s/veh	0.1	0.1	0.1	27.7	0.1	0.2	7.7	3.6	115.3	9.3	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	7.7	2.1	13.7	5.1	4.4	8.8	8.5	32.9	4.4	3.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	8.3	6.6	54.2	7.5	7.5	41.0	31.9	148.5	46.7	27.0	25.9
LnGrp LOS	A	A	A	D	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1200			1338			959			244	
Approach Delay, s/veh		8.1			17.5			94.8			34.3	
Approach LOS		A			B			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		23.5		57.5		23.5		57.5
Max Q Clear Time (g_c+I1), s		25.5		14.8		23.5		59.5
Green Ext Time (p_c), s		0.0		10.7		0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	923	154	265	675	291	266	129	461	106	66	44
Future Volume (veh/h)	28	923	154	265	675	291	266	129	461	106	66	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1003	167	288	734	316	214	244	501	94	102	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	373	2270	1013	318	2270	1013	350	488	414	188	488	414
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
Prop Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.0	8.3	6.6	54.2	7.5	7.5	41.0	31.9	148.5	46.7	27.0	25.9
Ln Grp LOS	A	A	A	D	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1200			1338			959			244	
Approach Delay, s/veh		8.1			17.5			94.8			34.3	
Approach LOS		A			B			F			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		23.5		57.5		23.5		57.5
Max Allow Headway (MAH), s		4.4		5.1		5.4		5.7
Max Q Clear (g_c+I1), s		25.5		14.8		23.5		59.5
Green Ext Time (g_e), s		0.0		10.7		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.03		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1237		537		715		480
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	214	0	30	0	94	0	288
Grp Sat Flow (s), veh/h/ln	0	1237	0	537	0	715	0	480
Q Serve Time (g_s), s	0.0	14.7	0.0	2.4	0.0	11.6	0.0	44.7
Cycle Q Clear Time (g_c), s	0.0	18.5	0.0	10.9	0.0	21.5	0.0	57.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1237	0	537	0	715	0	480
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.5	0.0	57.5	0.0	23.5	0.0	57.5
Perm LT Serve Time (g_u), s	0.0	19.7	0.0	49.0	0.0	13.5	0.0	44.7
Perm LT Q Serve Time (g_ps), s	0.0	14.7	0.0	2.4	0.0	11.6	0.0	44.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	350	0	373	0	188	0	318
V/C Ratio (X)	0.00	0.61	0.00	0.08	0.00	0.50	0.00	0.90
Avail Cap (c_a), veh/h	0	350	0	373	0	188	0	318
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.2	0.0	9.9	0.0	37.4	0.0	26.5
Incr Delay (d2), s/veh	0.0	7.7	0.0	0.1	0.0	9.3	0.0	27.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.0	0.0	10.0	0.0	46.7	0.0	54.2
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	0.3	0.0	2.0	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	2.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.73	0.00	1.80	0.00	1.80	0.00	1.55
%ile Back of Q (95%), veh/ln	0.0	8.8	0.0	0.5	0.0	4.4	0.0	13.7
%ile Storage Ratio (RQ%)	0.00	2.22	0.00	0.04	0.00	0.40	0.00	1.31
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	244	0	1003	0	102	0	734
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	10.0	0.0	12.8	0.0	3.8	0.0	8.5
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	12.8	0.0	3.8	0.0	8.5
Lane Grp Cap (c), veh/h	0	488	0	2270	0	488	0	2270
V/C Ratio (X)	0.00	0.50	0.00	0.44	0.00	0.21	0.00	0.32
Avail Cap (c_a), veh/h	0	488	0	2270	0	488	0	2270
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.3	0.0	8.2	0.0	26.0	0.0	7.4
Incr Delay (d2), s/veh	0.0	3.6	0.0	0.1	0.0	1.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.9	0.0	8.3	0.0	27.0	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	4.3	0.0	1.7	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.74	0.00	1.79	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	8.5	0.0	7.7	0.0	3.3	0.0	5.1
%ile Storage Ratio (RQ%)	0.00	0.85	0.00	0.81	0.00	0.29	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	167	0	48	0	316
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.5	0.0	3.8	0.0	2.1	0.0	8.1
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	3.8	0.0	2.1	0.0	8.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	414	0	1013	0	414	0	1013
V/C Ratio (X)	0.00	1.21	0.00	0.16	0.00	0.12	0.00	0.31
Avail Cap (c_a), veh/h	0	414	0	1013	0	414	0	1013
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.3	0.0	6.6	0.0	25.3	0.0	7.3
Incr Delay (d2), s/veh	0.0	115.3	0.0	0.1	0.0	0.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	148.5	0.0	6.6	0.0	25.9	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	1.1	0.0	0.8	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	13.3	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	32.9	0.0	2.1	0.0	1.5	0.0	4.4
%ile Storage Ratio (RQ%)	0.00	8.37	0.00	0.67	0.00	0.14	0.00	1.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	80	187	175	38	152	87	2062	219	113	1458	57
Future Volume (veh/h)	71	80	187	175	38	152	87	2062	219	113	1458	57
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	87	203	190	41	165	95	2241	238	123	1585	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	426	227	238	298	690	2841	1084	210	2708	106
Arrive On Green	0.07	0.07	0.07	0.13	0.13	0.13	0.20	0.56	0.56	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6401	250
Grp Volume(v), veh/h	77	87	203	190	41	165	95	2241	238	123	1195	452
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1825
Q Serve(g_s), s	5.5	5.9	0.0	13.5	2.5	12.3	2.9	45.1	7.3	4.5	24.7	24.7
Cycle Q Clear(g_c), s	5.5	5.9	0.0	13.5	2.5	12.3	2.9	45.1	7.3	4.5	24.7	24.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	123	129	426	227	238	298	690	2841	1084	210	2042	772
V/C Ratio(X)	0.62	0.67	0.48	0.84	0.17	0.55	0.14	0.79	0.22	0.59	0.59	0.59
Avail Cap(c_a), veh/h	123	129	426	356	374	413	690	2841	1084	226	2042	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	59.1	39.9	55.4	50.6	47.8	42.8	22.8	7.6	59.5	28.8	28.8
Incr Delay (d2), s/veh	9.4	12.7	0.8	9.7	0.3	1.6	0.1	2.3	0.5	3.4	1.2	3.2
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(95%),veh/ln	5.0	5.9	9.4	10.9	2.2	8.7	2.3	25.1	6.9	3.7	14.8	17.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	71.8	40.7	65.1	50.9	49.4	42.9	25.1	8.1	62.8	30.0	32.0
LnGrp LOS	E	E	D	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		367			396			2574			1770	
Approach Delay, s/veh		53.9			57.1			24.2			32.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	78.2		22.7	31.8	60.4		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 63		26.0	16.5	* 55		9.0
Max Q Clear Time (g_c+I1), s	6.5	47.1		15.5	4.9	26.7		7.9
Green Ext Time (p_c), s	0.1	13.5		1.0	0.2	14.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	80	187	175	38	152	87	2062	219	113	1458	57
Future Volume (veh/h)	71	80	187	175	38	152	87	2062	219	113	1458	57
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	87	203	190	41	165	95	2241	238	123	1585	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	426	227	238	298	690	2841	1084	210	2708	106
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
Prop Arrive On Green	0.07	0.07	0.07	0.13	0.13	0.13	0.20	0.56	0.56	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.3	71.8	40.7	65.1	50.9	49.4	42.9	25.1	8.1	62.8	30.0	32.0
Ln Grp LOS	E	E	D	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		367			396			2574			1770	
Approach Delay, s/veh		53.9			57.1			24.2			32.8	
Approach LOS		D			E			C			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.0	78.2	15.1	22.7	60.4	31.8		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 63	9.0	26.0	* 55	16.5		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+l1), s	6.5	47.1	7.9	15.5	26.7	4.9		
Green Ext Time (g_e), s	0.1	13.5	0.2	1.0	14.3	0.2		
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	0.97		
Prob of Max Out (p_x)	1.00	0.00	1.00	0.05	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6401			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	250			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	123	0	77	190	0	95	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	4.5	0.0	5.5	13.5	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	4.5	0.0	5.5	13.5	0.0	2.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	210	0	123	227	0	690	0	0
V/C Ratio (X)	0.59	0.00	0.62	0.84	0.00	0.14	0.00	0.00
Avail Cap (c_a), veh/h	226	0	123	356	0	690	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.5	0.0	58.9	55.4	0.0	42.8	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	9.4	9.7	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	62.8	0.0	68.3	65.1	0.0	42.9	0.0	0.0
1st-Term Q (Q1), veh/ln	2.0	0.0	2.5	6.1	0.0	1.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.63	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	3.7	0.0	5.0	10.9	0.0	2.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.47	0.00	2.56	4.28	0.00	0.90	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	2241	87	41	1195	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	45.1	5.9	2.5	24.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	45.1	5.9	2.5	24.7	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2841	129	238	2042	0	0	0
V/C Ratio (X)	0.00	0.79	0.67	0.17	0.59	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2841	129	374	2042	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	22.8	59.1	50.6	28.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.3	12.7	0.3	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.1	71.8	50.9	30.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	17.5	2.8	1.2	9.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.5	0.0	0.2	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	1.80	1.80	1.53	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	25.1	5.9	2.2	14.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.54	0.75	0.43	0.73	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	238	203	165	452	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1825	0	0	0
Q Serve Time (g_s), s	0.0	7.3	0.0	12.3	24.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	12.3	24.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	16.6	25.9	7.9	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.14	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1084	426	298	772	0	0	0
V/C Ratio (X)	0.00	0.22	0.48	0.55	0.59	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1084	426	413	772	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.6	39.9	47.8	28.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.8	1.6	3.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.1	40.7	49.4	32.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.7	5.5	4.9	10.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.1	0.7	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.69	1.73	1.48	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	6.9	9.4	8.7	17.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.74	4.80	1.68	0.84	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		31.9						
HCM 6th LOS		C						

Notes

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

Intersection						
Int Delay, s/veh	3.3					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	98	317	256	75	60	108
Future Vol, veh/h	98	317	256	75	60	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	107	345	278	82	65	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	360	0	-	0	706	180
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	387	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1195	-	-	-	370	832
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	656	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1195	-	-	-	337	832
Mov Cap-2 Maneuver	-	-	-	-	337	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1195	-	-	-	337	832
HCM Lane V/C Ratio	0.089	-	-	-	0.194	0.141
HCM Control Delay (s)	8.3	-	-	-	18.2	10
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.7	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	105	122	70	82	53	107	682	57	22	399	57
Future Volume (veh/h)	87	105	122	70	82	53	107	682	57	22	399	57
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	114	133	76	89	58	116	741	62	24	434	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	620	804	682	565	916	553	391	745	631	122	1244	177
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1241	1870	1585	1133	2131	1285	901	1870	1585	678	3124	444
Grp Volume(v), veh/h	95	114	133	76	73	74	116	741	62	24	246	250
Grp Sat Flow(s),veh/h/ln	1241	1870	1585	1133	1777	1639	901	1870	1585	678	1777	1791
Q Serve(g_s), s	3.0	2.2	3.1	2.6	1.5	1.6	6.2	23.7	1.5	0.2	5.8	5.9
Cycle Q Clear(g_c), s	4.6	2.2	3.1	4.8	1.5	1.6	12.1	23.7	1.5	23.9	5.8	5.9
Prop In Lane	1.00		1.00	1.00		0.78	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	620	804	682	565	764	705	391	745	631	122	708	713
V/C Ratio(X)	0.15	0.14	0.20	0.13	0.10	0.10	0.30	0.99	0.10	0.20	0.35	0.35
Avail Cap(c_a), veh/h	620	804	682	565	764	705	391	745	631	122	708	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	10.4	10.6	11.8	10.2	10.2	16.8	18.0	11.3	30.0	12.6	12.6
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.5	0.2	0.3	0.4	31.6	0.1	0.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	1.5	1.8	1.2	1.0	1.0	2.2	21.7	0.8	0.6	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	10.5	10.8	12.3	10.4	10.5	17.3	49.5	11.4	30.8	12.9	12.9
LnGrp LOS	B	B	B	B	B	B	B	D	B	C	B	B
Approach Vol, veh/h		342			223			919			520	
Approach Delay, s/veh		10.9			11.1			42.9			13.7	
Approach LOS		B			B			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9
Max Q Clear Time (g_c+I1), s		6.8		25.9		6.6		25.7
Green Ext Time (p_c), s		1.0		0.0		1.3		0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	105	122	70	82	53	107	682	57	22	399	57
Future Volume (veh/h)	87	105	122	70	82	53	107	682	57	22	399	57
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	114	133	76	89	58	116	741	62	24	434	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	620	804	682	565	916	553	391	745	631	122	1244	177
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	10.5	10.8	12.3	10.4	10.5	17.3	49.5	11.4	30.8	12.9	12.9
Ln Grp LOS	B	B	B	B	B	B	B	D	B	C	B	B
Approach Vol, veh/h		342			223			919			520	
Approach Delay, s/veh		10.9			11.1			42.9			13.7	
Approach LOS		B			B			D			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.0		5.3		4.5		5.2
Max Q Clear (g_c+I1), s		6.8		25.9		6.6		25.7
Green Ext Time (g_e), s		1.0		0.0		1.3		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.00		1.00

	1	2	3	4	5	6	7	8
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1133		678		1241		901
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2131		3124		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1285		444		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	76	0	24	0	95	0	116
Grp Sat Flow (s), veh/h/ln	0	1133	0	678	0	1241	0	901
Q Serve Time (g_s), s	0.0	2.6	0.0	0.2	0.0	3.0	0.0	6.2
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	23.9	0.0	4.6	0.0	12.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1133	0	678	0	1241	0	901
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.6	0.0	0.2	0.0	24.2	0.0	18.0
Perm LT Q Serve Time (g_ps), s	0.0	2.6	0.0	0.2	0.0	3.0	0.0	6.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	565	0	122	0	620	0	391
V/C Ratio (X)	0.00	0.13	0.00	0.20	0.00	0.15	0.00	0.30
Avail Cap (c_a), veh/h	0	565	0	122	0	620	0	391
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.8	0.0	30.0	0.0	11.6	0.0	16.8
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.8	0.0	0.1	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
Control Delay (d), s/veh	0.0	12.3	0.0	30.8	0.0	11.7	0.0	17.3
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.3	0.0	0.7	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.2	0.0	0.6	0.0	1.3	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.17	0.00	0.25	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	73	0	246	0	114	0	741
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.5	0.0	5.8	0.0	2.2	0.0	23.7
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	5.8	0.0	2.2	0.0	23.7
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.10	0.00	0.35	0.00	0.14	0.00	0.99
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.6	0.0	10.4	0.0	18.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.3	0.0	0.1	0.0	31.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.4	0.0	12.9	0.0	10.5	0.0	49.5
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	2.0	0.0	0.8	0.0	8.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	6.5

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.42
%ile Back of Q (95%), veh/ln	0.0	1.0	0.0	3.8	0.0	1.5	0.0	21.7
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.18	0.00	0.09	0.00	1.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	74	0	250	0	133	0	62
Grp Sat Flow (s), veh/h/ln	0	1639	0	1791	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.6	0.0	5.9	0.0	3.1	0.0	1.5
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	5.9	0.0	3.1	0.0	1.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.78	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	705	0	713	0	682	0	631
V/C Ratio (X)	0.00	0.10	0.00	0.35	0.00	0.20	0.00	0.10
Avail Cap (c_a), veh/h	0	705	0	713	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.6	0.0	10.6	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	12.9	0.0	10.8	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	2.1	0.0	1.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.0	0.0	3.8	0.0	1.8	0.0	0.8
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.19	0.00	0.11	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		26.3						
HCM 6th LOS		C						

Notes

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

Intersection						
Int Delay, s/veh	1.6					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	9	184	12	4	128
Future Vol, veh/h	45	9	184	12	4	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	10	200	13	4	139

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	354	207	0	0	213	0
Stage 1	207	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	644	833	-	-	1357	-
Stage 1	828	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	642	833	-	-	1357	-
Mov Cap-2 Maneuver	642	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	668	1357	-
HCM Lane V/C Ratio	-	-	0.088	0.003	-
HCM Control Delay (s)	-	-	10.9	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	750	626	274	819	284	444	1175	217	172	1509	89
Future Volume (veh/h)	97	750	626	274	819	284	444	1175	217	172	1509	89
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	815	680	298	890	309	483	1277	236	187	1640	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	782	596	311	910	514	538	2007	371	237	1849	109
Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.46	0.46	0.07	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4330	800	3456	4931	291
Grp Volume(v), veh/h	105	815	680	298	890	309	483	1004	509	187	1132	605
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1726	1728	1702	1818
Q Serve(g_s), s	4.4	33.0	33.0	12.9	37.3	18.2	20.6	33.7	33.7	8.0	46.7	46.8
Cycle Q Clear(g_c), s	4.4	33.0	33.0	12.9	37.3	18.2	20.6	33.7	33.7	8.0	46.7	46.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.16
Lane Grp Cap(c), veh/h	184	782	596	311	910	514	538	1578	800	237	1276	682
V/C Ratio(X)	0.57	1.04	1.14	0.96	0.98	0.60	0.90	0.64	0.64	0.79	0.89	0.89
Avail Cap(c_a), veh/h	184	782	596	311	910	514	620	1578	800	369	1276	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	58.5	46.8	68.0	55.4	24.3	62.1	30.6	30.6	68.8	43.9	43.9
Incr Delay (d2), s/veh	4.1	43.8	82.6	39.8	24.5	1.9	14.6	2.0	3.8	6.1	9.3	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	27.5	49.1	11.9	27.1	11.6	15.4	20.5	21.2	6.8	28.9	32.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	102.3	129.4	107.8	79.9	26.3	76.7	32.6	34.5	74.9	53.2	59.8
LnGrp LOS	E	F	F	F	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1600			1497			1996			1924	
Approach Delay, s/veh		111.9			74.4			43.7			57.4	
Approach LOS		F			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	75.3	19.4	39.0	29.6	62.0	14.0	44.4
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	* 8	38.4
Max Q Clear Time (g_c+I1), s	10.0	35.7	14.9	35.0	22.6	48.8	6.4	39.3
Green Ext Time (p_c), s	0.3	20.1	0.0	0.0	0.8	3.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	750	626	274	819	284	444	1175	217	172	1509	89
Future Volume (veh/h)	97	750	626	274	819	284	444	1175	217	172	1509	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	815	680	298	890	309	483	1277	236	187	1640	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	184	782	596	311	910	514	538	2007	371	237	1849	109
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
Prop Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.46	0.46	0.07	0.37	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.4	102.3	129.4	107.8	79.9	26.3	76.7	32.6	34.5	74.9	53.2	59.8
Ln Grp LOS	E	F	F	F	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1600			1497			1996			1924	
Approach Delay, s/veh		111.9			74.4			43.7			57.4	
Approach LOS		F			E			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	16.3	75.3	19.4	39.0	29.6	62.0	44.4	14.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	38.4	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.7	3.8	5.8	4.9	3.8
Max Q Clear (g_c+I1), s	10.0	35.7	14.9	35.0	22.6	48.8	39.3	6.4
Green Ext Time (g_e), s	0.3	20.1	0.0	0.0	0.8	3.4	0.0	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Prob of Max Out (p_x)	0.14	0.00	1.00	1.00	0.77	0.00	1.00	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4330		3554		4931	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		800		1585		291	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	187	0	298	0	483	0	0	105
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	8.0	0.0	12.9	0.0	20.6	0.0	0.0	4.4
Cycle Q Clear Time (g_c), s	8.0	0.0	12.9	0.0	20.6	0.0	0.0	4.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	237	0	311	0	538	0	0	184
V/C Ratio (X)	0.79	0.00	0.96	0.00	0.90	0.00	0.00	0.57
Avail Cap (c_a), veh/h	369	0	311	0	620	0	0	184
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	68.8	0.0	68.0	0.0	62.1	0.0	0.0	69.3
Incr Delay (d2), s/veh	6.1	0.0	39.8	0.0	14.6	0.0	0.0	4.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	74.9	0.0	107.8	0.0	76.7	0.0	0.0	73.4
1st-Term Q (Q1), veh/ln	3.6	0.0	5.7	0.0	9.1	0.0	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	1.7	0.0	1.1	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.60	0.00	1.51	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	6.8	0.0	11.9	0.0	15.4	0.0	0.0	3.8
%ile Storage Ratio (RQ%)	0.86	0.00	1.04	0.00	0.98	0.00	0.00	0.54
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1004	0	815	0	1132	890	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	33.7	0.0	33.0	0.0	46.7	37.3	0.0
Cycle Q Clear Time (g_c), s	0.0	33.7	0.0	33.0	0.0	46.7	37.3	0.0
Lane Grp Cap (c), veh/h	0	1578	0	782	0	1276	910	0
V/C Ratio (X)	0.00	0.64	0.00	1.04	0.00	0.89	0.98	0.00
Avail Cap (c_a), veh/h	0	1578	0	782	0	1276	910	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	30.6	0.0	58.5	0.0	43.9	55.4	0.0
Incr Delay (d2), s/veh	0.0	2.0	0.0	43.8	0.0	9.3	24.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.6	0.0	102.3	0.0	53.2	79.9	0.0
1st-Term Q (Q1), veh/ln	0.0	13.9	0.0	14.8	0.0	19.6	16.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	4.8	0.0	1.7	3.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.43	0.00	1.40	0.00	1.36	1.37	0.00
%ile Back of Q (95%), veh/ln	0.0	20.5	0.0	27.5	0.0	28.9	27.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	1.96	0.00	0.91	6.49	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	509	0	680	0	605	309	0
Grp Sat Flow (s), veh/h/ln	0	1726	0	1585	0	1818	1585	0
Q Serve Time (g_s), s	0.0	33.7	0.0	33.0	0.0	46.8	18.2	0.0
Cycle Q Clear Time (g_c), s	0.0	33.7	0.0	33.0	0.0	46.8	18.2	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	23.4	0.0	0.0	10.3	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	1.00	0.00	0.16	1.00	0.00
Lane Grp Cap (c), veh/h	0	800	0	596	0	682	514	0
V/C Ratio (X)	0.00	0.64	0.00	1.14	0.00	0.89	0.60	0.00
Avail Cap (c_a), veh/h	0	800	0	596	0	682	514	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	30.6	0.0	46.8	0.0	43.9	24.3	0.0
Incr Delay (d2), s/veh	0.0	3.8	0.0	82.6	0.0	15.9	1.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.5	0.0	129.4	0.0	59.8	26.3	0.0
1st-Term Q (Q1), veh/ln	0.0	14.1	0.0	22.0	0.0	21.0	6.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	13.7	0.0	3.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.42	0.00	1.38	0.00	1.33	1.61	0.00
%ile Back of Q (95%), veh/ln	0.0	21.2	0.0	49.1	0.0	32.1	11.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.00	3.50	0.00	1.01	2.78	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		69.6
HCM 6th LOS		E

Notes

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

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	992	160	139	1290	35	0	0	118	0	0	88
Future Vol, veh/h	2	992	160	139	1290	35	0	0	118	0	0	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1078	174	151	1402	38	0	0	128	0	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1440	0	0	1252	0	0	-	-	626	-	-	720
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	239	-	-	552	-	-	0	0	427	0	0	318
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	239	-	-	552	-	-	-	-	427	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	17	21.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	239	-	-	552	-	-	318
HCM Lane V/C Ratio	0.3	0.009	-	-	0.274	-	-	0.301
HCM Control Delay (s)	17	20.2	-	-	14	-	-	21.1
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	1.1	-	-	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	875	282	457	1027	399	245	108	303	255	125	33
Future Volume (veh/h)	26	875	282	457	1027	399	245	108	303	255	125	33
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	951	307	497	1116	434	192	221	329	206	235	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	2389	1066	324	2389	1066	209	426	361	187	426	361
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	333	3554	1585	441	3554	1585	1108	1870	1585	858	1870	1585
Grp Volume(v), veh/h	28	951	307	497	1116	434	192	221	329	206	235	36
Grp Sat Flow(s),veh/h/ln	333	1777	1585	441	1777	1585	1108	1870	1585	858	1870	1585
Q Serve(g_s), s	3.9	10.8	7.1	49.7	13.5	11.1	10.5	9.3	18.2	11.2	10.0	1.6
Cycle Q Clear(g_c), s	17.4	10.8	7.1	60.5	13.5	11.1	20.5	9.3	18.2	20.5	10.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	2389	1066	324	2389	1066	209	426	361	187	426	361
V/C Ratio(X)	0.11	0.40	0.29	1.54	0.47	0.41	0.92	0.52	0.91	1.10	0.55	0.10
Avail Cap(c_a), veh/h	254	2389	1066	324	2389	1066	209	426	361	187	426	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	6.6	6.0	26.3	7.0	6.7	41.5	30.4	33.9	41.8	30.7	27.5
Incr Delay (d2), s/veh	0.2	0.1	0.1	255.9	0.1	0.3	43.7	4.5	29.5	96.5	5.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	6.2	3.7	50.9	7.8	5.8	11.1	8.2	14.9	14.8	8.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	6.7	6.1	282.2	7.2	6.9	85.1	34.9	63.3	138.3	35.8	28.0
LnGrp LOS	B	A	A	F	A	A	F	C	E	F	D	C
Approach Vol, veh/h		1286			2047			742			477	
Approach Delay, s/veh		6.7			73.9			60.5			79.4	
Approach LOS		A			E			E			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		60.5		20.5		60.5				
Max Q Clear Time (g_c+I1), s		22.5		19.4		22.5		62.5				
Green Ext Time (p_c), s		0.0		11.1		0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		53.3
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	875	282	457	1027	399	245	108	303	255	125	33
Future Volume (veh/h)	26	875	282	457	1027	399	245	108	303	255	125	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	951	307	497	1116	434	192	221	329	206	235	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	254	2389	1066	324	2389	1066	209	426	361	187	426	361
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
Prop Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.4	6.7	6.1	282.2	7.2	6.9	85.1	34.9	63.3	138.3	35.8	28.0
Ln Grp LOS	B	A	A	F	A	A	F	C	E	F	D	C
Approach Vol, veh/h		1286			2047			742			477	
Approach Delay, s/veh		6.7			73.9			60.5			79.4	
Approach LOS		A			E			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		20.5		60.5		20.5		60.5
Max Allow Headway (MAH), s		4.5		5.1		5.2		6.0
Max Q Clear (g_c+I1), s		22.5		19.4		22.5		62.5
Green Ext Time (g_e), s		0.0		11.1		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.05		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1108		333		858		441
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	192	0	28	0	206	0	497
Grp Sat Flow (s), veh/h/ln	0	1108	0	333	0	858	0	441
Q Serve Time (g_s), s	0.0	10.5	0.0	3.9	0.0	11.2	0.0	49.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	17.4	0.0	20.5	0.0	60.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1108	0	333	0	858	0	441
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.5	0.0	60.5	0.0	20.5	0.0	60.5
Perm LT Serve Time (g_u), s	0.0	10.5	0.0	47.0	0.0	11.2	0.0	49.7
Perm LT Q Serve Time (g_ps), s	0.0	10.5	0.0	3.9	0.0	11.2	0.0	49.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	209	0	254	0	187	0	324
V/C Ratio (X)	0.00	0.92	0.00	0.11	0.00	1.10	0.00	1.54
Avail Cap (c_a), veh/h	0	209	0	254	0	187	0	324
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.5	0.0	11.2	0.0	41.8	0.0	26.3
Incr Delay (d2), s/veh	0.0	43.7	0.0	0.2	0.0	96.5	0.0	255.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	85.1	0.0	11.4	0.0	138.3	0.0	282.2
1st-Term Q (Q1), veh/ln	0.0	4.2	0.0	0.3	0.0	4.1	0.0	7.1
2nd-Term Q (Q2), veh/ln	0.0	2.5	0.0	0.0	0.0	5.0	0.0	23.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.63	0.00	1.80	0.00	1.62	0.00	1.69
%ile Back of Q (95%), veh/ln	0.0	11.1	0.0	0.5	0.0	14.8	0.0	50.9
%ile Storage Ratio (RQ%)	0.00	2.81	0.00	0.04	0.00	1.33	0.00	4.88
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	4.9	0.0	43.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	221	0	951	0	235	0	1116
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	9.3	0.0	10.8	0.0	10.0	0.0	13.5
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	10.8	0.0	10.0	0.0	13.5
Lane Grp Cap (c), veh/h	0	426	0	2389	0	426	0	2389
V/C Ratio (X)	0.00	0.52	0.00	0.40	0.00	0.55	0.00	0.47
Avail Cap (c_a), veh/h	0	426	0	2389	0	426	0	2389
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	30.4	0.0	6.6	0.0	30.7	0.0	7.0
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.1	0.0	5.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.9	0.0	6.7	0.0	35.8	0.0	7.2
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	3.4	0.0	4.4	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.76	0.00	1.80	0.00	1.73	0.00	1.79
%ile Back of Q (95%), veh/ln	0.0	8.2	0.0	6.2	0.0	8.7	0.0	7.8
%ile Storage Ratio (RQ%)	0.00	0.82	0.00	0.66	0.00	0.78	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	329	0	307	0	36	0	434
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	18.2	0.0	7.1	0.0	1.6	0.0	11.1
Cycle Q Clear Time (g_c), s	0.0	18.2	0.0	7.1	0.0	1.6	0.0	11.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	361	0	1066	0	361	0	1066
V/C Ratio (X)	0.00	0.91	0.00	0.29	0.00	0.10	0.00	0.41
Avail Cap (c_a), veh/h	0	361	0	1066	0	361	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.9	0.0	6.0	0.0	27.5	0.0	6.7
Incr Delay (d2), s/veh	0.0	29.5	0.0	0.1	0.0	0.6	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	63.3	0.0	6.1	0.0	28.0	0.0	6.9
1st-Term Q (Q1), veh/ln	0.0	6.8	0.0	2.0	0.0	0.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	3.0	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.52	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	14.9	0.0	3.7	0.0	1.2	0.0	5.8
%ile Storage Ratio (RQ%)	0.00	3.78	0.00	1.18	0.00	0.11	0.00	1.48
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	75	123	401	123	204	164	1624	297	81	2236	93
Future Volume (veh/h)	80	75	123	401	123	204	164	1624	297	81	2236	93
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	82	134	436	134	222	178	1765	323	88	2430	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	234	454	476	497	271	2201	1087	204	2661	110
Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6383	265
Grp Volume(v), veh/h	87	82	134	436	134	222	178	1765	323	88	1836	695
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1823
Q Serve(g_s), s	6.2	5.5	0.0	31.4	7.5	14.5	6.5	39.1	10.5	3.2	46.5	46.7
Cycle Q Clear(g_c), s	6.2	5.5	0.0	31.4	7.5	14.5	6.5	39.1	10.5	3.2	46.5	46.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	123	129	234	454	476	497	271	2201	1087	204	2012	760
V/C Ratio(X)	0.71	0.63	0.57	0.96	0.28	0.45	0.66	0.80	0.30	0.43	0.91	0.91
Avail Cap(c_a), veh/h	136	142	245	454	476	497	271	2201	1087	226	2012	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	58.9	51.6	47.8	38.9	35.6	58.2	32.2	8.1	59.1	35.7	35.7
Incr Delay (d2), s/veh	13.9	7.7	2.9	32.4	0.3	0.6	5.6	3.2	0.7	1.4	7.8	17.5
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(95%),veh/ln	5.9	5.2	7.7	24.9	6.3	9.7	5.5	23.2	11.8	2.6	26.6	32.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.1	66.6	54.5	80.2	39.2	36.2	63.8	35.4	8.8	60.5	43.5	53.2
LnGrp LOS	E	E	D	F	D	D	E	D	A	E	D	D
Approach Vol, veh/h		303			792			2266			2619	
Approach Delay, s/veh		63.1			60.9			33.8			46.6	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	61.9		39.2	16.1	59.6		15.1				
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1				
Max Green Setting (Gmax), s	* 8.5	* 55		33.1	9.3	* 54		9.9				
Max Q Clear Time (g_c+I1), s	5.2	41.1		33.4	8.5	48.7		8.2				
Green Ext Time (p_c), s	0.1	10.6		0.0	0.0	5.1		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		44.5
HCM 6th LOS		D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	75	123	401	123	204	164	1624	297	81	2236	93
Future Volume (veh/h)	80	75	123	401	123	204	164	1624	297	81	2236	93
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	82	134	436	134	222	178	1765	323	88	2430	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	234	454	476	497	271	2201	1087	204	2661	110
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
Prop Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.1	66.6	54.5	80.2	39.2	36.2	63.8	35.4	8.8	60.5	43.5	53.2
Ln Grp LOS	E	E	D	F	D	D	E	D	A	E	D	D
Approach Vol, veh/h		303			792			2266			2619	
Approach Delay, s/veh		63.1			60.9			33.8			46.6	
Approach LOS		E			E			C			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	13.8	61.9	15.1	39.2	59.6	16.1		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 55	9.9	33.1	* 54	9.3		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+l1), s	5.2	41.1	8.2	33.4	48.7	8.5		
Green Ext Time (g_e), s	0.1	10.6	0.2	0.0	5.1	0.0		
Prob of Phs Call (p_c)	0.96	1.00	1.00	1.00	1.00	1.00		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	1.00		

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		

Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6383			

Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	265			

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	88	0	87	436	0	178	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	3.2	0.0	6.2	31.4	0.0	6.5	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	6.2	31.4	0.0	6.5	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	204	0	123	454	0	271	0	0
V/C Ratio (X)	0.43	0.00	0.71	0.96	0.00	0.66	0.00	0.00
Avail Cap (c_a), veh/h	226	0	136	454	0	271	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.1	0.0	59.2	47.8	0.0	58.2	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	13.9	32.4	0.0	5.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.5	0.0	73.1	80.2	0.0	63.8	0.0	0.0
1st-Term Q (Q1), veh/ln	1.4	0.0	2.8	13.9	0.0	2.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	4.1	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.39	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	2.6	0.0	5.9	24.9	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.33	0.00	3.00	9.73	0.00	2.15	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	1765	82	134	1836	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	39.1	5.5	7.5	46.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	39.1	5.5	7.5	46.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2201	129	476	2012	0	0	0
V/C Ratio (X)	0.00	0.80	0.63	0.28	0.91	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2201	142	476	2012	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	32.2	58.9	38.9	35.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.2	7.7	0.3	7.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.4	66.6	39.2	43.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	15.9	2.6	3.5	17.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.3	0.0	1.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	1.80	1.80	1.37	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	23.2	5.2	6.3	26.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.43	0.67	1.22	1.31	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	323	134	222	695	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1823	0	0	0
Q Serve Time (g_s), s	0.0	10.5	0.0	14.5	46.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.5	0.0	14.5	46.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	33.1	10.2	7.7	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.15	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1087	234	497	760	0	0	0
V/C Ratio (X)	0.00	0.30	0.57	0.45	0.91	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1087	245	497	760	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.1	51.6	35.6	35.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	2.9	0.6	17.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.8	54.5	36.2	53.2	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.2	4.1	5.7	20.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.2	0.1	3.7	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.60	1.79	1.68	1.33	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	11.8	7.7	9.7	32.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.00	3.89	1.87	1.59	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	80	374	480	120	111	212
Future Vol, veh/h	80	374	480	120	111	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	407	522	130	121	230

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	652	0	-	0	965	326
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	378	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	930	-	-	-	253	670
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	930	-	-	-	229	670
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	930	-	-	-	229	670
HCM Lane V/C Ratio	0.094	-	-	-	0.527	0.344
HCM Control Delay (s)	9.3	-	-	-	37	13.2
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.3	-	-	-	2.8	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	115	181	87	227	67	127	501	60	49	726	172
Future Volume (veh/h)	137	115	181	87	227	67	127	501	60	49	726	172
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	125	197	95	247	73	138	545	65	53	789	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	804	682	532	1170	338	217	745	631	242	1135	269
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1060	1870	1585	1058	2720	786	576	1870	1585	811	2850	676
Grp Volume(v), veh/h	149	125	197	95	159	161	138	545	65	53	492	484
Grp Sat Flow(s),veh/h/ln	1060	1870	1585	1058	1777	1729	576	1870	1585	811	1777	1749
Q Serve(g_s), s	6.2	2.4	4.9	3.6	3.4	3.5	10.1	14.8	1.5	3.6	13.8	13.8
Cycle Q Clear(g_c), s	9.7	2.4	4.9	6.1	3.4	3.5	23.9	14.8	1.5	18.4	13.8	13.8
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	514	804	682	532	764	743	217	745	631	242	708	697
V/C Ratio(X)	0.29	0.16	0.29	0.18	0.21	0.22	0.64	0.73	0.10	0.22	0.69	0.69
Avail Cap(c_a), veh/h	514	804	682	532	764	743	217	745	631	242	708	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	10.4	11.1	12.3	10.7	10.7	26.5	15.3	11.3	23.1	15.0	15.0
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.7	0.6	0.7	6.0	3.7	0.1	0.4	3.0	3.0
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(95%),veh/ln	2.4	1.6	2.7	1.6	2.3	2.4	4.1	10.3	0.9	1.2	9.3	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	10.5	11.4	13.0	11.3	11.4	32.5	19.0	11.4	23.6	18.0	18.0
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		471			415			748			1029	
Approach Delay, s/veh		12.0			11.8			20.8			18.3	
Approach LOS		B			B			C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		8.1		20.4		11.7		25.9				
Green Ext Time (p_c), s		2.1		2.1		1.8		0.0				

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	115	181	87	227	67	127	501	60	49	726	172
Future Volume (veh/h)	137	115	181	87	227	67	127	501	60	49	726	172
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	125	197	95	247	73	138	545	65	53	789	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	514	804	682	532	1170	338	217	745	631	242	1135	269
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.1	10.5	11.4	13.0	11.3	11.4	32.5	19.0	11.4	23.6	18.0	18.0
Ln Grp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		471			415			748			1029	
Approach Delay, s/veh		12.0			11.8			20.8			18.3	
Approach LOS		B			B			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.2		5.3		4.5		5.5
Max Q Clear (g_c+I1), s		8.1		20.4		11.7		25.9
Green Ext Time (g_e), s		2.1		2.1		1.8		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.03		1.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1058		811		1060		576
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2720		2850		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		786		676		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	95	0	53	0	149	0	138
Grp Sat Flow (s), veh/h/ln	0	1058	0	811	0	1060	0	576
Q Serve Time (g_s), s	0.0	3.6	0.0	3.6	0.0	6.2	0.0	10.1
Cycle Q Clear Time (g_c), s	0.0	6.1	0.0	18.4	0.0	9.7	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1058	0	811	0	1060	0	576
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	9.1	0.0	22.3	0.0	10.1
Perm LT Q Serve Time (g_ps), s	0.0	3.6	0.0	3.6	0.0	6.2	0.0	10.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	532	0	242	0	514	0	217
V/C Ratio (X)	0.00	0.18	0.00	0.22	0.00	0.29	0.00	0.64
Avail Cap (c_a), veh/h	0	532	0	242	0	514	0	217
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	23.1	0.0	13.8	0.0	26.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.4	0.0	0.3	0.0	6.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.0	0.0	23.6	0.0	14.1	0.0	32.5
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.6	0.0	1.3	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.6	0.0	1.2	0.0	2.4	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.32	0.00	0.46	0.00	0.50
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	159	0	492	0	125	0	545
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.4	0.0	13.8	0.0	2.4	0.0	14.8
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	13.8	0.0	2.4	0.0	14.8
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.21	0.00	0.69	0.00	0.16	0.00	0.73
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	15.0	0.0	10.4	0.0	15.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	3.0	0.0	0.1	0.0	3.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	0.0	18.0	0.0	10.5	0.0	19.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	4.9	0.0	0.9	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.8

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.70	0.00	1.80	0.00	1.66
%ile Back of Q (95%), veh/ln	0.0	2.3	0.0	9.3	0.0	1.6	0.0	10.3
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.45	0.00	0.10	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	161	0	484	0	197	0	65
Grp Sat Flow (s), veh/h/ln	0	1729	0	1749	0	1585	0	1585
Q Serve Time (g_s), s	0.0	3.5	0.0	13.8	0.0	4.9	0.0	1.5
Cycle Q Clear Time (g_c), s	0.0	3.5	0.0	13.8	0.0	4.9	0.0	1.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.45	0.00	0.39	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	743	0	697	0	682	0	631
V/C Ratio (X)	0.00	0.22	0.00	0.69	0.00	0.29	0.00	0.10
Avail Cap (c_a), veh/h	0	743	0	697	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	15.0	0.0	11.1	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.7	0.0	3.0	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	18.0	0.0	11.4	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	4.8	0.0	1.5	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.71	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	2.4	0.0	9.2	0.0	2.7	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.45	0.00	0.17	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Notes

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

Intersection						
Int Delay, s/veh	0.8					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	170	34	11	322
Future Vol, veh/h	24	5	170	34	11	322
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	5	185	37	12	350

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	578	204	0	0	222	0
Stage 1	204	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	478	837	-	-	1347	-
Stage 1	830	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	473	837	-	-	1347	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	830	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	511	1347	-
HCM Lane V/C Ratio	-	-	0.062	0.009	-
HCM Control Delay (s)	-	-	12.5	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

HCM 6th Signalized Intersection Summary
1: Lincoln Boulevard & Washington Boulevard

09/15/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	819	499	127	654	235	810	1498	174	326	1170	153
Future Volume (veh/h)	87	819	499	127	654	235	810	1498	174	326	1170	153
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	890	542	138	711	255	880	1628	189	354	1272	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	877	780	184	803	542	848	1978	229	401	1351	176
Arrive On Green	0.07	0.25	0.25	0.05	0.23	0.23	0.25	0.43	0.43	0.12	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4640	537	3456	4571	596
Grp Volume(v), veh/h	95	890	542	138	711	255	880	1193	624	354	947	491
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1774	1728	1702	1763
Q Serve(g_s), s	3.9	37.0	37.0	5.9	29.0	13.4	36.8	46.5	46.7	15.1	40.8	40.8
Cycle Q Clear(g_c), s	3.9	37.0	37.0	5.9	29.0	13.4	36.8	46.5	46.7	15.1	40.8	40.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.34
Lane Grp Cap(c), veh/h	253	877	780	184	803	542	848	1451	756	401	1006	521
V/C Ratio(X)	0.38	1.02	0.70	0.75	0.89	0.47	1.04	0.82	0.83	0.88	0.94	0.94
Avail Cap(c_a), veh/h	253	877	780	187	877	575	848	1451	756	438	1006	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.3	56.5	29.4	70.0	56.2	20.5	56.6	38.0	38.1	65.3	51.6	51.6
Incr Delay (d2), s/veh	0.9	34.3	2.7	15.4	10.2	0.6	41.2	5.4	10.0	17.8	17.4	27.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	28.5	22.1	5.4	20.4	8.8	29.0	27.8	30.1	12.2	27.1	29.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	90.8	32.1	85.4	66.3	21.1	97.8	43.4	48.1	83.1	69.0	78.9
LnGrp LOS	E	F	C	F	E	C	F	D	D	F	E	E
Approach Vol, veh/h		1527			1104			2697			1792	
Approach Delay, s/veh		68.5			58.3			62.2			74.5	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.4	69.7	13.9	43.0	43.0	50.1	17.0	39.9				
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0				
Max Green Setting (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	* 8	37.0				
Max Q Clear Time (g_c+I1), s	17.1	48.7	7.9	39.0	38.8	42.8	5.9	31.0				
Green Ext Time (p_c), s	0.3	12.1	0.0	0.0	0.0	1.2	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay			66.0									
HCM 6th LOS			E									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	819	499	127	654	235	810	1498	174	326	1170	153
Future Volume (veh/h)	87	819	499	127	654	235	810	1498	174	326	1170	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	890	542	138	711	255	880	1628	189	354	1272	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	253	877	780	184	803	542	848	1978	229	401	1351	176
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
Prop Arrive On Green	0.07	0.25	0.25	0.05	0.23	0.23	0.25	0.43	0.43	0.12	0.30	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.2	90.8	32.1	85.4	66.3	21.1	97.8	43.4	48.1	83.1	69.0	78.9
Ln Grp LOS	E	F	C	F	E	C	F	D	D	F	E	E
Approach Vol, veh/h		1527			1104			2697			1792	
Approach Delay, s/veh		68.5			58.3			62.2			74.5	
Approach LOS		E			E			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	23.4	69.7	13.9	43.0	43.0	50.1	39.9	17.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	37.0	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.8	3.8	5.8	4.9	3.8
Max Q Clear (g_c+I1), s	17.1	48.7	7.9	39.0	38.8	42.8	31.0	5.9
Green Ext Time (g_e), s	0.3	12.1	0.0	0.0	0.0	1.2	2.9	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	0.86	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456

Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4640		3554		4571	3554	

Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		537		1585		596	1585	

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	354	0	138	0	880	0	0	95
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	15.1	0.0	5.9	0.0	36.8	0.0	0.0	3.9
Cycle Q Clear Time (g_c), s	15.1	0.0	5.9	0.0	36.8	0.0	0.0	3.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	401	0	184	0	848	0	0	253
V/C Ratio (X)	0.88	0.00	0.75	0.00	1.04	0.00	0.00	0.38
Avail Cap (c_a), veh/h	438	0	187	0	848	0	0	253
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	65.3	0.0	70.0	0.0	56.6	0.0	0.0	66.3
Incr Delay (d2), s/veh	17.8	0.0	15.4	0.0	41.2	0.0	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	83.1	0.0	85.4	0.0	97.8	0.0	0.0	67.2
1st-Term Q (Q1), veh/ln	6.7	0.0	2.6	0.0	16.0	0.0	0.0	1.7
2nd-Term Q (Q2), veh/ln	1.0	0.0	0.4	0.0	4.8	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.59	0.00	1.80	0.00	1.39	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	12.2	0.0	5.4	0.0	29.0	0.0	0.0	3.2
%ile Storage Ratio (RQ%)	1.55	0.00	0.48	0.00	1.84	0.00	0.00	0.46
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1193	0	890	0	947	711	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	46.5	0.0	37.0	0.0	40.8	29.0	0.0
Cycle Q Clear Time (g_c), s	0.0	46.5	0.0	37.0	0.0	40.8	29.0	0.0
Lane Grp Cap (c), veh/h	0	1451	0	877	0	1006	803	0
V/C Ratio (X)	0.00	0.82	0.00	1.02	0.00	0.94	0.89	0.00
Avail Cap (c_a), veh/h	0	1451	0	877	0	1006	877	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	38.0	0.0	56.5	0.0	51.6	56.2	0.0
Incr Delay (d2), s/veh	0.0	5.4	0.0	34.3	0.0	17.4	10.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.4	0.0	90.8	0.0	69.0	66.3	0.0
1st-Term Q (Q1), veh/ln	0.0	19.3	0.0	16.6	0.0	17.4	13.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	4.2	0.0	2.4	1.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.36	0.00	1.37	0.00	1.37	1.44	0.00
%ile Back of Q (95%), veh/ln	0.0	27.8	0.0	28.5	0.0	27.1	20.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.47	0.00	2.03	0.00	0.85	4.88	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	624	0	542	0	491	255	0
Grp Sat Flow (s), veh/h/ln	0	1774	0	1585	0	1763	1585	0
Q Serve Time (g_s), s	0.0	46.7	0.0	37.0	0.0	40.8	13.4	0.0
Cycle Q Clear Time (g_c), s	0.0	46.7	0.0	37.0	0.0	40.8	13.4	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	36.8	0.0	0.0	17.4	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	1.00	0.00	0.34	1.00	0.00
Lane Grp Cap (c), veh/h	0	756	0	780	0	521	542	0
V/C Ratio (X)	0.00	0.83	0.00	0.70	0.00	0.94	0.47	0.00
Avail Cap (c_a), veh/h	0	756	0	780	0	521	575	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	38.1	0.0	29.4	0.0	51.6	20.5	0.0
Incr Delay (d2), s/veh	0.0	10.0	0.0	2.7	0.0	27.3	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	48.1	0.0	32.1	0.0	78.9	21.1	0.0
1st-Term Q (Q1), veh/ln	0.0	20.2	0.0	15.0	0.0	18.0	5.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	0.6	0.0	4.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.35	0.00	1.41	0.00	1.35	1.73	0.00
%ile Back of Q (95%), veh/ln	0.0	30.1	0.0	22.1	0.0	29.6	8.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.51	0.00	1.57	0.00	0.93	2.11	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	66.0
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1245	89	47	985	89	0	0	134	0	0	29
Future Vol, veh/h	9	1245	89	47	985	89	0	0	134	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1353	97	51	1071	97	0	0	146	0	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1168	0	0	1450	0	0	-	-	725	-	-	584
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	324	-	-	463	-	-	0	0	368	0	0	390
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	324	-	-	463	-	-	-	-	368	-	-	390
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	21	15
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	368	324	-	-	463	-	-	390
HCM Lane V/C Ratio	0.396	0.03	-	-	0.11	-	-	0.081
HCM Control Delay (s)	21	16.5	-	-	13.7	-	-	15
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.8	0.1	-	-	0.4	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1011	213	328	720	303	298	134	531	110	69	47
Future Volume (veh/h)	31	1011	213	328	720	303	298	134	531	110	69	47
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	1099	232	357	783	329	235	271	577	98	106	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	2270	1013	276	2270	1013	346	488	414	168	488	414
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	507	3554	1585	411	3554	1585	1230	1870	1585	650	1870	1585
Grp Volume(v), veh/h	34	1099	232	357	783	329	235	271	577	98	106	51
Grp Sat Flow(s),veh/h/ln	507	1777	1585	411	1777	1585	1230	1870	1585	650	1870	1585
Q Serve(g_s), s	3.0	14.6	5.6	42.9	9.2	8.5	16.7	11.3	23.5	12.2	4.0	2.2
Cycle Q Clear(g_c), s	12.2	14.6	5.6	57.5	9.2	8.5	20.7	11.3	23.5	23.5	4.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	2270	1013	276	2270	1013	346	488	414	168	488	414
V/C Ratio(X)	0.10	0.48	0.23	1.29	0.34	0.32	0.68	0.55	1.39	0.58	0.22	0.12
Avail Cap(c_a), veh/h	352	2270	1013	276	2270	1013	346	488	414	168	488	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	8.5	6.9	29.7	7.5	7.4	34.1	28.7	33.3	39.5	26.0	25.4
Incr Delay (d2), s/veh	0.1	0.2	0.1	155.6	0.1	0.2	10.2	4.5	191.6	13.9	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	8.6	3.1	29.7	5.6	4.7	9.8	9.4	47.1	5.1	3.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	8.7	7.0	185.4	7.6	7.6	44.4	33.2	224.9	53.4	27.1	26.0
LnGrp LOS	B	A	A	F	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1365			1469			1083			255	
Approach Delay, s/veh		8.4			50.8			137.7			37.0	
Approach LOS		A			D			F			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.5		57.5		23.5		57.5				
Max Q Clear Time (g_c+I1), s		25.5		16.6		25.5		59.5				
Green Ext Time (p_c), s		0.0		12.5		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			58.7									
HCM 6th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1011	213	328	720	303	298	134	531	110	69	47
Future Volume (veh/h)	31	1011	213	328	720	303	298	134	531	110	69	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	1099	232	357	783	329	235	271	577	98	106	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	352	2270	1013	276	2270	1013	346	488	414	168	488	414
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
Prop Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.5	8.7	7.0	185.4	7.6	7.6	44.4	33.2	224.9	53.4	27.1	26.0
Ln Grp LOS	B	A	A	F	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1365			1469			1083			255	
Approach Delay, s/veh		8.4			50.8			137.7			37.0	
Approach LOS		A			D			F			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		23.5		57.5		23.5		57.5
Max Allow Headway (MAH), s		4.4		5.1		5.6		6.1
Max Q Clear (g_c+I1), s		25.5		16.6		25.5		59.5
Green Ext Time (g_e), s		0.0		12.5		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.07		0.00		1.00

Left-Turn Movement Data	1	2	3	4	5	6	7	8
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1230		507		650		411

Through Movement Data	1	2	3	4	5	6	7	8
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554

Right-Turn Movement Data	1	2	3	4	5	6	7	8
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data	1	2	3	4	5	6	7	8
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	235	0	34	0	98	0	357
Grp Sat Flow (s), veh/h/ln	0	1230	0	507	0	650	0	411
Q Serve Time (g_s), s	0.0	16.7	0.0	3.0	0.0	12.2	0.0	42.9
Cycle Q Clear Time (g_c), s	0.0	20.7	0.0	12.2	0.0	23.5	0.0	57.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1230	0	507	0	650	0	411
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.5	0.0	57.5	0.0	23.5	0.0	57.5
Perm LT Serve Time (g_u), s	0.0	19.5	0.0	48.3	0.0	12.2	0.0	42.9
Perm LT Q Serve Time (g_ps), s	0.0	16.7	0.0	3.0	0.0	12.2	0.0	42.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	346	0	352	0	168	0	276
V/C Ratio (X)	0.00	0.68	0.00	0.10	0.00	0.58	0.00	1.29
Avail Cap (c_a), veh/h	0	346	0	352	0	168	0	276
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.1	0.0	10.3	0.0	39.5	0.0	29.7
Incr Delay (d2), s/veh	0.0	10.2	0.0	0.1	0.0	13.9	0.0	155.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	44.4	0.0	10.5	0.0	53.4	0.0	185.4
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	0.3	0.0	2.2	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.6	0.0	11.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.68	0.00	1.80	0.00	1.80	0.00	1.64
%ile Back of Q (95%), veh/ln	0.0	9.8	0.0	0.6	0.0	5.1	0.0	29.7
%ile Storage Ratio (RQ%)	0.00	2.49	0.00	0.05	0.00	0.46	0.00	2.84
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	271	0	1099	0	106	0	783
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	11.3	0.0	14.6	0.0	4.0	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	14.6	0.0	4.0	0.0	9.2
Lane Grp Cap (c), veh/h	0	488	0	2270	0	488	0	2270
V/C Ratio (X)	0.00	0.55	0.00	0.48	0.00	0.22	0.00	0.34
Avail Cap (c_a), veh/h	0	488	0	2270	0	488	0	2270
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.7	0.0	8.5	0.0	26.0	0.0	7.5
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.2	0.0	1.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.2	0.0	8.7	0.0	27.1	0.0	7.6
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	4.9	0.0	1.7	0.0	3.1
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.1	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.70	0.00	1.74	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.4	0.0	8.6	0.0	3.4	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.95	0.00	0.90	0.00	0.31	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	577	0	232	0	51	0	329
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.5	0.0	5.6	0.0	2.2	0.0	8.5
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	5.6	0.0	2.2	0.0	8.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	414	0	1013	0	414	0	1013
V/C Ratio (X)	0.00	1.39	0.00	0.23	0.00	0.12	0.00	0.32
Avail Cap (c_a), veh/h	0	414	0	1013	0	414	0	1013
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.3	0.0	6.9	0.0	25.4	0.0	7.4
Incr Delay (d2), s/veh	0.0	191.6	0.0	0.1	0.0	0.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	224.9	0.0	7.0	0.0	26.0	0.0	7.6
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	1.7	0.0	0.8	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	22.0	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.53	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	47.1	0.0	3.1	0.0	1.6	0.0	4.7
%ile Storage Ratio (RQ%)	0.00	11.97	0.00	0.97	0.00	0.14	0.00	1.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	84	195	248	41	295	91	2181	276	167	1541	59
Future Volume (veh/h)	74	84	195	248	41	295	91	2181	276	167	1541	59
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	91	212	270	45	321	99	2371	300	182	1675	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	518	356	374	421	890	3115	1284	226	2711	104
Arrive On Green	0.07	0.07	0.07	0.20	0.20	0.20	0.26	0.61	0.61	0.07	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6407	245
Grp Volume(v), veh/h	80	91	212	270	45	321	99	2371	300	182	1261	478
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1826
Q Serve(g_s), s	5.7	6.2	0.0	18.6	2.6	24.3	2.8	44.0	5.8	6.8	26.5	26.6
Cycle Q Clear(g_c), s	5.7	6.2	0.0	18.6	2.6	24.3	2.8	44.0	5.8	6.8	26.5	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	123	129	518	356	374	421	890	3115	1284	226	2042	773
V/C Ratio(X)	0.65	0.70	0.41	0.76	0.12	0.76	0.11	0.76	0.23	0.81	0.62	0.62
Avail Cap(c_a), veh/h	123	129	518	356	374	421	890	3115	1284	226	2042	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	59.2	34.0	49.0	42.6	44.0	36.9	18.5	2.9	59.9	29.3	29.3
Incr Delay (d2), s/veh	11.3	15.7	0.5	9.1	0.1	8.1	0.1	1.8	0.4	18.9	1.4	3.7
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(95%),veh/ln	5.3	6.3	9.1	14.1	2.2	15.8	2.2	23.9	7.7	6.4	15.8	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	74.9	34.5	58.1	42.8	52.0	36.9	20.3	3.3	78.8	30.7	33.0
LnGrp LOS	E	E	C	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		383			636			2770			1921	
Approach Delay, s/veh		51.6			54.0			19.0			35.8	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	85.7		32.1	39.9	60.4		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 63		26.0	16.5	* 55		9.0
Max Q Clear Time (g_c+I1), s	8.8	46.0		26.3	4.8	28.6		8.2
Green Ext Time (p_c), s	0.0	14.9		0.0	0.2	14.7		0.1

Intersection Summary			
HCM 6th Ctrl Delay			30.8
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	84	195	248	41	295	91	2181	276	167	1541	59
Future Volume (veh/h)	74	84	195	248	41	295	91	2181	276	167	1541	59
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	91	212	270	45	321	99	2371	300	182	1675	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	518	356	374	421	890	3115	1284	226	2711	104
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
Prop Arrive On Green	0.07	0.07	0.07	0.20	0.20	0.20	0.26	0.61	0.61	0.07	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	70.3	74.9	34.5	58.1	42.8	52.0	36.9	20.3	3.3	78.8	30.7	33.0
Ln Grp LOS	E	E	C	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		383			636			2770			1921	
Approach Delay, s/veh		51.6			54.0			19.0			35.8	
Approach LOS		D			D			B			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.6	85.7	15.1	32.1	60.4	39.9		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 63	9.0	26.0	* 55	16.5		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.0	5.3	3.8		
Max Q Clear (g_c+l1), s	8.8	46.0	8.2	26.3	28.6	4.8		
Green Ext Time (g_e), s	0.0	14.9	0.1	0.0	14.7	0.2		
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	0.97		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6407			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	245			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	182	0	80	270	0	99	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	6.8	0.0	5.7	18.6	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	6.8	0.0	5.7	18.6	0.0	2.8	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	226	0	123	356	0	890	0	0
V/C Ratio (X)	0.81	0.00	0.65	0.76	0.00	0.11	0.00	0.00
Avail Cap (c_a), veh/h	226	0	123	356	0	890	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.9	0.0	59.0	49.0	0.0	36.9	0.0	0.0
Incr Delay (d2), s/veh	18.9	0.0	11.3	9.1	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	78.8	0.0	70.3	58.1	0.0	36.9	0.0	0.0
1st-Term Q (Q1), veh/ln	3.0	0.0	2.6	8.3	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.6	0.0	0.4	0.9	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.54	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	6.4	0.0	5.3	14.1	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.81	0.00	2.71	5.52	0.00	0.86	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	2371	91	45	1261	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	44.0	6.2	2.6	26.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	44.0	6.2	2.6	26.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3115	129	374	2042	0	0	0
V/C Ratio (X)	0.00	0.76	0.70	0.12	0.62	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	3115	129	374	2042	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	18.5	59.2	42.6	29.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	15.7	0.1	1.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.3	74.9	42.8	30.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	16.6	2.9	1.2	10.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.6	0.0	0.3	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	1.80	1.80	1.51	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	23.9	6.3	2.2	15.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.47	0.80	0.42	0.78	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	300	212	321	478	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1826	0	0	0
Q Serve Time (g_s), s	0.0	5.8	0.0	24.3	26.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	24.3	26.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	26.0	33.5	8.5	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.13	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1284	518	421	773	0	0	0
V/C Ratio (X)	0.00	0.23	0.41	0.76	0.62	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1284	518	421	773	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.9	34.0	44.0	29.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.5	8.1	3.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.3	34.5	52.0	33.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.2	5.2	9.5	11.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.1	0.9	0.8	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.79	1.71	1.51	1.47	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	7.7	9.1	15.8	18.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.96	4.63	3.06	0.90	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		30.8
HCM 6th LOS		C

Notes

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

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	107	421	419	84	85	164
Future Vol, veh/h	107	421	419	84	85	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	458	455	91	92	178

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	546	0	-	0	962	273
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	461	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1019	-	-	-	254	725
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1019	-	-	-	225	725
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	601	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1019	-	-	-	225	725
HCM Lane V/C Ratio	0.114	-	-	-	0.411	0.246
HCM Control Delay (s)	9	-	-	-	31.7	11.6
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.9	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	127	189	78	88	62	252	755	72	26	434	75
Future Volume (veh/h)	124	127	189	78	88	62	252	755	72	26	434	75
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	138	205	85	96	67	274	821	78	28	472	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	804	682	519	891	574	365	745	631	120	1207	209
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1223	1870	1585	1038	2072	1335	854	1870	1585	619	3030	523
Grp Volume(v), veh/h	135	138	205	85	81	82	274	821	78	28	276	278
Grp Sat Flow(s),veh/h/ln	1223	1870	1585	1038	1777	1630	854	1870	1585	619	1777	1776
Q Serve(g_s), s	4.5	2.7	5.1	3.3	1.6	1.8	17.2	23.9	1.9	0.0	6.6	6.7
Cycle Q Clear(g_c), s	6.3	2.7	5.1	6.0	1.6	1.8	23.9	23.9	1.9	23.9	6.6	6.7
Prop In Lane	1.00		1.00	1.00		0.82	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	609	804	682	519	764	701	365	745	631	120	708	707
V/C Ratio(X)	0.22	0.17	0.30	0.16	0.11	0.12	0.75	1.10	0.12	0.23	0.39	0.39
Avail Cap(c_a), veh/h	609	804	682	519	764	701	365	745	631	120	708	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	10.5	11.2	12.4	10.2	10.3	22.3	18.0	11.4	30.0	12.9	12.9
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.7	0.3	0.3	8.4	64.5	0.1	1.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	1.8	2.9	1.4	1.1	1.1	8.0	31.9	1.1	0.8	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	10.6	11.4	13.1	10.5	10.6	30.8	82.5	11.5	31.0	13.2	13.2
LnGrp LOS	B	B	B	B	B	B	C	F	B	C	B	B
Approach Vol, veh/h		478			248			1173			582	
Approach Delay, s/veh		11.5			11.4			65.7			14.1	
Approach LOS		B			B			E			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		8.0		25.9		8.3		25.9				
Green Ext Time (p_c), s		1.2		0.0		1.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	127	189	78	88	62	252	755	72	26	434	75
Future Volume (veh/h)	124	127	189	78	88	62	252	755	72	26	434	75
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	138	205	85	96	67	274	821	78	28	472	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	609	804	682	519	891	574	365	745	631	120	1207	209
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.3	10.6	11.4	13.1	10.5	10.6	30.8	82.5	11.5	31.0	13.2	13.2
Ln Grp LOS	B	B	B	B	B	B	C	F	B	C	B	B
Approach Vol, veh/h		478			248			1173			582	
Approach Delay, s/veh		11.5			11.4			65.7			14.1	
Approach LOS		B			B			E			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.1		5.4		4.4		5.2
Max Q Clear (g_c+l1), s		8.0		25.9		8.3		25.9
Green Ext Time (g_e), s		1.2		0.0		1.8		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.01		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1038		619		1223		854
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2072		3030		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1335		523		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	85	0	28	0	135	0	274
Grp Sat Flow (s), veh/h/ln	0	1038	0	619	0	1223	0	854
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	4.5	0.0	17.2
Cycle Q Clear Time (g_c), s	0.0	6.0	0.0	23.9	0.0	6.3	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1038	0	619	0	1223	0	854
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.1	0.0	0.0	0.0	24.0	0.0	17.2
Perm LT Q Serve Time (g_ps), s	0.0	3.3	0.0	0.0	0.0	4.5	0.0	17.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	519	0	120	0	609	0	365
V/C Ratio (X)	0.00	0.16	0.00	0.23	0.00	0.22	0.00	0.75
Avail Cap (c_a), veh/h	0	519	0	120	0	609	0	365
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.4	0.0	30.0	0.0	12.1	0.0	22.3
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.0	0.0	0.2	0.0	8.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.1	0.0	31.0	0.0	12.3	0.0	30.8
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.4	0.0	1.1	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.77
%ile Back of Q (95%), veh/ln	0.0	1.4	0.0	0.8	0.0	2.0	0.0	8.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.20	0.00	0.38	0.00	0.99
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	81	0	276	0	138	0	821
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.6	0.0	6.6	0.0	2.7	0.0	23.9
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	6.6	0.0	2.7	0.0	23.9
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.11	0.00	0.39	0.00	0.17	0.00	1.10
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.9	0.0	10.5	0.0	18.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	0.1	0.0	64.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	13.2	0.0	10.6	0.0	82.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	2.3	0.0	1.0	0.0	8.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	13.3

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.44
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	4.3	0.0	1.8	0.0	31.9
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.21	0.00	0.11	0.00	1.96
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	82	0	278	0	205	0	78
Grp Sat Flow (s), veh/h/ln	0	1630	0	1776	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.8	0.0	6.7	0.0	5.1	0.0	1.9
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	6.7	0.0	5.1	0.0	1.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.82	0.00	0.29	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	701	0	707	0	682	0	631
V/C Ratio (X)	0.00	0.12	0.00	0.39	0.00	0.30	0.00	0.12
Avail Cap (c_a), veh/h	0	701	0	707	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	12.9	0.0	11.2	0.0	11.4
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.6	0.0	13.2	0.0	11.4	0.0	11.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	2.3	0.0	1.6	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	4.4	0.0	2.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.21	0.00	0.18	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		37.7
HCM 6th LOS		D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	792	679	299	908	370	466	1255	228	228	1639	103
Future Volume (veh/h)	109	792	679	299	908	370	466	1255	228	228	1639	103
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	861	738	325	987	402	507	1364	248	248	1782	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	782	605	311	910	542	559	1938	352	297	1811	114
Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.45	0.45	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4343	789	3456	4911	308
Grp Volume(v), veh/h	118	861	738	325	987	402	507	1069	543	248	1234	660
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1728	1728	1702	1815
Q Serve(g_s), s	5.0	33.0	33.0	13.5	38.4	24.7	21.6	38.0	38.1	10.6	53.9	54.1
Cycle Q Clear(g_c), s	5.0	33.0	33.0	13.5	38.4	24.7	21.6	38.0	38.1	10.6	53.9	54.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.17
Lane Grp Cap(c), veh/h	184	782	605	311	910	542	559	1519	771	297	1255	669
V/C Ratio(X)	0.64	1.10	1.22	1.04	1.08	0.74	0.91	0.70	0.70	0.84	0.98	0.99
Avail Cap(c_a), veh/h	184	782	605	311	910	542	620	1519	771	369	1255	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	58.5	46.4	68.3	55.8	24.5	61.7	33.5	33.5	67.5	46.9	47.0
Incr Delay (d2), s/veh	7.3	63.5	113.1	63.3	55.6	5.4	16.1	2.8	5.3	12.9	21.7	31.5
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(95%),veh/ln	4.4	31.0	58.0	13.8	33.9	15.4	16.2	22.9	23.9	9.0	34.9	39.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	122.0	159.4	131.5	111.4	29.9	77.8	36.3	38.9	80.4	68.6	78.4
LnGrp LOS	E	F	F	F	F	C	E	D	D	F	E	E
Approach Vol, veh/h		1717			1714			2119			2142	
Approach Delay, s/veh		135.0			96.1			46.9			73.0	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	72.7	19.4	39.0	30.5	61.1	14.0	44.4
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	* 8	38.4
Max Q Clear Time (g_c+I1), s	12.6	40.1	15.5	35.0	23.6	56.1	7.0	40.4
Green Ext Time (p_c), s	0.3	18.5	0.0	0.0	0.7	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	84.8
HCM 6th LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	792	679	299	908	370	466	1255	228	228	1639	103
Future Volume (veh/h)	109	792	679	299	908	370	466	1255	228	228	1639	103
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	861	738	325	987	402	507	1364	248	248	1782	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	184	782	605	311	910	542	559	1938	352	297	1811	114
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
Prop Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.45	0.45	0.09	0.37	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	76.8	122.0	159.4	131.5	111.4	29.9	77.8	36.3	38.9	80.4	68.6	78.4
Ln Grp LOS	E	F	F	F	F	C	E	D	D	F	E	E
Approach Vol, veh/h		1717			1714			2119			2142	
Approach Delay, s/veh		135.0			96.1			46.9			73.0	
Approach LOS		F			F			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	18.9	72.7	19.4	39.0	30.5	61.1	44.4	14.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	38.4	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.7	3.8	5.8	4.9	3.8
Max Q Clear (g_c+l1), s	12.6	40.1	15.5	35.0	23.6	56.1	40.4	7.0
Green Ext Time (g_e), s	0.3	18.5	0.0	0.0	0.7	0.0	0.0	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4343		3554		4911	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		789		1585		308	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	248	0	325	0	507	0	0	118
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	10.6	0.0	13.5	0.0	21.6	0.0	0.0	5.0
Cycle Q Clear Time (g_c), s	10.6	0.0	13.5	0.0	21.6	0.0	0.0	5.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	297	0	311	0	559	0	0	184
V/C Ratio (X)	0.84	0.00	1.04	0.00	0.91	0.00	0.00	0.64
Avail Cap (c_a), veh/h	369	0	311	0	620	0	0	184
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	67.5	0.0	68.3	0.0	61.7	0.0	0.0	69.6
Incr Delay (d2), s/veh	12.9	0.0	63.3	0.0	16.1	0.0	0.0	7.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	80.4	0.0	131.5	0.0	77.8	0.0	0.0	76.8
1st-Term Q (Q1), veh/ln	4.7	0.0	6.0	0.0	9.5	0.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.5	0.0	2.7	0.0	1.3	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.72	0.00	1.58	0.00	1.50	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	9.0	0.0	13.8	0.0	16.2	0.0	0.0	4.4
%ile Storage Ratio (RQ%)	1.14	0.00	1.21	0.00	1.03	0.00	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1069	0	861	0	1234	987	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	38.0	0.0	33.0	0.0	53.9	38.4	0.0
Cycle Q Clear Time (g_c), s	0.0	38.0	0.0	33.0	0.0	53.9	38.4	0.0
Lane Grp Cap (c), veh/h	0	1519	0	782	0	1255	910	0
V/C Ratio (X)	0.00	0.70	0.00	1.10	0.00	0.98	1.08	0.00
Avail Cap (c_a), veh/h	0	1519	0	782	0	1255	910	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.5	0.0	58.5	0.0	46.9	55.8	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	63.5	0.0	21.7	55.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.3	0.0	122.0	0.0	68.6	111.4	0.0
1st-Term Q (Q1), veh/ln	0.0	15.7	0.0	14.8	0.0	22.7	17.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	6.9	0.0	3.8	7.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.41	0.00	1.43	0.00	1.32	1.40	0.00
%ile Back of Q (95%), veh/ln	0.0	22.9	0.0	31.0	0.0	34.9	33.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	2.21	0.00	1.10	8.12	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	19.8	0.0	0.0	19.3	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	543	0	738	0	660	402	0
Grp Sat Flow (s), veh/h/ln	0	1728	0	1585	0	1815	1585	0
Q Serve Time (g_s), s	0.0	38.1	0.0	33.0	0.0	54.1	24.7	0.0
Cycle Q Clear Time (g_c), s	0.0	38.1	0.0	33.0	0.0	54.1	24.7	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	24.3	0.0	0.0	12.9	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	1.00	0.00	0.17	1.00	0.00
Lane Grp Cap (c), veh/h	0	771	0	605	0	669	542	0
V/C Ratio (X)	0.00	0.70	0.00	1.22	0.00	0.99	0.74	0.00
Avail Cap (c_a), veh/h	0	771	0	605	0	669	542	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.5	0.0	46.4	0.0	47.0	24.5	0.0
Incr Delay (d2), s/veh	0.0	5.3	0.0	113.1	0.0	31.5	5.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.9	0.0	159.4	0.0	78.4	29.9	0.0
1st-Term Q (Q1), veh/ln	0.0	16.0	0.0	22.4	0.0	24.3	9.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	19.0	0.0	5.9	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	0.00	1.40	0.00	1.30	1.52	0.00
%ile Back of Q (95%), veh/ln	0.0	23.9	0.0	58.0	0.0	39.1	15.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.40	0.00	4.12	0.00	1.23	3.68	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	33.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	84.8
HCM 6th LOS	F

Notes

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1068	194	145	1485	36	0	0	123	0	0	92
Future Vol, veh/h	2	1068	194	145	1485	36	0	0	123	0	0	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1161	211	158	1614	39	0	0	134	0	0	100

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1653	0	0	1372	0	0	-	-	686	-	-	827
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	187	-	-	496	-	-	0	0	390	0	0	270
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	187	-	-	496	-	-	-	-	390	-	-	270
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	19	26
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	187	-	-	496	-	-	270
HCM Lane V/C Ratio	0.343	0.012	-	-	0.318	-	-	0.37
HCM Control Delay (s)	19	24.5	-	-	15.6	-	-	26
HCM Lane LOS	C	C	-	-	C	-	-	D
HCM 95th %tile Q(veh)	1.5	0	-	-	1.4	-	-	1.6

HCM 6th Signalized Intersection Summary
3: Glencoe Avenue/Costco Driveway & Washington Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	937	303	519	1118	415	347	112	375	265	130	36
Future Volume (veh/h)	27	937	303	519	1118	415	347	112	375	265	130	36
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1018	329	564	1215	451	250	300	408	214	244	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	298	3554	1585	405	3554	1585	1096	1870	1585	741	1870	1585
Grp Volume(v), veh/h	29	1018	329	564	1215	451	250	300	408	214	244	39
Grp Sat Flow(s),veh/h/ln	298	1777	1585	405	1777	1585	1096	1870	1585	741	1870	1585
Q Serve(g_s), s	4.8	11.8	7.7	48.7	15.3	11.7	10.1	13.3	20.5	7.2	10.4	1.8
Cycle Q Clear(g_c), s	20.2	11.8	7.7	60.5	15.3	11.7	20.5	13.3	20.5	20.5	10.4	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
V/C Ratio(X)	0.13	0.43	0.31	1.89	0.51	0.42	1.23	0.70	1.13	1.53	0.57	0.11
Avail Cap(c_a), veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	6.8	6.1	27.2	7.3	6.8	42.0	32.0	34.8	43.5	30.9	27.5
Incr Delay (d2), s/veh	0.2	0.1	0.2	411.0	0.2	0.3	140.2	9.4	87.5	273.3	5.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	6.9	4.1	71.3	8.6	6.1	20.1	11.3	24.7	23.4	9.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	6.9	6.3	438.2	7.5	7.0	182.2	41.4	122.3	316.7	36.4	28.1
LnGrp LOS	B	A	A	F	A	A	F	D	F	F	D	C
Approach Vol, veh/h		1376			2230			958			497	
Approach Delay, s/veh		6.9			116.4			112.6			156.4	
Approach LOS		A			F			F			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		60.5		20.5		60.5				
Max Q Clear Time (g_c+I1), s		22.5		22.2		22.5		62.5				
Green Ext Time (p_c), s		0.0		12.2		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			89.8
HCM 6th LOS			F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	937	303	519	1118	415	347	112	375	265	130	36
Future Volume (veh/h)	27	937	303	519	1118	415	347	112	375	265	130	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1018	329	564	1215	451	250	300	408	214	244	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
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
Prop Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.6	6.9	6.3	438.2	7.5	7.0	182.2	41.4	122.3	316.7	36.4	28.1
Ln Grp LOS	B	A	A	F	A	A	F	D	F	F	D	C
Approach Vol, veh/h		1376			2230			958			497	
Approach Delay, s/veh		6.9			116.4			112.6			156.4	
Approach LOS		A			F			F			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		20.5		60.5		20.5		60.5
Max Allow Headway (MAH), s		4.5		5.1		5.5		6.3
Max Q Clear (g_c+l1), s		22.5		22.2		22.5		62.5
Green Ext Time (g_e), s		0.0		12.2		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.08		0.00		1.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1096		298		741		405

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	250	0	29	0	214	0	564
Grp Sat Flow (s), veh/h/ln	0	1096	0	298	0	741	0	405
Q Serve Time (g_s), s	0.0	10.1	0.0	4.8	0.0	7.2	0.0	48.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	20.2	0.0	20.5	0.0	60.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1096	0	298	0	741	0	405
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.5	0.0	60.5	0.0	20.5	0.0	60.5
Perm LT Serve Time (g_u), s	0.0	10.1	0.0	45.2	0.0	7.2	0.0	48.7
Perm LT Q Serve Time (g_ps), s	0.0	10.1	0.0	4.8	0.0	7.2	0.0	48.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	203	0	230	0	139	0	299
V/C Ratio (X)	0.00	1.23	0.00	0.13	0.00	1.53	0.00	1.89
Avail Cap (c_a), veh/h	0	203	0	230	0	139	0	299
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	42.0	0.0	12.4	0.0	43.5	0.0	27.2
Incr Delay (d2), s/veh	0.0	140.2	0.0	0.2	0.0	273.3	0.0	411.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	182.2	0.0	12.6	0.0	316.7	0.0	438.2
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	0.3	0.0	3.1	0.0	6.6
2nd-Term Q (Q2), veh/ln	0.0	7.9	0.0	0.0	0.0	10.6	0.0	34.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.62	0.00	1.80	0.00	1.72	0.00	1.75
%ile Back of Q (95%), veh/ln	0.0	20.1	0.0	0.6	0.0	23.4	0.0	71.3
%ile Storage Ratio (RQ%)	0.00	5.09	0.00	0.04	0.00	2.11	0.00	6.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	11.8	0.0	0.0	0.0	18.6	0.0	66.2
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.5

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	300	0	1018	0	244	0	1215
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	13.3	0.0	11.8	0.0	10.4	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	13.3	0.0	11.8	0.0	10.4	0.0	15.3
Lane Grp Cap (c), veh/h	0	426	0	2389	0	426	0	2389
V/C Ratio (X)	0.00	0.70	0.00	0.43	0.00	0.57	0.00	0.51
Avail Cap (c_a), veh/h	0	426	0	2389	0	426	0	2389
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	32.0	0.0	6.8	0.0	30.9	0.0	7.3
Incr Delay (d2), s/veh	0.0	9.4	0.0	0.1	0.0	5.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.4	0.0	6.9	0.0	36.4	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	3.8	0.0	4.6	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	0.0	0.0	0.7	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.62	0.00	1.80	0.00	1.72	0.00	1.74
%ile Back of Q (95%), veh/ln	0.0	11.3	0.0	6.9	0.0	9.0	0.0	8.6
%ile Storage Ratio (RQ%)	0.00	1.14	0.00	0.72	0.00	0.81	0.00	0.45
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	408	0	329	0	39	0	451
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	20.5	0.0	7.7	0.0	1.8	0.0	11.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	7.7	0.0	1.8	0.0	11.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	361	0	1066	0	361	0	1066
V/C Ratio (X)	0.00	1.13	0.00	0.31	0.00	0.11	0.00	0.42
Avail Cap (c_a), veh/h	0	361	0	1066	0	361	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.8	0.0	6.1	0.0	27.5	0.0	6.8
Incr Delay (d2), s/veh	0.0	87.5	0.0	0.2	0.0	0.6	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	122.3	0.0	6.3	0.0	28.1	0.0	7.0
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	2.2	0.0	0.7	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	8.8	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	24.7	0.0	4.1	0.0	1.3	0.0	6.1
%ile Storage Ratio (RQ%)	0.00	6.26	0.00	1.29	0.00	0.12	0.00	1.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	89.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	81	128	475	128	220	171	1721	362	149	2373	97
Future Volume (veh/h)	83	81	128	475	128	220	171	1721	362	149	2373	97
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	88	139	516	139	239	186	1871	393	162	2579	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	234	454	476	501	271	2188	1083	213	2664	108
Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6390	259
Grp Volume(v), veh/h	90	88	139	516	139	239	186	1871	393	162	1946	738
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1824
Q Serve(g_s), s	6.4	6.0	0.5	33.1	7.8	15.8	6.8	43.0	13.6	6.0	51.2	51.5
Cycle Q Clear(g_c), s	6.4	6.0	0.5	33.1	7.8	15.8	6.8	43.0	13.6	6.0	51.2	51.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	123	129	234	454	476	501	271	2188	1083	213	2012	760
V/C Ratio(X)	0.73	0.68	0.59	1.14	0.29	0.48	0.69	0.86	0.36	0.76	0.97	0.97
Avail Cap(c_a), veh/h	136	142	245	454	476	501	271	2188	1083	226	2012	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	59.1	51.8	48.5	39.0	35.8	58.3	33.5	8.7	60.1	37.0	37.1
Incr Delay (d2), s/veh	16.4	11.0	3.5	85.7	0.3	0.7	7.0	4.5	0.9	13.4	13.7	26.2
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(95%),veh/ln	6.3	5.8	7.9	36.3	6.6	10.3	5.9	25.5	14.6	5.4	30.0	36.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	70.1	55.3	134.1	39.3	36.5	65.4	38.1	9.6	73.4	50.7	63.4
LnGrp LOS	E	E	E	F	D	D	E	D	A	E	D	E
Approach Vol, veh/h		317			894			2450			2846	
Approach Delay, s/veh		65.2			93.3			35.6			55.3	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	61.6		39.2	16.1	59.6		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 55		33.1	9.3	* 54		9.9
Max Q Clear Time (g_c+I1), s	8.0	45.0		35.1	8.8	53.5		8.4
Green Ext Time (p_c), s	0.0	8.3		0.0	0.0	0.6		0.2

Intersection Summary	
HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	81	128	475	128	220	171	1721	362	149	2373	97
Future Volume (veh/h)	83	81	128	475	128	220	171	1721	362	149	2373	97
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	88	139	516	139	239	186	1871	393	162	2579	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	234	454	476	501	271	2188	1083	213	2664	108
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
Prop Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	75.7	70.1	55.3	134.1	39.3	36.5	65.4	38.1	9.6	73.4	50.7	63.4
Ln Grp LOS	E	E	E	F	D	D	E	D	A	E	D	E
Approach Vol, veh/h		317			894			2450			2846	
Approach Delay, s/veh		65.2			93.3			35.6			55.3	
Approach LOS		E			F			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.1	61.6	15.1	39.2	59.6	16.1		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 55	9.9	33.1	* 54	9.3		
Max Allow Headway (MAH), s	3.8	5.0	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+l1), s	8.0	45.0	8.4	35.1	53.5	8.8		
Green Ext Time (g_e), s	0.0	8.3	0.2	0.0	0.6	0.0		
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	1.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6390			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	259			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	162	0	90	516	0	186	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	6.0	0.0	6.4	33.1	0.0	6.8	0.0	0.0
Cycle Q Clear Time (g_c), s	6.0	0.0	6.4	33.1	0.0	6.8	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	213	0	123	454	0	271	0	0
V/C Ratio (X)	0.76	0.00	0.73	1.14	0.00	0.69	0.00	0.00
Avail Cap (c_a), veh/h	226	0	136	454	0	271	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	60.1	0.0	59.3	48.5	0.0	58.3	0.0	0.0
Incr Delay (d2), s/veh	13.4	0.0	16.4	85.7	0.0	7.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.4	0.0	75.7	134.1	0.0	65.4	0.0	0.0
1st-Term Q (Q1), veh/ln	2.6	0.0	2.9	14.6	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.6	10.8	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.43	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	5.4	0.0	6.3	36.3	0.0	5.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.69	0.00	3.18	14.19	0.00	2.29	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	1871	88	139	1946	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	43.0	6.0	7.8	51.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	43.0	6.0	7.8	51.2	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2188	129	476	2012	0	0	0
V/C Ratio (X)	0.00	0.86	0.68	0.29	0.97	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2188	142	476	2012	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.5	59.1	39.0	37.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.5	11.0	0.3	13.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.1	70.1	39.3	50.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	17.5	2.8	3.6	19.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.4	0.0	2.6	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.38	1.80	1.80	1.35	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	25.5	5.8	6.6	30.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.57	0.74	1.27	1.48	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	393	139	239	738	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1824	0	0	0
Q Serve Time (g_s), s	0.0	13.6	0.5	15.8	51.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	13.6	0.5	15.8	51.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	33.1	10.2	8.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.14	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1083	234	501	760	0	0	0
V/C Ratio (X)	0.00	0.36	0.59	0.48	0.97	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1083	245	501	760	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.7	51.8	35.8	37.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	3.5	0.7	26.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.6	55.3	36.5	63.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.3	4.2	6.1	22.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.2	0.1	5.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.53	1.78	1.66	1.31	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	14.6	7.9	10.3	36.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.72	4.04	2.00	1.82	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		53.6						
HCM 6th LOS		D						

Notes

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

Intersection						
Int Delay, s/veh	10.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	121	473	566	168	116	220
Future Vol, veh/h	121	473	566	168	116	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	132	514	615	183	126	239

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	798	0	-	0	1228	399
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	820	-	-	-	170	601
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	820	-	-	-	143	601
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	46.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	820	-	-	-	143	601
HCM Lane V/C Ratio	0.16	-	-	-	0.882	0.398
HCM Control Delay (s)	10.2	-	-	-	107	14.9
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.6	-	-	-	5.9	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	119	266	98	258	71	147	525	63	63	788	253
Future Volume (veh/h)	150	119	266	98	258	71	147	525	63	63	788	253
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	129	289	107	280	77	160	571	68	68	857	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	804	682	496	1189	321	174	745	631	226	1054	338
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1024	1870	1585	969	2766	747	497	1870	1585	790	2647	848
Grp Volume(v), veh/h	163	129	289	107	178	179	160	571	68	68	575	557
Grp Sat Flow(s),veh/h/ln	1024	1870	1585	969	1777	1736	497	1870	1585	790	1777	1718
Q Serve(g_s), s	7.2	2.5	7.6	4.6	3.8	3.9	6.6	15.9	1.6	4.9	17.3	17.3
Cycle Q Clear(g_c), s	11.1	2.5	7.6	7.1	3.8	3.9	23.9	15.9	1.6	20.8	17.3	17.3
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	493	804	682	496	764	746	174	745	631	226	708	684
V/C Ratio(X)	0.33	0.16	0.42	0.22	0.23	0.24	0.92	0.77	0.11	0.30	0.81	0.81
Avail Cap(c_a), veh/h	493	804	682	496	764	746	174	745	631	226	708	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	10.5	11.9	12.6	10.8	10.9	28.9	15.6	11.3	24.6	16.1	16.1
Incr Delay (d2), s/veh	0.4	0.1	0.4	1.0	0.7	0.8	45.0	4.8	0.1	0.7	7.2	7.5
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(95%),veh/ln	2.8	1.7	4.3	1.8	2.6	2.7	7.8	11.1	0.9	1.6	11.9	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	10.6	12.3	13.6	11.5	11.6	73.8	20.4	11.4	25.4	23.2	23.6
LnGrp LOS	B	B	B	B	B	B	E	C	B	C	C	C
Approach Vol, veh/h		581			464			799			1200	
Approach Delay, s/veh		12.6			12.1			30.4			23.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		9.1		22.8		13.1		25.9				
Green Ext Time (p_c), s		2.4		0.8		2.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			21.5
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	119	266	98	258	71	147	525	63	63	788	253
Future Volume (veh/h)	150	119	266	98	258	71	147	525	63	63	788	253
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	129	289	107	280	77	160	571	68	68	857	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	493	804	682	496	1189	321	174	745	631	226	1054	338
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.8	10.6	12.3	13.6	11.5	11.6	73.8	20.4	11.4	25.4	23.2	23.6
Ln Grp LOS	B	B	B	B	B	B	E	C	B	C	C	C
Approach Vol, veh/h		581			464			799			1200	
Approach Delay, s/veh		12.6			12.1			30.4			23.5	
Approach LOS		B			B			C			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.2		5.3		4.5		5.7
Max Q Clear (g_c+l1), s		9.1		22.8		13.1		25.9
Green Ext Time (g_e), s		2.4		0.8		2.1		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.09		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		969		790		1024		497
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2766		2647		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		747		848		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	107	0	68	0	163	0	160
Grp Sat Flow (s), veh/h/ln	0	969	0	790	0	1024	0	497
Q Serve Time (g_s), s	0.0	4.6	0.0	4.9	0.0	7.2	0.0	6.6
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	20.8	0.0	11.1	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	969	0	790	0	1024	0	497
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.3	0.0	8.0	0.0	21.9	0.0	6.6
Perm LT Q Serve Time (g_ps), s	0.0	4.6	0.0	4.9	0.0	7.2	0.0	6.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	496	0	226	0	493	0	174
V/C Ratio (X)	0.00	0.22	0.00	0.30	0.00	0.33	0.00	0.92
Avail Cap (c_a), veh/h	0	496	0	226	0	493	0	174
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.6	0.0	24.6	0.0	14.4	0.0	28.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.7	0.0	0.4	0.0	45.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.6	0.0	25.4	0.0	14.8	0.0	73.8
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.9	0.0	1.5	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	2.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.78
%ile Back of Q (95%), veh/ln	0.0	1.8	0.0	1.6	0.0	2.8	0.0	7.8
%ile Storage Ratio (RQ%)	0.00	0.85	0.00	0.44	0.00	0.52	0.00	0.97
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	178	0	575	0	129	0	571
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.8	0.0	17.3	0.0	2.5	0.0	15.9
Cycle Q Clear Time (g_c), s	0.0	3.8	0.0	17.3	0.0	2.5	0.0	15.9
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.23	0.00	0.81	0.00	0.16	0.00	0.77
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.8	0.0	16.1	0.0	10.5	0.0	15.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	7.2	0.0	0.1	0.0	4.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	23.2	0.0	10.6	0.0	20.4
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	6.1	0.0	0.9	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.4	0.0	0.0	0.0	1.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.60	0.00	1.80	0.00	1.63
%ile Back of Q (95%), veh/ln	0.0	2.6	0.0	11.9	0.0	1.7	0.0	11.1
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.59	0.00	0.10	0.00	0.68
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	179	0	557	0	289	0	68
Grp Sat Flow (s), veh/h/ln	0	1736	0	1718	0	1585	0	1585
Q Serve Time (g_s), s	0.0	3.9	0.0	17.3	0.0	7.6	0.0	1.6
Cycle Q Clear Time (g_c), s	0.0	3.9	0.0	17.3	0.0	7.6	0.0	1.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.43	0.00	0.49	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	746	0	684	0	682	0	631
V/C Ratio (X)	0.00	0.24	0.00	0.81	0.00	0.42	0.00	0.11
Avail Cap (c_a), veh/h	0	746	0	684	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	16.1	0.0	11.9	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	7.5	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	23.6	0.0	12.3	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	5.9	0.0	2.3	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.4	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.61	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	2.7	0.0	11.7	0.0	4.3	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.58	0.00	0.27	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	818	499	126	654	235	813	1508	174	323	1170	153
Future Volume (veh/h)	87	818	499	126	654	235	813	1508	174	323	1170	153
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	889	542	137	711	255	884	1639	189	351	1272	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	877	780	184	803	541	848	1983	228	398	1351	176
Arrive On Green	0.07	0.25	0.25	0.05	0.23	0.23	0.25	0.43	0.43	0.12	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4644	534	3456	4571	596
Grp Volume(v), veh/h	95	889	542	137	711	255	884	1200	628	351	947	491
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1774	1728	1702	1763
Q Serve(g_s), s	3.9	37.0	37.0	5.9	29.0	13.4	36.8	46.8	47.1	15.0	40.7	40.8
Cycle Q Clear(g_c), s	3.9	37.0	37.0	5.9	29.0	13.4	36.8	46.8	47.1	15.0	40.7	40.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.34
Lane Grp Cap(c), veh/h	253	877	780	184	803	541	848	1453	758	398	1006	521
V/C Ratio(X)	0.38	1.01	0.70	0.75	0.89	0.47	1.04	0.83	0.83	0.88	0.94	0.94
Avail Cap(c_a), veh/h	253	877	780	187	877	574	848	1453	758	438	1006	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.3	56.5	29.4	70.0	56.2	20.5	56.6	38.0	38.1	65.4	51.6	51.6
Incr Delay (d2), s/veh	0.9	34.0	2.7	14.8	10.2	0.6	42.6	5.5	10.1	17.5	17.4	27.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	28.4	22.1	5.4	20.4	8.8	29.3	28.0	30.3	12.1	27.1	29.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	90.5	32.1	84.9	66.3	21.2	99.2	43.5	48.3	82.8	69.0	78.9
LnGrp LOS	E	F	C	F	E	C	F	D	D	F	E	E
Approach Vol, veh/h		1526			1103			2712			1789	
Approach Delay, s/veh		68.3			58.2			62.8			74.4	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.3	69.8	13.9	43.0	43.0	50.1	17.0	39.9
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	* 8	37.0
Max Q Clear Time (g_c+I1), s	17.0	49.1	7.9	39.0	38.8	42.8	5.9	31.0
Green Ext Time (p_c), s	0.3	11.8	0.0	0.0	0.0	1.2	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	818	499	126	654	235	813	1508	174	323	1170	153
Future Volume (veh/h)	87	818	499	126	654	235	813	1508	174	323	1170	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	889	542	137	711	255	884	1639	189	351	1272	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	253	877	780	184	803	541	848	1983	228	398	1351	176
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
Prop Arrive On Green	0.07	0.25	0.25	0.05	0.23	0.23	0.25	0.43	0.43	0.12	0.30	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.2	90.5	32.1	84.9	66.3	21.2	99.2	43.5	48.3	82.8	69.0	78.9
Ln Grp LOS	E	F	C	F	E	C	F	D	D	F	E	E
Approach Vol, veh/h		1526			1103			2712			1789	
Approach Delay, s/veh		68.3			58.2			62.8			74.4	
Approach LOS		E			E			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	23.3	69.8	13.9	43.0	43.0	50.1	39.9	17.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	19.0	* 62	8.1	* 37	* 37	* 44	37.0	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.8	3.8	5.8	4.9	3.8
Max Q Clear (g_c+l1), s	17.0	49.1	7.9	39.0	38.8	42.8	31.0	5.9
Green Ext Time (g_e), s	0.3	11.8	0.0	0.0	0.0	1.2	2.9	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	0.86	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4644		3554		4571	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		534		1585		596	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	351	0	137	0	884	0	0	95
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	15.0	0.0	5.9	0.0	36.8	0.0	0.0	3.9
Cycle Q Clear Time (g_c), s	15.0	0.0	5.9	0.0	36.8	0.0	0.0	3.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	398	0	184	0	848	0	0	253
V/C Ratio (X)	0.88	0.00	0.75	0.00	1.04	0.00	0.00	0.38
Avail Cap (c_a), veh/h	438	0	187	0	848	0	0	253
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	65.4	0.0	70.0	0.0	56.6	0.0	0.0	66.3
Incr Delay (d2), s/veh	17.5	0.0	14.8	0.0	42.6	0.0	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	82.8	0.0	84.9	0.0	99.2	0.0	0.0	67.2
1st-Term Q (Q1), veh/ln	6.6	0.0	2.6	0.0	16.0	0.0	0.0	1.7
2nd-Term Q (Q2), veh/ln	1.0	0.0	0.4	0.0	5.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.59	0.00	1.80	0.00	1.39	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	12.1	0.0	5.4	0.0	29.3	0.0	0.0	3.2
%ile Storage Ratio (RQ%)	1.54	0.00	0.47	0.00	1.86	0.00	0.00	0.46
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1200	0	889	0	947	711	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	46.8	0.0	37.0	0.0	40.7	29.0	0.0
Cycle Q Clear Time (g_c), s	0.0	46.8	0.0	37.0	0.0	40.7	29.0	0.0
Lane Grp Cap (c), veh/h	0	1453	0	877	0	1006	803	0
V/C Ratio (X)	0.00	0.83	0.00	1.01	0.00	0.94	0.89	0.00
Avail Cap (c_a), veh/h	0	1453	0	877	0	1006	877	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	38.0	0.0	56.5	0.0	51.6	56.2	0.0
Incr Delay (d2), s/veh	0.0	5.5	0.0	34.0	0.0	17.4	10.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.5	0.0	90.5	0.0	69.0	66.3	0.0
1st-Term Q (Q1), veh/ln	0.0	19.5	0.0	16.6	0.0	17.4	13.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	4.1	0.0	2.4	1.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.36	0.00	1.37	0.00	1.37	1.44	0.00
%ile Back of Q (95%), veh/ln	0.0	28.0	0.0	28.4	0.0	27.1	20.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.47	0.00	2.02	0.00	0.85	4.88	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	628	0	542	0	491	255	0
Grp Sat Flow (s), veh/h/ln	0	1774	0	1585	0	1763	1585	0
Q Serve Time (g_s), s	0.0	47.1	0.0	37.0	0.0	40.8	13.4	0.0
Cycle Q Clear Time (g_c), s	0.0	47.1	0.0	37.0	0.0	40.8	13.4	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	36.8	0.0	0.0	17.3	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	1.00	0.00	0.34	1.00	0.00
Lane Grp Cap (c), veh/h	0	758	0	780	0	521	541	0
V/C Ratio (X)	0.00	0.83	0.00	0.70	0.00	0.94	0.47	0.00
Avail Cap (c_a), veh/h	0	758	0	780	0	521	574	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	38.1	0.0	29.4	0.0	51.6	20.5	0.0
Incr Delay (d2), s/veh	0.0	10.1	0.0	2.7	0.0	27.3	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	48.3	0.0	32.1	0.0	78.9	21.2	0.0
1st-Term Q (Q1), veh/ln	0.0	20.4	0.0	15.0	0.0	18.0	5.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	0.6	0.0	4.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.35	0.00	1.41	0.00	1.35	1.73	0.00
%ile Back of Q (95%), veh/ln	0.0	30.3	0.0	22.1	0.0	29.6	8.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.51	0.00	1.57	0.00	0.93	2.11	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		66.2
HCM 6th LOS		E

Notes

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1245	85	47	984	89	0	0	142	0	0	29
Future Vol, veh/h	9	1245	85	47	984	89	0	0	142	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1353	92	51	1070	97	0	0	154	0	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1167	0	0	1445	0	0	-	-	723	-	-	584
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	325	-	-	465	-	-	0	0	369	0	0	390
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	325	-	-	465	-	-	-	-	369	-	-	390
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	21.6	15
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	325	-	-	465	-	-	390
HCM Lane V/C Ratio	0.418	0.03	-	-	0.11	-	-	0.081
HCM Control Delay (s)	21.6	16.4	-	-	13.7	-	-	15
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	2	0.1	-	-	0.4	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1018	213	325	720	303	298	134	531	110	69	46
Future Volume (veh/h)	32	1018	213	325	720	303	298	134	531	110	69	46
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1107	232	353	783	329	235	271	577	98	106	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	2270	1013	274	2270	1013	347	488	414	168	488	414
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	507	3554	1585	408	3554	1585	1231	1870	1585	650	1870	1585
Grp Volume(v), veh/h	35	1107	232	353	783	329	235	271	577	98	106	50
Grp Sat Flow(s),veh/h/ln	507	1777	1585	408	1777	1585	1231	1870	1585	650	1870	1585
Q Serve(g_s), s	3.1	14.7	5.6	42.8	9.2	8.5	16.6	11.3	23.5	12.2	4.0	2.2
Cycle Q Clear(g_c), s	12.3	14.7	5.6	57.5	9.2	8.5	20.6	11.3	23.5	23.5	4.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	2270	1013	274	2270	1013	347	488	414	168	488	414
V/C Ratio(X)	0.10	0.49	0.23	1.29	0.34	0.32	0.68	0.55	1.39	0.58	0.22	0.12
Avail Cap(c_a), veh/h	352	2270	1013	274	2270	1013	347	488	414	168	488	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	8.5	6.9	29.8	7.5	7.4	34.1	28.7	33.3	39.5	26.0	25.4
Incr Delay (d2), s/veh	0.1	0.2	0.1	154.1	0.1	0.2	10.2	4.5	191.6	13.9	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	8.6	3.1	29.2	5.6	4.7	9.8	9.4	47.1	5.1	3.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	8.7	7.0	183.9	7.6	7.6	44.3	33.2	224.9	53.4	27.1	26.0
LnGrp LOS	B	A	A	F	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1374			1465			1083			254	
Approach Delay, s/veh		8.4			50.1			137.7			37.0	
Approach LOS		A			D			F			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.5		57.5		23.5		57.5				
Max Q Clear Time (g_c+I1), s		25.5		16.7		25.5		59.5				
Green Ext Time (p_c), s		0.0		12.7		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			58.3
HCM 6th LOS			E

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1018	213	325	720	303	298	134	531	110	69	46
Future Volume (veh/h)	32	1018	213	325	720	303	298	134	531	110	69	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1107	232	353	783	329	235	271	577	98	106	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	352	2270	1013	274	2270	1013	347	488	414	168	488	414
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
Prop Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.5	8.7	7.0	183.9	7.6	7.6	44.3	33.2	224.9	53.4	27.1	26.0
Ln Grp LOS	B	A	A	F	A	A	D	C	F	D	C	C
Approach Vol, veh/h		1374			1465			1083			254	
Approach Delay, s/veh		8.4			50.1			137.7			37.0	
Approach LOS		A			D			F			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		28.0		62.0		28.0		62.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		23.5		57.5		23.5		57.5
Max Allow Headway (MAH), s		4.4		5.1		5.6		6.1
Max Q Clear (g_c+I1), s		25.5		16.7		25.5		59.5
Green Ext Time (g_e), s		0.0		12.7		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.07		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1231		507		650		408
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	235	0	35	0	98	0	353
Grp Sat Flow (s), veh/h/ln	0	1231	0	507	0	650	0	408
Q Serve Time (g_s), s	0.0	16.6	0.0	3.1	0.0	12.2	0.0	42.8
Cycle Q Clear Time (g_c), s	0.0	20.6	0.0	12.3	0.0	23.5	0.0	57.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1231	0	507	0	650	0	408
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.5	0.0	57.5	0.0	23.5	0.0	57.5
Perm LT Serve Time (g_u), s	0.0	19.5	0.0	48.3	0.0	12.2	0.0	42.8
Perm LT Q Serve Time (g_ps), s	0.0	16.6	0.0	3.1	0.0	12.2	0.0	42.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	347	0	352	0	168	0	274
V/C Ratio (X)	0.00	0.68	0.00	0.10	0.00	0.58	0.00	1.29
Avail Cap (c_a), veh/h	0	347	0	352	0	168	0	274
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.1	0.0	10.4	0.0	39.5	0.0	29.8
Incr Delay (d2), s/veh	0.0	10.2	0.0	0.1	0.0	13.9	0.0	154.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	44.3	0.0	10.5	0.0	53.4	0.0	183.9
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.3	0.0	2.2	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.6	0.0	11.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.68	0.00	1.80	0.00	1.80	0.00	1.64
%ile Back of Q (95%), veh/ln	0.0	9.8	0.0	0.6	0.0	5.1	0.0	29.2
%ile Storage Ratio (RQ%)	0.00	2.49	0.00	0.05	0.00	0.46	0.00	2.80
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	271	0	1107	0	106	0	783
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	11.3	0.0	14.7	0.0	4.0	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	14.7	0.0	4.0	0.0	9.2
Lane Grp Cap (c), veh/h	0	488	0	2270	0	488	0	2270
V/C Ratio (X)	0.00	0.55	0.00	0.49	0.00	0.22	0.00	0.34
Avail Cap (c_a), veh/h	0	488	0	2270	0	488	0	2270
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.7	0.0	8.5	0.0	26.0	0.0	7.5
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.2	0.0	1.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.2	0.0	8.7	0.0	27.1	0.0	7.6
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	4.9	0.0	1.7	0.0	3.1
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.1	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.70	0.00	1.74	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	9.4	0.0	8.6	0.0	3.4	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.95	0.00	0.91	0.00	0.31	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	577	0	232	0	50	0	329
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.5	0.0	5.6	0.0	2.2	0.0	8.5
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	5.6	0.0	2.2	0.0	8.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	414	0	1013	0	414	0	1013
V/C Ratio (X)	0.00	1.39	0.00	0.23	0.00	0.12	0.00	0.32
Avail Cap (c_a), veh/h	0	414	0	1013	0	414	0	1013
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.3	0.0	6.9	0.0	25.4	0.0	7.4
Incr Delay (d2), s/veh	0.0	191.6	0.0	0.1	0.0	0.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	224.9	0.0	7.0	0.0	26.0	0.0	7.6
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	1.7	0.0	0.8	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	22.0	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.53	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	47.1	0.0	3.1	0.0	1.6	0.0	4.7
%ile Storage Ratio (RQ%)	0.00	11.97	0.00	0.97	0.00	0.14	0.00	1.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		58.3
HCM 6th LOS		E

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	83	195	262	43	307	91	2181	272	166	1541	59
Future Volume (veh/h)	74	83	195	262	43	307	91	2181	272	166	1541	59
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	90	212	285	47	334	99	2371	296	180	1675	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	518	356	374	421	890	3115	1284	226	2711	104
Arrive On Green	0.07	0.07	0.07	0.20	0.20	0.20	0.26	0.61	0.61	0.07	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6407	245
Grp Volume(v), veh/h	80	90	212	285	47	334	99	2371	296	180	1261	478
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1826
Q Serve(g_s), s	5.7	6.1	0.0	19.8	2.7	25.5	2.8	44.0	5.7	6.7	26.5	26.6
Cycle Q Clear(g_c), s	5.7	6.1	0.0	19.8	2.7	25.5	2.8	44.0	5.7	6.7	26.5	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	123	129	518	356	374	421	890	3115	1284	226	2042	773
V/C Ratio(X)	0.65	0.70	0.41	0.80	0.13	0.79	0.11	0.76	0.23	0.80	0.62	0.62
Avail Cap(c_a), veh/h	123	129	518	356	374	421	890	3115	1284	226	2042	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	59.2	34.0	49.5	42.7	44.4	36.9	18.5	2.9	59.9	29.3	29.3
Incr Delay (d2), s/veh	11.3	14.9	0.5	12.2	0.1	10.1	0.1	1.8	0.4	17.8	1.4	3.7
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(95%),veh/ln	5.3	6.2	9.1	15.2	2.3	16.7	2.2	23.9	7.6	6.3	15.8	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	74.1	34.5	61.7	42.8	54.5	36.9	20.3	3.3	77.7	30.7	33.0
LnGrp LOS	E	E	C	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		382			666			2766			1919	
Approach Delay, s/veh		51.3			56.8			19.0			35.7	
Approach LOS		D			E			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	85.7		32.1	39.9	60.4		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 63		26.0	16.5	* 55		9.0
Max Q Clear Time (g_c+I1), s	8.7	46.0		27.5	4.8	28.6		8.1
Green Ext Time (p_c), s	0.0	14.9		0.0	0.2	14.7		0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	83	195	262	43	307	91	2181	272	166	1541	59
Future Volume (veh/h)	74	83	195	262	43	307	91	2181	272	166	1541	59
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	90	212	285	47	334	99	2371	296	180	1675	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	518	356	374	421	890	3115	1284	226	2711	104
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
Prop Arrive On Green	0.07	0.07	0.07	0.20	0.20	0.20	0.26	0.61	0.61	0.07	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	70.3	74.1	34.5	61.7	42.8	54.5	36.9	20.3	3.3	77.7	30.7	33.0
Ln Grp LOS	E	E	C	E	D	D	D	C	A	E	C	C
Approach Vol, veh/h		382			666			2766			1919	
Approach Delay, s/veh		51.3			56.8			19.0			35.7	
Approach LOS		D			E			B			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.6	85.7	15.1	32.1	60.4	39.9		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 63	9.0	26.0	* 55	16.5		
Max Allow Headway (MAH), s	3.8	5.1	4.3	4.0	5.3	3.8		
Max Q Clear (g_c+l1), s	8.7	46.0	8.1	27.5	28.6	4.8		
Green Ext Time (g_e), s	0.0	14.9	0.2	0.0	14.7	0.2		
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	0.97		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6407			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	245			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	180	0	80	285	0	99	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	6.7	0.0	5.7	19.8	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	6.7	0.0	5.7	19.8	0.0	2.8	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	226	0	123	356	0	890	0	0
V/C Ratio (X)	0.80	0.00	0.65	0.80	0.00	0.11	0.00	0.00
Avail Cap (c_a), veh/h	226	0	123	356	0	890	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	59.9	0.0	59.0	49.5	0.0	36.9	0.0	0.0
Incr Delay (d2), s/veh	17.8	0.0	11.3	12.2	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	77.7	0.0	70.3	61.7	0.0	36.9	0.0	0.0
1st-Term Q (Q1), veh/ln	2.9	0.0	2.6	8.8	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.6	0.0	0.4	1.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.52	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	6.3	0.0	5.3	15.2	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.80	0.00	2.71	5.95	0.00	0.86	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	2371	90	47	1261	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	44.0	6.1	2.7	26.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	44.0	6.1	2.7	26.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3115	129	374	2042	0	0	0
V/C Ratio (X)	0.00	0.76	0.70	0.13	0.62	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	3115	129	374	2042	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	18.5	59.2	42.7	29.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	14.9	0.1	1.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.3	74.1	42.8	30.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	16.6	2.9	1.3	10.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.5	0.0	0.3	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	1.80	1.80	1.51	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	23.9	6.2	2.3	15.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.47	0.79	0.44	0.78	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	296	212	334	478	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1826	0	0	0
Q Serve Time (g_s), s	0.0	5.7	0.0	25.5	26.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	25.5	26.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	26.0	33.5	8.5	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.13	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1284	518	421	773	0	0	0
V/C Ratio (X)	0.00	0.23	0.41	0.79	0.62	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1284	518	421	773	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.9	34.0	44.4	29.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.5	10.1	3.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.3	34.5	54.5	33.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.1	5.2	10.0	11.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	1.2	0.8	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.71	1.49	1.47	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	7.6	9.1	16.7	18.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.93	4.63	3.23	0.90	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	421	419	78	97	192
Future Vol, veh/h	102	421	419	78	97	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	458	455	85	105	209

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	540	0	-	0	949	270
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1025	-	-	-	259	728
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1025	-	-	-	231	728
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	609	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1025	-	-	-	231	728
HCM Lane V/C Ratio	0.108	-	-	-	0.456	0.287
HCM Control Delay (s)	8.9	-	-	-	33	11.9
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.2	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	137	192	78	85	62	251	755	72	26	434	72
Future Volume (veh/h)	124	137	192	78	85	62	251	755	72	26	434	72
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	149	209	85	92	67	273	821	78	28	472	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	804	682	510	876	587	367	745	631	120	1217	200
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1227	1870	1585	1023	2037	1365	858	1870	1585	619	3055	502
Grp Volume(v), veh/h	135	149	209	85	79	80	273	821	78	28	273	277
Grp Sat Flow(s),veh/h/ln	1227	1870	1585	1023	1777	1625	858	1870	1585	619	1777	1780
Q Serve(g_s), s	4.4	3.0	5.2	3.4	1.6	1.8	17.3	23.9	1.9	0.0	6.6	6.6
Cycle Q Clear(g_c), s	6.2	3.0	5.2	6.3	1.6	1.8	23.9	23.9	1.9	23.9	6.6	6.6
Prop In Lane	1.00		1.00	1.00		0.84	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	612	804	682	510	764	699	367	745	631	120	708	709
V/C Ratio(X)	0.22	0.19	0.31	0.17	0.10	0.11	0.74	1.10	0.12	0.23	0.39	0.39
Avail Cap(c_a), veh/h	612	804	682	510	764	699	367	745	631	120	708	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	10.6	11.2	12.5	10.2	10.3	22.2	18.0	11.4	30.0	12.8	12.9
Incr Delay (d2), s/veh	0.2	0.1	0.3	0.7	0.3	0.3	8.0	64.5	0.1	1.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	2.0	2.9	1.4	1.1	1.1	7.9	31.9	1.1	0.8	4.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	10.7	11.5	13.3	10.5	10.6	30.2	82.5	11.5	31.0	13.2	13.2
LnGrp LOS	B	B	B	B	B	B	C	F	B	C	B	B
Approach Vol, veh/h		493			244			1172			578	
Approach Delay, s/veh		11.5			11.5			65.6			14.1	
Approach LOS		B			B			E			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		8.3		25.9		8.2		25.9				
Green Ext Time (p_c), s		1.1		0.0		1.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.6									
HCM 6th LOS			D									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	137	192	78	85	62	251	755	72	26	434	72
Future Volume (veh/h)	124	137	192	78	85	62	251	755	72	26	434	72
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	149	209	85	92	67	273	821	78	28	472	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	612	804	682	510	876	587	367	745	631	120	1217	200
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.3	10.7	11.5	13.3	10.5	10.6	30.2	82.5	11.5	31.0	13.2	13.2
Ln Grp LOS	B	B	B	B	B	B	C	F	B	C	B	B
Approach Vol, veh/h		493			244			1172			578	
Approach Delay, s/veh		11.5			11.5			65.6			14.1	
Approach LOS		B			B			E			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.2		5.4		4.4		5.2
Max Q Clear (g_c+I1), s		8.3		25.9		8.2		25.9
Green Ext Time (g_e), s		1.1		0.0		1.9		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.01		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1023		619		1227		858
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2037		3055		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1365		502		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	85	0	28	0	135	0	273
Grp Sat Flow (s), veh/h/ln	0	1023	0	619	0	1227	0	858
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	4.4	0.0	17.3
Cycle Q Clear Time (g_c), s	0.0	6.3	0.0	23.9	0.0	6.2	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1023	0	619	0	1227	0	858
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	22.8	0.0	0.0	0.0	24.0	0.0	17.3
Perm LT Q Serve Time (g_ps), s	0.0	3.4	0.0	0.0	0.0	4.4	0.0	17.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	510	0	120	0	612	0	367
V/C Ratio (X)	0.00	0.17	0.00	0.23	0.00	0.22	0.00	0.74
Avail Cap (c_a), veh/h	0	510	0	120	0	612	0	367
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.5	0.0	30.0	0.0	12.1	0.0	22.2
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.0	0.0	0.2	0.0	8.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	31.0	0.0	12.3	0.0	30.2
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.4	0.0	1.1	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.78
%ile Back of Q (95%), veh/ln	0.0	1.4	0.0	0.8	0.0	2.0	0.0	7.9
%ile Storage Ratio (RQ%)	0.00	0.66	0.00	0.20	0.00	0.37	0.00	0.97
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	79	0	273	0	149	0	821
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.6	0.0	6.6	0.0	3.0	0.0	23.9
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	6.6	0.0	3.0	0.0	23.9
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.10	0.00	0.39	0.00	0.19	0.00	1.10
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	12.8	0.0	10.6	0.0	18.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.1	0.0	64.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	13.2	0.0	10.7	0.0	82.5
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	2.3	0.0	1.1	0.0	8.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	13.3

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.44
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	4.3	0.0	2.0	0.0	31.9
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.21	0.00	0.12	0.00	1.96
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	277	0	209	0	78
Grp Sat Flow (s), veh/h/ln	0	1625	0	1780	0	1585	0	1585
Q Serve Time (g_s), s	0.0	1.8	0.0	6.6	0.0	5.2	0.0	1.9
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	6.6	0.0	5.2	0.0	1.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.84	0.00	0.28	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	699	0	709	0	682	0	631
V/C Ratio (X)	0.00	0.11	0.00	0.39	0.00	0.31	0.00	0.12
Avail Cap (c_a), veh/h	0	699	0	709	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	12.9	0.0	11.2	0.0	11.4
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.6	0.0	13.2	0.0	11.5	0.0	11.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	2.3	0.0	1.6	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	4.3	0.0	2.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.21	0.00	0.18	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	9	191	12	4	248
Future Vol, veh/h	45	9	191	12	4	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	10	208	13	4	270

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	493	215	0	0	221	0
Stage 1	215	-	-	-	-	-
Stage 2	278	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	535	825	-	-	1348	-
Stage 1	821	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	533	825	-	-	1348	-
Mov Cap-2 Maneuver	533	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	566	1348	-
HCM Lane V/C Ratio	-	-	0.104	0.003	-
HCM Control Delay (s)	-	-	12.1	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

HCM 6th Signalized Intersection Summary
1: Lincoln Boulevard & Washington Boulevard

09/15/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	794	679	300	908	370	466	1256	228	236	1639	103
Future Volume (veh/h)	109	794	679	300	908	370	466	1256	228	236	1639	103
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	863	738	326	987	402	507	1365	248	257	1782	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	782	605	311	910	546	559	1927	350	305	1811	114
Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.44	0.44	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	4344	789	3456	4911	308
Grp Volume(v), veh/h	118	863	738	326	987	402	507	1070	543	257	1234	660
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1728	1728	1702	1815
Q Serve(g_s), s	5.0	33.0	33.0	13.5	38.4	24.6	21.6	38.2	38.3	11.0	53.9	54.1
Cycle Q Clear(g_c), s	5.0	33.0	33.0	13.5	38.4	24.6	21.6	38.2	38.3	11.0	53.9	54.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.17
Lane Grp Cap(c), veh/h	184	782	605	311	910	546	559	1510	767	305	1255	669
V/C Ratio(X)	0.64	1.10	1.22	1.05	1.08	0.74	0.91	0.71	0.71	0.84	0.98	0.99
Avail Cap(c_a), veh/h	184	782	605	311	910	546	620	1510	767	369	1255	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	58.5	46.4	68.3	55.8	24.3	61.7	33.8	33.9	67.3	46.9	47.0
Incr Delay (d2), s/veh	7.3	64.5	113.1	64.2	55.6	5.2	16.1	2.8	5.5	13.9	21.7	31.5
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(95%),veh/ln	4.4	31.2	58.0	13.9	33.9	15.2	16.2	23.1	24.1	9.3	34.9	39.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	123.0	159.4	132.5	111.4	29.4	77.8	36.7	39.3	81.2	68.6	78.4
LnGrp LOS	E	F	F	F	F	C	E	D	D	F	E	E
Approach Vol, veh/h		1719			1715			2120			2151	
Approach Delay, s/veh		135.5			96.2			47.2			73.1	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	72.4	19.4	39.0	30.5	61.1	14.0	44.4
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	* 6	6.0
Max Green Setting (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	* 8	38.4
Max Q Clear Time (g_c+I1), s	13.0	40.3	15.5	35.0	23.6	56.1	7.0	40.4
Green Ext Time (p_c), s	0.3	18.4	0.0	0.0	0.7	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		85.0
HCM 6th LOS		F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	794	679	300	908	370	466	1256	228	236	1639	103
Future Volume (veh/h)	109	794	679	300	908	370	466	1256	228	236	1639	103
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	863	738	326	987	402	507	1365	248	257	1782	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	184	782	605	311	910	546	559	1927	350	305	1811	114
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
Prop Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.16	0.44	0.44	0.09	0.37	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	76.8	123.0	159.4	132.5	111.4	29.4	77.8	36.7	39.3	81.2	68.6	78.4
Ln Grp LOS	E	F	F	F	F	C	E	D	D	F	E	E
Approach Vol, veh/h		1719			1715			2120			2151	
Approach Delay, s/veh		135.5			96.2			47.2			73.1	
Approach LOS		F			F			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	4.0	2.0	3.0	2.0	4.0	3.0	2.0
Phs Duration (G+Y+Rc), s	19.2	72.4	19.4	39.0	30.5	61.1	44.4	14.0
Change Period (Y+Rc), s	6.0	* 5.8	5.9	* 6	* 6.2	* 5.8	6.0	* 6
Max Green (Gmax), s	16.0	* 64	13.5	* 33	* 27	* 53	38.4	* 8
Max Allow Headway (MAH), s	3.8	7.1	3.8	4.7	3.8	5.8	4.9	3.8
Max Q Clear (g_c+l1), s	13.0	40.3	15.5	35.0	23.6	56.1	40.4	7.0
Green Ext Time (g_e), s	0.3	18.4	0.0	0.0	0.7	0.0	0.0	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456
Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		4344		3554		4911	3554	
Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		789		1585		308	1585	
Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	257	0	326	0	507	0	0	118
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	11.0	0.0	13.5	0.0	21.6	0.0	0.0	5.0
Cycle Q Clear Time (g_c), s	11.0	0.0	13.5	0.0	21.6	0.0	0.0	5.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	305	0	311	0	559	0	0	184
V/C Ratio (X)	0.84	0.00	1.05	0.00	0.91	0.00	0.00	0.64
Avail Cap (c_a), veh/h	369	0	311	0	620	0	0	184
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	67.3	0.0	68.3	0.0	61.7	0.0	0.0	69.6
Incr Delay (d2), s/veh	13.9	0.0	64.2	0.0	16.1	0.0	0.0	7.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	81.2	0.0	132.5	0.0	77.8	0.0	0.0	76.8
1st-Term Q (Q1), veh/ln	4.9	0.0	6.0	0.0	9.5	0.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.6	0.0	2.8	0.0	1.3	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.70	0.00	1.58	0.00	1.50	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	9.3	0.0	13.9	0.0	16.2	0.0	0.0	4.4
%ile Storage Ratio (RQ%)	1.18	0.00	1.21	0.00	1.03	0.00	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	1070	0	863	0	1234	987	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	38.2	0.0	33.0	0.0	53.9	38.4	0.0
Cycle Q Clear Time (g_c), s	0.0	38.2	0.0	33.0	0.0	53.9	38.4	0.0
Lane Grp Cap (c), veh/h	0	1510	0	782	0	1255	910	0
V/C Ratio (X)	0.00	0.71	0.00	1.10	0.00	0.98	1.08	0.00
Avail Cap (c_a), veh/h	0	1510	0	782	0	1255	910	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	0.0	58.5	0.0	46.9	55.8	0.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	64.5	0.0	21.7	55.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.7	0.0	123.0	0.0	68.6	111.4	0.0
1st-Term Q (Q1), veh/ln	0.0	15.8	0.0	14.8	0.0	22.7	17.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	7.0	0.0	3.8	7.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.40	0.00	1.43	0.00	1.32	1.40	0.00
%ile Back of Q (95%), veh/ln	0.0	23.1	0.0	31.2	0.0	34.9	33.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	2.22	0.00	1.10	8.12	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	20.3	0.0	0.0	19.3	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		T+R		R		T+R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	543	0	738	0	660	402	0
Grp Sat Flow (s), veh/h/ln	0	1728	0	1585	0	1815	1585	0
Q Serve Time (g_s), s	0.0	38.3	0.0	33.0	0.0	54.1	24.6	0.0
Cycle Q Clear Time (g_c), s	0.0	38.3	0.0	33.0	0.0	54.1	24.6	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1585.1	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	24.3	0.0	0.0	13.2	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	1.00	0.00	0.17	1.00	0.00
Lane Grp Cap (c), veh/h	0	767	0	605	0	669	546	0
V/C Ratio (X)	0.00	0.71	0.00	1.22	0.00	0.99	0.74	0.00
Avail Cap (c_a), veh/h	0	767	0	605	0	669	546	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.9	0.0	46.4	0.0	47.0	24.3	0.0
Incr Delay (d2), s/veh	0.0	5.5	0.0	113.1	0.0	31.5	5.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.3	0.0	159.4	0.0	78.4	29.4	0.0
1st-Term Q (Q1), veh/ln	0.0	16.1	0.0	22.4	0.0	24.3	9.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	19.0	0.0	5.9	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	0.00	1.40	0.00	1.30	1.52	0.00
%ile Back of Q (95%), veh/ln	0.0	24.1	0.0	58.0	0.0	39.1	15.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	4.12	0.00	1.23	3.65	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	33.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	85.0
HCM 6th LOS	F

Notes

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1068	203	145	1486	36	0	0	123	0	0	92
Future Vol, veh/h	2	1068	203	145	1486	36	0	0	123	0	0	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1161	221	158	1615	39	0	0	134	0	0	100

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1654	0	0	1382	0	0	-	-	691	-	-	827
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	4.14	-	-	-	-	6.94	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	2.22	-	-	-	-	3.32	-	-	3.92
Pot Cap-1 Maneuver	187	-	-	492	-	-	0	0	387	0	0	270
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	187	-	-	492	-	-	-	-	387	-	-	270
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	19.1	26
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	387	187	-	-	492	-	-	270
HCM Lane V/C Ratio	0.345	0.012	-	-	0.32	-	-	0.37
HCM Control Delay (s)	19.1	24.5	-	-	15.7	-	-	26
HCM Lane LOS	C	C	-	-	C	-	-	D
HCM 95th %tile Q(veh)	1.5	0	-	-	1.4	-	-	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	937	303	525	1118	415	347	112	375	265	130	37
Future Volume (veh/h)	27	937	303	525	1118	415	347	112	375	265	130	37
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1018	329	571	1215	451	250	300	408	214	244	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	298	3554	1585	405	3554	1585	1095	1870	1585	741	1870	1585
Grp Volume(v), veh/h	29	1018	329	571	1215	451	250	300	408	214	244	40
Grp Sat Flow(s),veh/h/ln	298	1777	1585	405	1777	1585	1095	1870	1585	741	1870	1585
Q Serve(g_s), s	4.8	11.8	7.7	48.7	15.3	11.7	10.1	13.3	20.5	7.2	10.4	1.8
Cycle Q Clear(g_c), s	20.2	11.8	7.7	60.5	15.3	11.7	20.5	13.3	20.5	20.5	10.4	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
V/C Ratio(X)	0.13	0.43	0.31	1.91	0.51	0.42	1.23	0.70	1.13	1.53	0.57	0.11
Avail Cap(c_a), veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	6.8	6.1	27.2	7.3	6.8	42.0	32.0	34.8	43.5	30.9	27.5
Incr Delay (d2), s/veh	0.2	0.1	0.2	421.4	0.2	0.3	140.5	9.4	87.5	273.3	5.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	6.9	4.1	72.9	8.6	6.1	20.1	11.3	24.7	23.4	9.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	6.9	6.3	448.6	7.5	7.0	182.4	41.4	122.3	316.7	36.4	28.1
LnGrp LOS	B	A	A	F	A	A	F	D	F	F	D	C
Approach Vol, veh/h		1376			2237			958			498	
Approach Delay, s/veh		6.9			120.0			112.6			156.2	
Approach LOS		A			F			F			F	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		60.5		20.5		60.5				
Max Q Clear Time (g_c+I1), s		22.5		22.2		22.5		62.5				
Green Ext Time (p_c), s		0.0		12.2		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			91.5									
HCM 6th LOS			F									

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	937	303	525	1118	415	347	112	375	265	130	37
Future Volume (veh/h)	27	937	303	525	1118	415	347	112	375	265	130	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1018	329	571	1215	451	250	300	408	214	244	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	230	2389	1066	299	2389	1066	203	426	361	139	426	361
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
Prop Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.6	6.9	6.3	448.6	7.5	7.0	182.4	41.4	122.3	316.7	36.4	28.1
Ln Grp LOS	B	A	A	F	A	A	F	D	F	F	D	C
Approach Vol, veh/h		1376			2237			958			498	
Approach Delay, s/veh		6.9			120.0			112.6			156.2	
Approach LOS		A			F			F			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		25.0		65.0		25.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		20.5		60.5		20.5		60.5
Max Allow Headway (MAH), s		4.5		5.1		5.5		6.3
Max Q Clear (g_c+I1), s		22.5		22.2		22.5		62.5
Green Ext Time (g_e), s		0.0		12.2		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.08		0.00		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1095		298		741		405
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		3554		1870		3554
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	250	0	29	0	214	0	571
Grp Sat Flow (s), veh/h/ln	0	1095	0	298	0	741	0	405
Q Serve Time (g_s), s	0.0	10.1	0.0	4.8	0.0	7.2	0.0	48.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	20.2	0.0	20.5	0.0	60.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1095	0	298	0	741	0	405
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.5	0.0	60.5	0.0	20.5	0.0	60.5
Perm LT Serve Time (g_u), s	0.0	10.1	0.0	45.2	0.0	7.2	0.0	48.7
Perm LT Q Serve Time (g_ps), s	0.0	10.1	0.0	4.8	0.0	7.2	0.0	48.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	203	0	230	0	139	0	299
V/C Ratio (X)	0.00	1.23	0.00	0.13	0.00	1.53	0.00	1.91
Avail Cap (c_a), veh/h	0	203	0	230	0	139	0	299
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	42.0	0.0	12.4	0.0	43.5	0.0	27.2
Incr Delay (d2), s/veh	0.0	140.5	0.0	0.2	0.0	273.3	0.0	421.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	182.4	0.0	12.6	0.0	316.7	0.0	448.6
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	0.3	0.0	3.1	0.0	6.6
2nd-Term Q (Q2), veh/ln	0.0	7.9	0.0	0.0	0.0	10.6	0.0	35.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.62	0.00	1.80	0.00	1.72	0.00	1.75
%ile Back of Q (95%), veh/ln	0.0	20.1	0.0	0.6	0.0	23.4	0.0	72.9
%ile Storage Ratio (RQ%)	0.00	5.10	0.00	0.04	0.00	2.11	0.00	6.98
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	11.9	0.0	0.0	0.0	18.6	0.0	68.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.5

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	300	0	1018	0	244	0	1215
Grp Sat Flow (s), veh/h/ln	0	1870	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	13.3	0.0	11.8	0.0	10.4	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	13.3	0.0	11.8	0.0	10.4	0.0	15.3
Lane Grp Cap (c), veh/h	0	426	0	2389	0	426	0	2389
V/C Ratio (X)	0.00	0.70	0.00	0.43	0.00	0.57	0.00	0.51
Avail Cap (c_a), veh/h	0	426	0	2389	0	426	0	2389
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	32.0	0.0	6.8	0.0	30.9	0.0	7.3
Incr Delay (d2), s/veh	0.0	9.4	0.0	0.1	0.0	5.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.4	0.0	6.9	0.0	36.4	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	3.8	0.0	4.6	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	0.0	0.0	0.7	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.62	0.00	1.80	0.00	1.72	0.00	1.74
%ile Back of Q (95%), veh/ln	0.0	11.3	0.0	6.9	0.0	9.0	0.0	8.6
%ile Storage Ratio (RQ%)	0.00	1.14	0.00	0.72	0.00	0.81	0.00	0.45
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	408	0	329	0	40	0	451
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	20.5	0.0	7.7	0.0	1.8	0.0	11.7
Cycle Q Clear Time (g_c), s	0.0	20.5	0.0	7.7	0.0	1.8	0.0	11.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	361	0	1066	0	361	0	1066
V/C Ratio (X)	0.00	1.13	0.00	0.31	0.00	0.11	0.00	0.42
Avail Cap (c_a), veh/h	0	361	0	1066	0	361	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.8	0.0	6.1	0.0	27.5	0.0	6.8
Incr Delay (d2), s/veh	0.0	87.5	0.0	0.2	0.0	0.6	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	122.3	0.0	6.3	0.0	28.1	0.0	7.0
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	2.2	0.0	0.7	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	8.8	0.0	0.0	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.50	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	24.7	0.0	4.1	0.0	1.3	0.0	6.1
%ile Storage Ratio (RQ%)	0.00	6.26	0.00	1.29	0.00	0.12	0.00	1.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	91.5
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	82	128	476	128	220	171	1721	374	150	2373	97
Future Volume (veh/h)	83	82	128	476	128	220	171	1721	374	150	2373	97
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	89	139	517	139	239	186	1871	407	163	2579	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	129	234	454	476	502	271	2186	1082	214	2664	108
Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	3456	6390	259
Grp Volume(v), veh/h	90	89	139	517	139	239	186	1871	407	163	1946	738
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1728	1609	1824
Q Serve(g_s), s	6.4	6.0	0.5	33.1	7.8	15.8	6.8	43.0	14.2	6.0	51.2	51.5
Cycle Q Clear(g_c), s	6.4	6.0	0.5	33.1	7.8	15.8	6.8	43.0	14.2	6.0	51.2	51.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	123	129	234	454	476	502	271	2186	1082	214	2012	760
V/C Ratio(X)	0.73	0.69	0.59	1.14	0.29	0.48	0.69	0.86	0.38	0.76	0.97	0.97
Avail Cap(c_a), veh/h	136	142	245	454	476	502	271	2186	1082	226	2012	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	59.1	51.8	48.5	39.0	35.8	58.3	33.5	8.8	60.0	37.0	37.1
Incr Delay (d2), s/veh	16.4	11.6	3.5	86.5	0.3	0.7	7.0	4.6	1.0	13.5	13.7	26.2
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(95%),veh/ln	6.3	5.9	7.9	36.5	6.6	10.3	5.9	25.5	15.2	5.5	30.0	36.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	70.7	55.3	134.9	39.3	36.5	65.4	38.1	9.8	73.6	50.7	63.4
LnGrp LOS	E	E	E	F	D	D	E	D	A	E	D	E
Approach Vol, veh/h		318			895			2464			2847	
Approach Delay, s/veh		65.4			93.8			35.5			55.3	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	61.6		39.2	16.1	59.6		15.1
Change Period (Y+Rc), s	* 6.1	* 5.9		6.1	5.9	* 5.4		6.1
Max Green Setting (Gmax), s	* 8.5	* 55		33.1	9.3	* 54		9.9
Max Q Clear Time (g_c+I1), s	8.0	45.0		35.1	8.8	53.5		8.4
Green Ext Time (p_c), s	0.0	8.3		0.0	0.0	0.6		0.2

Intersection Summary		
HCM 6th Ctrl Delay		53.6
HCM 6th LOS		D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	82	128	476	128	220	171	1721	374	150	2373	97
Future Volume (veh/h)	83	82	128	476	128	220	171	1721	374	150	2373	97
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	89	139	517	139	239	186	1871	407	163	2579	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	129	234	454	476	502	271	2186	1082	214	2664	108
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
Prop Arrive On Green	0.07	0.07	0.07	0.25	0.25	0.25	0.08	0.43	0.43	0.06	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	75.7	70.7	55.3	134.9	39.3	36.5	65.4	38.1	9.8	73.6	50.7	63.4
Ln Grp LOS	E	E	E	F	D	D	E	D	A	E	D	E
Approach Vol, veh/h		318			895			2464			2847	
Approach Delay, s/veh		65.4			93.8			35.5			55.3	
Approach LOS		E			F			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	6	5		
Case No	2.0	3.0	9.0	9.0	4.0	2.0		
Phs Duration (G+Y+Rc), s	14.1	61.6	15.1	39.2	59.6	16.1		
Change Period (Y+Rc), s	* 6.1	* 5.9	6.1	6.1	* 5.4	5.9		
Max Green (Gmax), s	* 8.5	* 55	9.9	33.1	* 54	9.3		
Max Allow Headway (MAH), s	3.8	5.0	4.3	4.1	5.3	3.8		
Max Q Clear (g_c+l1), s	8.0	45.0	8.4	35.1	53.5	8.8		
Green Ext Time (g_e), s	0.0	8.3	0.2	0.0	0.6	0.0		
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	1.00		
Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1781		3456		
Through Movement Data								
Assigned Mvmt		2	8	4	6			
Mvmt Sat Flow, veh/h		5106	1870	1870	6390			
Right-Turn Movement Data								
Assigned Mvmt		12	18	14	16			
Mvmt Sat Flow, veh/h		1585	1585	1585	259			
Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	2	0	0
Grp Vol (v), veh/h	163	0	90	517	0	186	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1781	0	1728	0	0
Q Serve Time (g_s), s	6.0	0.0	6.4	33.1	0.0	6.8	0.0	0.0
Cycle Q Clear Time (g_c), s	6.0	0.0	6.4	33.1	0.0	6.8	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	214	0	123	454	0	271	0	0
V/C Ratio (X)	0.76	0.00	0.73	1.14	0.00	0.69	0.00	0.00
Avail Cap (c_a), veh/h	226	0	136	454	0	271	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	60.0	0.0	59.3	48.5	0.0	58.3	0.0	0.0
Incr Delay (d2), s/veh	13.5	0.0	16.4	86.5	0.0	7.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.6	0.0	75.7	134.9	0.0	65.4	0.0	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	2.9	14.6	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.6	10.9	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	1.43	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	5.5	0.0	6.3	36.5	0.0	5.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.70	0.00	3.18	14.25	0.00	2.29	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	15.9	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	6	0	0	0
Lane Assignment		T	T	T	T			
Lanes in Grp	0	3	1	1	3	0	0	0
Grp Vol (v), veh/h	0	1871	89	139	1946	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	1870	1870	1609	0	0	0
Q Serve Time (g_s), s	0.0	43.0	6.0	7.8	51.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	43.0	6.0	7.8	51.2	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2186	129	476	2012	0	0	0
V/C Ratio (X)	0.00	0.86	0.69	0.29	0.97	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2186	142	476	2012	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.5	59.1	39.0	37.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.6	11.6	0.3	13.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.1	70.7	39.3	50.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	17.5	2.9	3.6	19.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.4	0.0	2.6	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.38	1.80	1.80	1.35	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	25.5	5.9	6.6	30.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.57	0.75	1.27	1.48	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	16	0	0	0
Lane Assignment		R	R	R	T+R			
Lanes in Grp	0	1	1	1	1	0	0	0
Grp Vol (v), veh/h	0	407	139	239	738	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	1585	1824	0	0	0
Q Serve Time (g_s), s	0.0	14.2	0.5	15.8	51.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.2	0.5	15.8	51.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	1585.1	1585.1	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	33.1	10.2	8.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	1.00	0.14	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1082	234	502	760	0	0	0
V/C Ratio (X)	0.00	0.38	0.59	0.48	0.97	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1082	245	502	760	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.8	51.8	35.8	37.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	3.5	0.7	26.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.8	55.3	36.5	63.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.7	4.2	6.1	22.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.2	0.1	5.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.52	1.78	1.66	1.31	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	15.2	7.9	10.3	36.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.87	4.04	2.00	1.82	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	135	473	566	184	116	221
Future Vol, veh/h	135	473	566	184	116	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	40
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	514	615	200	126	240

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	815	0	-	0	1266	408
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	551	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	808	-	-	-	161	593
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	808	-	-	-	132	593
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	541	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	55
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	808	-	-	-	132	593
HCM Lane V/C Ratio	0.182	-	-	-	0.955	0.405
HCM Control Delay (s)	10.4	-	-	-	130.9	15.1
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.7	-	-	-	6.5	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	120	266	98	266	71	149	525	63	63	788	259
Future Volume (veh/h)	150	120	266	98	266	71	149	525	63	63	788	259
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	130	289	107	289	77	162	571	68	68	857	282
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	489	804	682	495	1198	314	173	745	631	226	1047	344
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1016	1870	1585	968	2786	729	494	1870	1585	790	2628	863
Grp Volume(v), veh/h	163	130	289	107	182	184	162	571	68	68	579	560
Grp Sat Flow(s),veh/h/ln	1016	1870	1585	968	1777	1739	494	1870	1585	790	1777	1715
Q Serve(g_s), s	7.3	2.6	7.6	4.6	3.9	4.0	6.4	15.9	1.6	4.9	17.4	17.5
Cycle Q Clear(g_c), s	11.3	2.6	7.6	7.1	3.9	4.0	23.9	15.9	1.6	20.8	17.4	17.5
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	489	804	682	495	764	748	173	745	631	226	708	683
V/C Ratio(X)	0.33	0.16	0.42	0.22	0.24	0.25	0.94	0.77	0.11	0.30	0.82	0.82
Avail Cap(c_a), veh/h	489	804	682	495	764	748	173	745	631	226	708	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	10.5	11.9	12.7	10.9	10.9	29.0	15.6	11.3	24.6	16.1	16.1
Incr Delay (d2), s/veh	0.4	0.1	0.4	1.0	0.7	0.8	50.7	4.8	0.1	0.7	7.5	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	1.7	4.3	1.8	2.7	2.7	8.2	11.1	0.9	1.6	12.1	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	10.6	12.3	13.7	11.6	11.7	79.7	20.4	11.4	25.4	23.6	24.0
LnGrp LOS	B	B	B	B	B	B	E	C	B	C	C	C
Approach Vol, veh/h		582			473			801			1207	
Approach Delay, s/veh		12.7			12.1			31.7			23.9	
Approach LOS		B			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1				
Max Green Setting (Gmax), s		* 26		23.9		* 26		23.9				
Max Q Clear Time (g_c+I1), s		9.1		22.8		13.3		25.9				
Green Ext Time (p_c), s		2.5		0.8		2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									
Notes												

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	120	266	98	266	71	149	525	63	63	788	259
Future Volume (veh/h)	150	120	266	98	266	71	149	525	63	63	788	259
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	130	289	107	289	77	162	571	68	68	857	282
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	489	804	682	495	1198	314	173	745	631	226	1047	344
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
Prop Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.9	10.6	12.3	13.7	11.6	11.7	79.7	20.4	11.4	25.4	23.6	24.0
Ln Grp LOS	B	B	B	B	B	B	E	C	B	C	C	C
Approach Vol, veh/h		582			473			801			1207	
Approach Delay, s/veh		12.7			12.1			31.7			23.9	
Approach LOS		B			B			C			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		5.0		5.0
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		* 5.2		5.1		* 5.2		5.1
Max Green (Gmax), s		* 26		23.9		* 26		23.9
Max Allow Headway (MAH), s		5.2		5.3		4.5		5.8
Max Q Clear (g_c+I1), s		9.1		22.8		13.3		25.9
Green Ext Time (g_e), s		2.5		0.8		2.1		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		1.00		0.10		1.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		968		790		1016		494
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2786		2628		1870		1870
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		729		863		1585		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	107	0	68	0	163	0	162
Grp Sat Flow (s), veh/h/ln	0	968	0	790	0	1016	0	494
Q Serve Time (g_s), s	0.0	4.6	0.0	4.9	0.0	7.3	0.0	6.4
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	20.8	0.0	11.3	0.0	23.9
Perm LT Sat Flow (s_l), veh/h/ln	0	968	0	790	0	1016	0	494
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	25.8	0.0	23.9	0.0	25.8	0.0	23.9
Perm LT Serve Time (g_u), s	0.0	23.2	0.0	8.0	0.0	21.8	0.0	6.4
Perm LT Q Serve Time (g_ps), s	0.0	4.6	0.0	4.9	0.0	7.3	0.0	6.4
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	495	0	226	0	489	0	173
V/C Ratio (X)	0.00	0.22	0.00	0.30	0.00	0.33	0.00	0.94
Avail Cap (c_a), veh/h	0	495	0	226	0	489	0	173
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	24.6	0.0	14.5	0.0	29.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.7	0.0	0.4	0.0	50.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.7	0.0	25.4	0.0	14.9	0.0	79.7
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.9	0.0	1.5	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.76
%ile Back of Q (95%), veh/ln	0.0	1.8	0.0	1.6	0.0	2.8	0.0	8.2
%ile Storage Ratio (RQ%)	0.00	0.85	0.00	0.44	0.00	0.53	0.00	1.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	182	0	579	0	130	0	571
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.9	0.0	17.4	0.0	2.6	0.0	15.9
Cycle Q Clear Time (g_c), s	0.0	3.9	0.0	17.4	0.0	2.6	0.0	15.9
Lane Grp Cap (c), veh/h	0	764	0	708	0	804	0	745
V/C Ratio (X)	0.00	0.24	0.00	0.82	0.00	0.16	0.00	0.77
Avail Cap (c_a), veh/h	0	764	0	708	0	804	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	16.1	0.0	10.5	0.0	15.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	7.5	0.0	0.1	0.0	4.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	23.6	0.0	10.6	0.0	20.4
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	6.1	0.0	0.9	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.5	0.0	0.0	0.0	1.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.59	0.00	1.80	0.00	1.63
%ile Back of Q (95%), veh/ln	0.0	2.7	0.0	12.1	0.0	1.7	0.0	11.1
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.59	0.00	0.11	0.00	0.68
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	184	0	560	0	289	0	68
Grp Sat Flow (s), veh/h/ln	0	1739	0	1715	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.0	0.0	17.5	0.0	7.6	0.0	1.6
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	17.5	0.0	7.6	0.0	1.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.42	0.00	0.50	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	748	0	683	0	682	0	631
V/C Ratio (X)	0.00	0.25	0.00	0.82	0.00	0.42	0.00	0.11
Avail Cap (c_a), veh/h	0	748	0	683	0	682	0	631
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	16.1	0.0	11.9	0.0	11.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	7.8	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.7	0.0	24.0	0.0	12.3	0.0	11.4
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	5.9	0.0	2.3	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.5	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.60	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	2.7	0.0	11.9	0.0	4.3	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.58	0.00	0.27	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		22.0						
HCM 6th LOS		C						

Notes

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

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	289	34	11	335
Future Vol, veh/h	24	5	289	34	11	335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	5	314	37	12	364

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	721	333	0	0	351	0
Stage 1	333	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	394	709	-	-	1208	-
Stage 1	726	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	389	709	-	-	1208	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	14.2		0		0.3	
HCM LOS	B					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	422	1208	-
HCM Lane V/C Ratio	-	-	0.075	0.01	-
HCM Control Delay (s)	-	-	14.2	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-