# **Appendix H**

Transportation

# **Appendix H.1**

**Transportation Assessment** 

TRANSPORTATION ASSESSMENT FOR THE SENIOR RESIDENTIAL COMMUNITY AT THE BELLWOOD PROJECT

LOS ANGELES, CALIFORNIA

FEBRUARY 2021 REVISED APRIL 2021

PREPARED FOR

**SBLP CENTURY CITY, LLC** 

**PREPARED BY** 



### TRANSPORTATION ASSESSMENT FOR THE SENIOR RESIDENTIAL COMMUNITY AT THE BELLWOOD PROJECT

### LOS ANGELES, CALIFORNIA

February 2021 Revised April 2021

Prepared for:

SBLP CENTURY CITY, LLC

Prepared by:

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

Ref: J1661

## Table of Contents

1.	Introduction	1
	Project Description	1
	Project Location	
	Study Scope	
	Organization of Report	
2.	Project Context	6
	Study Area	
	Existing Transportation Conditions	
	Future Cumulative Transportation Conditions	
3.	Project Traffic	31
	Project Trip Generation	
	Project Distribution	31
	Project Trip Assignment	
4.	CEQA Analysis of Transportation Impacts	36
	Methodology	36
	Section 4A: Threshold T-1 – Conflicting with Plans, Programs, Ordinances,	
	or Policies Analysis	
	Plans, Programs, Ordinances, and Policies	
	Cumulative Analysis	42
	Section 4B: Threshold T-2.1 – Causing Substantial VMT Analysis	
	Project VMT Analysis	
	Cumulative Analysis	50
	Section 4C: Threshold T-2.2 – Substantially Inducing Additional	
	Automobile Travel Analysis	51
	Section 4D: Threshold T-3 – Substantially Increasing Hazards	
	Due to a Geometric Design Feature or Incompatible Use Analysis	
	Project Access Review	52
	Cumulative Analysis	55
	Section 4E: Freeway Safety Analysis	
	Analysis Methodology	
	Freeway Safety Analysis	57

### Table of Contents, cont.

5.	Non-CEQA Transportation Analysis	58
	Section 5A – Pedestrian, Bicycle, and Transit Assessment Existing Facilities Intensification of Use	59
	Conclusion	
	Section 5B – Project Access and Circulation Assessment Project Access	62
	Operational Evaluation Intersection Queuing Analysis	
	Section 5C – Residential Street Cut-Through Analysis	
	Section 5D – Construction Analysis	
	Construction Evaluation Criteria	
	Proposed Construction Schedule Truck Routes	
	Excavation and Grading Phase	
	Mat Foundation Phase	
	Building Finishes/Architectural Coatings Phase	
	Potential Impacts on Access, Transit, and Parking	75
	Construction Management Plan	77
	Section 5E – Parking	78
	Parking Supply	78
	Vehicle Parking Code Requirements	
	Bicycle Parking Code Requirements	79
6.	Summary and Conclusions	82

References

- Appendix A: Memorandum of Understanding
- Appendix B: Traffic Volume Data
- LADOT Plans, Policy, and Program Consistency Worksheet Vehicles Miles Traveled Analysis Worksheets Appendix C:
- Appendix D:
- HCM Analysis Worksheets Appendix E:

# List of Figures

### <u>NO.</u>

1	Project Site Plan	4
2A	Project Site Location	5
2B	Study Area & Analyzed Intersections	17
3	Existing Intersection Lane Configurations	
4	Existing Intersection Mobility Facilities	19
5	Existing Transportation Facilities & Pedestrian Destinations	20
6	Existing Transit Service	21
7	Existing Conditions (Year 2019) Peak Hour Traffic Volumes	22
8	Locations of Related Projects	23
9	Related Project-Only Peak Hour Traffic Volumes	24
10	Future Without Project Conditions (Year 2023) Peak Hour Traffic Volumes	25
11	Roadway Modal Priorities	
12	Project Trip Distribution	33
13	Project-Only Peak Hour Traffic Volumes	34
14	Existing with Project Conditions (Year 2019) Peak Hour Traffic Volumes	
15	Future with Project Conditions (Year 2023) Peak Hour Traffic Volumes	67

### List of Tables

#### <u>NO.</u>

1	Study Intersections	27
2		
3	Existing Transit Service Patronage Lines within Walking Distance	
4	Related Projects	30
5	Project Trip Generation Estimates	35
6	Project Consistency with Mobility Plan 2035	43
7	Project Consistency with Plan for a Healthy Los Angeles	47
8	Project Consistency with Citywide Design Guidelines	48
9	Intersection Level of Service	68
10	Existing with Project Conditions (Year 2019) Intersection Levels of Service	69
11	Future with Project Conditions (Year 2023) Intersection Levels of Service	70
12	Vehicle Parking Code Requirement	80
13	Bicycle Parking Code Requirement	81

## Chapter 1 Introduction

This study presents the transportation assessment for the proposed eldercare facility project (Project) located at 10328-10384 and 10341-10381 Bellwood Avenue (Project Site) in the *West Los Angeles Transportation Improvement and Mitigation Specific Plan* (Los Angeles Department of City Planning [LADCP], 1997) area of the City of Los Angeles, California (City). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

#### **PROJECT DESCRIPTION**

The Project proposes the development of a 192-unit eldercare facility consisting of 71 independent living units, 75 assisted living units, and 46 memory care units, as well as 50,463 square feet (sf) of ancillary general common areas and amenities for residents. It would replace 112 existing multi-family residential units currently on-site. Up to 140 parking spaces for the Project would be provided within two subterranean parking levels. Access to the Project site would be provided via one full-access driveway on Bellwood Avenue. Additionally, the portion of Bellwood Avenue that currently bifurcates the Project Site would be vacated and realigned as a private street<sup>1</sup>, with through public access maintained from both sides of Bellwood Avenue.

The Project is anticipated to be completed in Year 2023. The conceptual Project Site plan is illustrated in Figure 1.

<sup>&</sup>lt;sup>1</sup> The reconfigured Bellwood Avenue is currently proposed to become a private street; however, in the event Bellwood Avenue remains a public street, the Project would still implement the proposed vacation and realignment and through public access would also be maintained.

#### **PROJECT LOCATION**

As shown in Figure 2A, the Project Site is located in West Los Angeles within City Council District 5 and is approximately 2.2 acres comprised of nine contiguous lots on the south side of Bellwood Avenue, which are assigned APN 4315-018-029 to -037, and four contiguous lots on the north side of Bellwood Avenue, which are assigned APN 4315-018-048, in the Los Angeles County Assessor's records. The Project Site includes parcels located generally north/west and east/south of Bellwood Avenue, as well as the portion of Bellwood Avenue that bifurcates the Project Site. The portion of the Project Site located north/west of Bellwood Avenue is generally bounded by hotel uses to the north, Bellwood Avenue and multi-family residential uses to the east and south, and commercial uses to the west. The portion of the Project Site located by hotel uses and Bellwood Avenue to the north, single-family residential uses to the east and south, and commercial uses to the west.

The Project Site is located approximately 1.50 miles east of the San Diego Freeway (I-405) and approximately 1.80 miles north of the Santa Monica Freeway (I-10). The Project lies within an urbanized area consisting primarily of residential, hotel, and commercial uses. In the vicinity of the Project Site, the West Los Angeles community is served by major streets such as Olympic Boulevard, Santa Monica Boulevard, Pico Boulevard, and Beverly Glen Boulevard. Transit bus service is provided along Olympic Boulevard, Pico Boulevard, Santa Monica Boulevard, Beverly Glen Boulevard, and Century Park West.

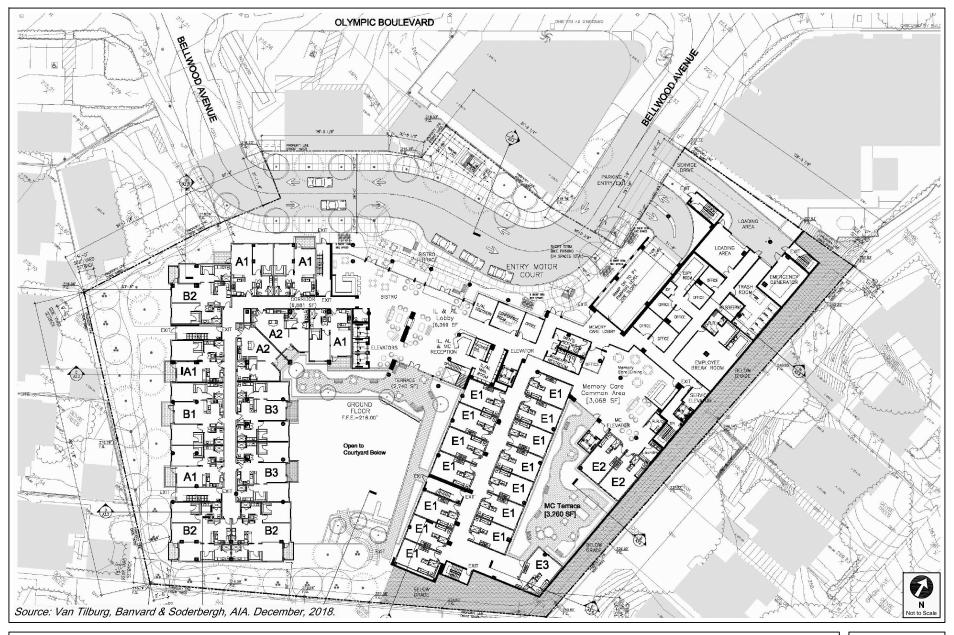
#### STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, July 2020) (the 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., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) that was reviewed and approved by LADOT in March 2019 and is provided in Appendix A.

#### **ORGANIZATION OF REPORT**

This report is divided into six chapters, including this Introduction. Chapter 2 describes the Project context including the existing and future circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 discusses the methodologies used to forecast Project traffic and the Project-related traffic volumes. Chapter 4 presents the CEQA analysis of transportation impacts. Chapter 5 details the non-CEQA transportation analyses. 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.





PROJECT SITE PLAN

FIGURE





PROJECT SITE LOCATION

FIGURE 2A

# 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 transportation infrastructure and conditions of the Study Area including freeway and street systems, and transit service, as well as pedestrian and bicycle circulation, at the time the MOU was approved in March 2019. An inventory of lane configurations, signal phasing, parking restrictions, etc., for the analyzed intersections was also collected.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project Conditions in Year 2023, which corresponds to projected occupancy of the Project.

#### STUDY AREA

As shown in Figure 2B, the Study Area includes a geographic area generally bounded by Santa Monica Boulevard to the north, Avenue of the Stars to the east, Pico Boulevard to the south, and Beverly Glen Boulevard to the west, as well as the transportation infrastructure described below. The intersections within the Study Area were selected in consultation with LADOT based on the following factors identified in the TAG:

- 1. Primary Project driveway(s)
- Intersections at either end of the block on which the Project is located or up to 600 feet from the primary Project driveway(s)
- 3. Unsignalized intersections adjacent to the Project Site that are integral to the Project's site access and circulation plan

4. Signalized intersections in proximity to the Project Site where 100 or more Project trips would be added

As listed in Table 1, a total of eight signalized intersections located within the City were identified for detailed analysis of the above conditions. The existing lane configurations at the analyzed intersections are provided in Figure 3.

#### **EXISTING TRANSPORTATION CONDITIONS**

#### Existing Street System

The existing street system in the Study Area consists of a regional roadway system including Arterial Streets and Local Streets that provide regional, sub-regional, or local access and circulation to the Project Site. These transportation facilities generally provide two to four 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 mph on freeways.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (LADCP, September 2016) (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:

- <u>Freeways</u> 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.
- <u>Arterial Streets</u> are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
  - <u>Boulevards</u> represent the widest Arterial Streets that typically provide regional access to major destinations and include two categories:
    - <u>Boulevard I</u> provides up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a right-of-way (ROW) width of 136 feet and pavement width of 100 feet.

- <u>Boulevard II</u> provides up to three travel lanes in each direction with a target operating speed of 35 mph, with ROW widths varying from 104-110 feet, and pavement widths from 70-80 feet.
- <u>Avenues</u> are typically narrower Arterial Streets that pass through both residential and commercial areas and include three categories:
  - <u>Avenue I</u> 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.
  - <u>Avenue II</u> 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.
  - <u>Avenue III</u> 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.
- <u>Collector Streets</u> 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 65 feet and pavement width of 44 feet.
- <u>Local Streets</u> 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. Local Streets include two categories:
  - o <u>Continuous</u> Local Streets connect to other streets at both ends
  - o Non-continuous Local Streets lead to a dead-end

Primary regional access to the Project Site is provided by I-405 and I-10, which generally run in the north-south and east-west directions, respectively. I-405 is located approximately 1.50 miles west of the Project Site. Access to I-405 is provided via interchanges at Wilshire Boulevard, Santa Monica Boulevard, Sawtelle Boulevard, and Sepulveda Boulevard. I-10 is located approximately 1.80 miles south of the Project Site. Access to I-10 is provided via interchanges at Overland Avenue and Manning Avenue. In proximity to the Project Site, the Study Area is served by Arterial Streets including Beverly Glen Boulevard, Santa Monica Boulevard, Olympic Boulevard, and Pico Boulevard. The following is a brief description of the roadways in the Study Area, including their classifications in the Mobility Plan:

#### <u>Roadways</u>

- <u>Beverly Glen Boulevard</u> Beverly Glen Boulevard is a designated Avenue I and travels in the north-south direction. It is located west of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Travel lanes are generally 11-12 feet wide and the total paved width is 70 feet. Unmetered on-street parking is generally available on both sides of the street within the Study Area.
- <u>Century Park West</u> Century Park West is a designated Avenue II and travels in the northsouth direction. It is located east of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Travel lanes are generally 11-12 feet wide and the total paved width is 56 feet. On-street parking is generally not available on this street within the Study Area.
- <u>Avenue of the Stars</u> Avenue of the Stars is a designated Boulevard II and travels in the north-south direction. It is located east of the Project Site and provides six travel lanes, three lanes in each direction, with left-turn lanes at intersections and a center median. Travel lanes are generally 11-12 feet wide and the total paved width is 80 feet. On-street parking is generally not available on this street within the Study Area.
- <u>Motor Avenue</u> Motor Avenue is a designated Collector Street and travels in the northsouth direction. It is located southeast of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections and a center median. Travel lanes are generally 12 feet wide and the total paved width is 60 feet. Unmetered on-street parking is generally provided on both sides of the street within the Study Area.
- <u>Bellwood Avenue</u> Bellwood Avenue is a designated Local Street and travels in the eastwest direction. It travels through the Project Site and provides access to the existing Project Site driveways. It contains two travel lanes, one lane in each direction. Travel lanes are generally 10 feet wide and the total paved width is 36 feet. Unmetered on-street parking with permit is available on both sides of the street within the Study Area.
- <u>Santa Monica Boulevard</u> Santa Monica Boulevard is a designated Boulevard II and travels in the east-west direction. Within the Study Area, Santa Monica Boulevard is identified as State Route 2. It is located north of the Project Site and provides six travel lanes, three lanes in each direction, with left-turn lanes at intersections. Travel lanes are generally 11-12 feet wide and the total paved width is 80 feet. On-street parking is generally not available on Santa Monica Boulevard within the Study Area. In addition, an auxiliary one-way eastbound travel lane runs adjacent to Santa Monica Boulevard, where metered on-street parking is provided on both sides within the Study Area.
- <u>Olympic Boulevard</u> Olympic Boulevard is a designated Boulevard II and travels in the east-west direction. It is located north of the Project Site and provides seven travel lanes, three eastbound lanes and four westbound lanes, with left-turn lanes at intersections. Travel lanes are generally 10-11 feet wide and the total paved width is 80 feet. Unmetered onstreet parking is generally available on the north side of the street, with afternoon peak hour restrictions within the Study Area.
- <u>Pico Boulevard</u> Pico Boulevard is a designated Avenue I and travels in the east-west direction. It is located south of the Project Site and provides six travel lanes, three lanes in

each direction, with left-turn lanes at intersections. Travel lanes are generally 11-12 feet wide and the total paved width is 70 feet. Unmetered on-street parking is generally provided on the north side of the street with afternoon peak hour restrictions, and on the south side of the street with morning and afternoon peak hour restrictions within the Study Area.

As required in the TAG, an inventory was collected of facilities serving pedestrians, bicyclists, and transit riders within the Study Area. The existing intersection mobility facilities at the study intersections are shown in Figure 4. The existing transportation facilities within the Study Area are shown in Figure 5.

#### **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 WalkScore.com 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 80 points<sup>2</sup>.

Currently along the Project frontage, sidewalks along both sides of Bellwood Avenue serving as routes to the Project Site provide connectivity, connecting to pedestrian crossing at intersections within the Study Area. The nearby signalized study intersections provide pedestrian facilities, including curb ramps on all approaches, pedestrian phasing, high-visibility crosswalk striping, and Americans with Disabilities Act (ADA) accessible curb ramps, as shown in Figure 4. In addition, the signalized intersection of Century Park West & Olympic Boulevard provides pedestrian facilities including marked pedestrian crossings on all approaches, pedestrian phasing, and ADA accessible ramps.

Pedestrian destinations within the Study Area of the Project Site are also shown in Figure 5, including local commercial and residential uses located north and east of the Project Site along Olympic Boulevard.

<sup>&</sup>lt;sup>2</sup> Walk Score (www.walkscore.com) rates the Project Site with a score of 80 of 100 possible points (scores accessed on August 3, 2020 for 10341 Bellwood Avenue). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

#### Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network (HIN), a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. It should be noted that in proximity to the Study Area, Santa Monica Boulevard west of Beverly Glen Boulevard has been identified in the HIN as shown in Figure 5. However, the Project is not located along a HIN corridor.

#### **Existing Bicycle System**

Based on 2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element (Los Angeles Department of City Planning, 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, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. 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 low volume arterial streets. Bicycle routes with shared lane markings, or "sharrows", remind bicyclists to ride farther from parked cars to prevent collisions, increase awareness of motorists that bicycles may be in the travel lane, and show bicyclists the correct direction of travel.

The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan. The Mobility Plan consists of a Bicycle Enhanced Network (Low-Stress Network) (BEN) and a Bicycle Lane Network (BLN). The BEN is a subset of and supplement to the 2010 Bicycle Plan and is comprised of a network of streets that prioritize bicyclists and provide bicycle paths and protected bicycle lanes (Class IV). Class IV protected bicycle lanes including cycle tracks, bicycle traffic signals, and demarcated areas to facilitate turns at intersections and along neighborhood streets, provide further protection from other travel lanes. Class IV networks often provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection

crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. Once implemented, these facilities would offer a safer environment for both cyclists and motorists. The BLN consists of Class II bicycle lanes with striped separation from motorized vehicle traffic.

Within the immediate vicinity of the Project Site, Class II bicycle lanes are provided along Motor Avenue and Santa Monica Boulevard west of Avenue of the Stars as shown in Figure 5.

#### Existing Transit System

Figure 6 illustrates the existing transit service routes in and around the Study Area, which is served by bus lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro), Culver CityBus, Santa Monica Big Blue Bus, Antelope Valley Transit Authority, Santa Clarita Transit, and LADOT Commuter Express.

Table 2 summarizes the bus lines operating in and around the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average frequency of transit service during the peak hours was derived from schedule information from each respective transit provider for the stop nearest the Project Site, as well as detailed trip data from April 2019 provided by Metro and schedule information from each respective transit provider for the stop nearest the Project Site, as

Bus stops that serve the Project Site (i.e., within 0.25 miles walking distance) are currently provided along Olympic Boulevard at Beverly Glen Boulevard, Kerwood Avenue, and Century Park West. Table 3 summarizes the available capacity of the Culver City and Santa Monica bus systems during the morning and afternoon peak hours, respectively, based on the frequency of service of each line, detailed ridership data provided by the transit provider, and the maximum seated and standing capacity of each bus. As shown in Table 3, based on ridership data from March 2019 provided by Culver City Bus and Santa Monica Big Blue Bus, the transit lines within a 0.25-mile walking distance of the Project Site have available capacity for approximately 660 additional riders during the morning peak hour and 636 riders during the afternoon peak hour.

#### **Existing Traffic Volumes**

Intersection turning movement counts during the typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) commuter peak periods were conducted at the eight study intersections in April 2019 prior to the State and City's response to COVID-19 and while local schools were in session, businesses were operational, etc. Additional historical traffic counts at both intersections of Bellwood Avenue at Olympic Boulevard from April 2006 were also reviewed and considered. The existing intersection peak hour traffic volumes, representing Existing Conditions in Year 2019, are illustrated in Figure 7. Traffic count summaries are provided in Appendix B.

#### FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

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

"(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or

"(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes increases to traffic from future projects (option "A" above, the "Related Projects") and from regional growth projections (option "B" above, or ambient growth). 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 levels have historically been projected to increase as a result of regional growth and development. Based on discussions with LADOT through the MOU process, an ambient growth factor of 1% per year compounded annually was applied to the Existing Conditions traffic volumes to provide a conservative estimate of future background conditions for Year 2023. The total adjustment applied over the four-year period is 4.06%.

#### **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 is evaluated within the context of past, present, and probable future developments capable of producing cumulative impacts.

The list of Related Projects is based on information provided by LADCP and LADOT in January 2019, as well as recent studies of development projects in the area. The Related Projects are detailed in Table 4 and their approximate locations shown in Figure 8. Though the buildout years of many of these Related Projects are uncertain and may occur 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 2023. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is conservative and, by itself, substantially overestimates the actual traffic volume growth in the West Los Angeles area that would likely occur in the next three years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project Condition is even more conservative.

Using these assumptions, the potential traffic impacts of the Project were evaluated. Estimating the Related Projects' traffic volume contributions to the study intersections involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

**Trip Generation.** Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation Manual, 10<sup>th</sup> Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates summarized in Table 4 are conservative in that they do not in every case account for any 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.

**Trip Distribution.** The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees/residents and potential patrons 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.

<u>Traffic Assignment</u>. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 9 shows the peak hour traffic volumes associated with these Related Projects at the study intersections.

#### Future without Project Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected Project completion year of 2023. As discussed above, this is a conservative approach as many of the Related Projects may already be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., ambient traffic growth and Related Project traffic growth added to existing traffic volumes) for Year 2023 and are shown in Figure 10 for the eight study intersections.

#### 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 proposed Project. Any roadway improvement that would result in changes to the physical configuration at the study intersections would be incorporated into the analysis. However, these improvements depend on the construction of the development projects, which are not guaranteed to be built or may not be completed by Project buildout. Therefore, this analysis conservatively concluded that these improvements would not be implemented by Year 2023.

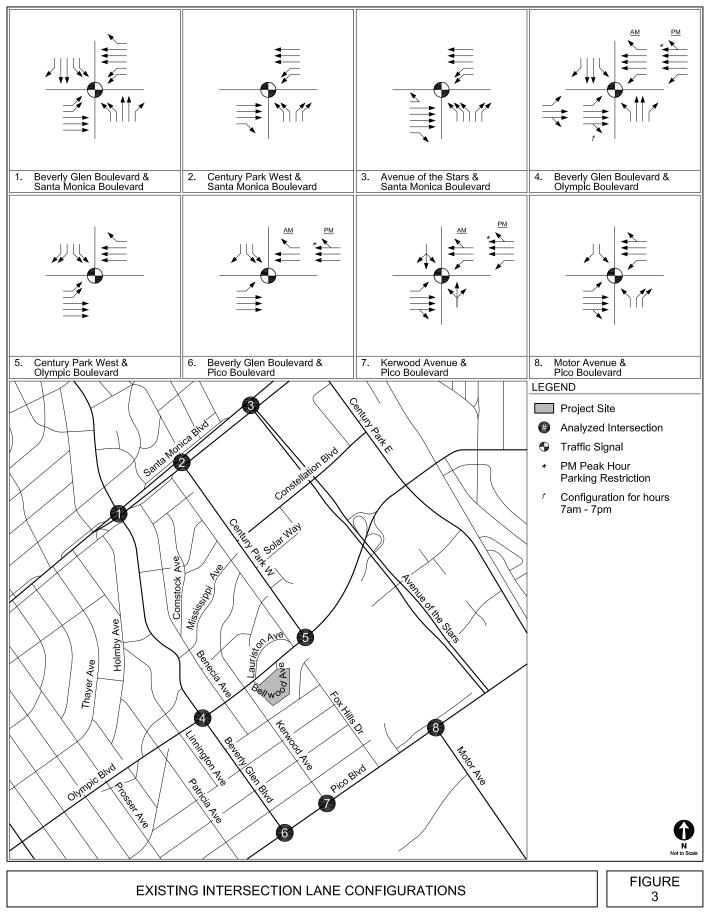
**Mobility Plan.** In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The 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 as a result of the Mobility Plan. However, as detailed below, the mobility-enhanced networks included corridors within the Study Area and are depicted in Figure 11:

- <u>Transit Enhanced Network (TEN)</u>: 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. Pico Boulevard and Santa Monica Boulevard within the Study Area have been designated as part of the TEN.
- <u>Neighborhood Enhanced Network (NEN)</u>: 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. The NEN designates Tennessee Avenue as part of the network.
- <u>BEN / BLN</u>: Santa Monica west of Century Park East within the Study Area has been identified as part of the BEN, and Avenue of the Stars, Pico Boulevard, and Beverly Glen Boulevard north of Santa Monica Boulevard as part of the BLN.
- <u>Pedestrian Enhanced District (PED)</u>: 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 pedestrianoriented design features. Beverly Glen Boulevard north of La Grange Avenue and between Louisiana Avenue and Ilona Avenue, Olympic Boulevard west of Benecia Avenue and east of Bellwood Avenue, Century Park West, Avenue of the Stars, Constellation Boulevard, and Santa Monica Boulevard are designated as part of the PED.

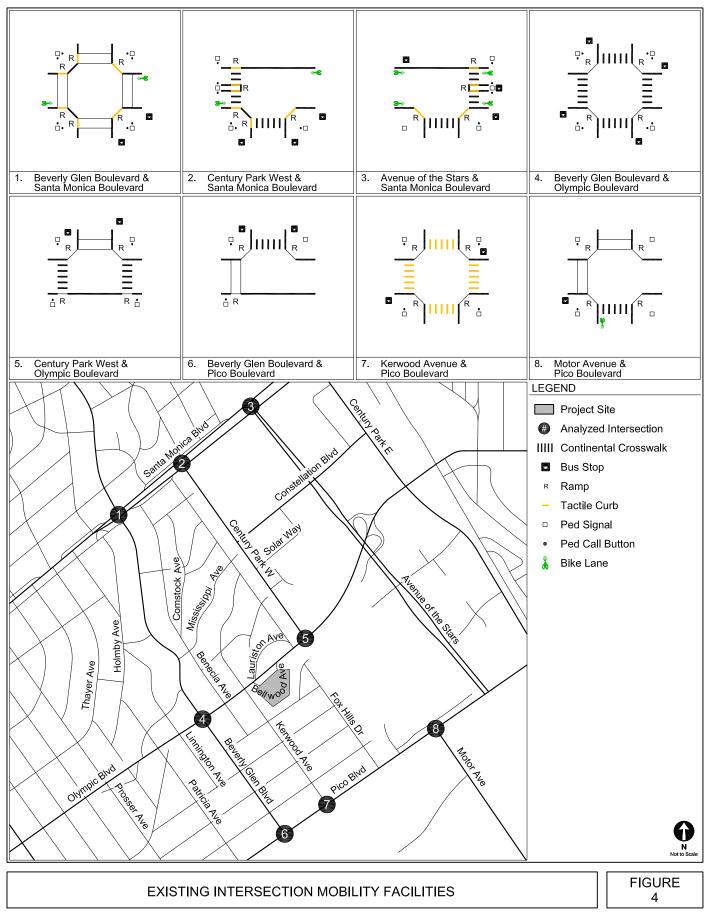








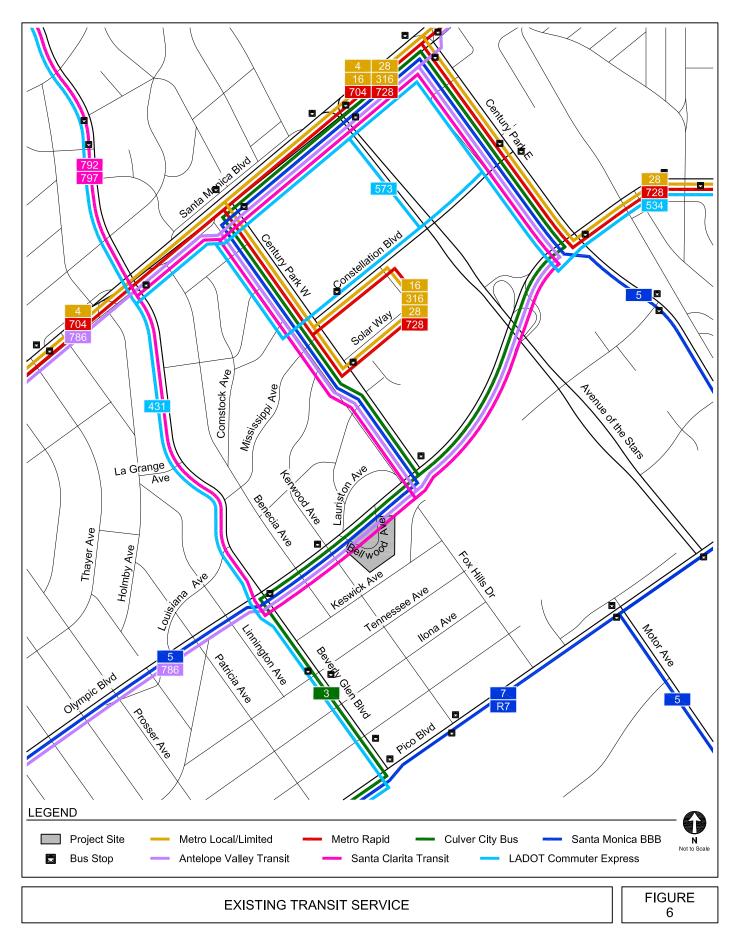




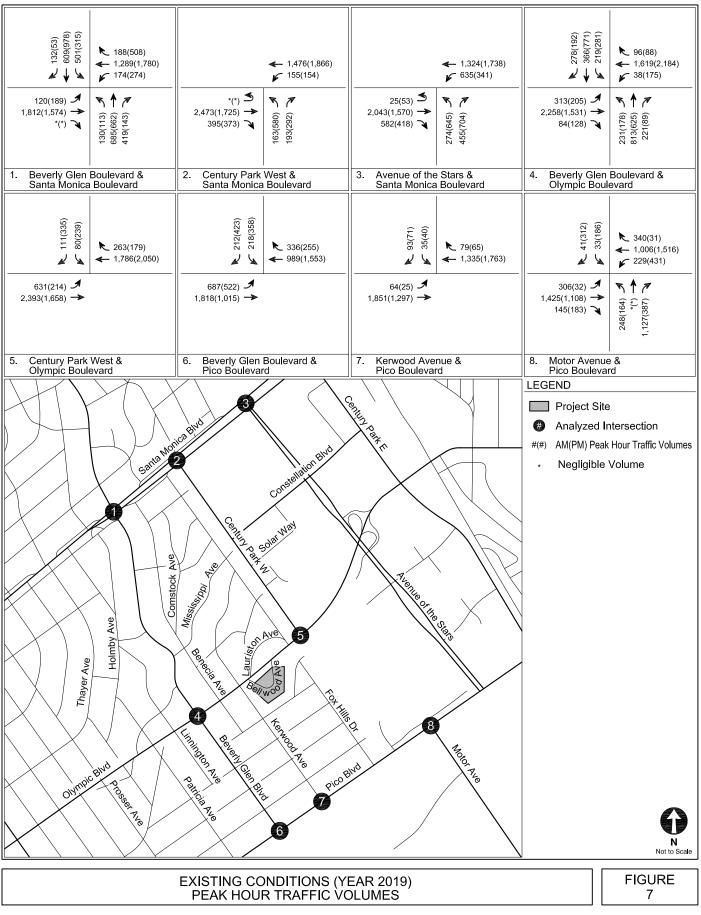








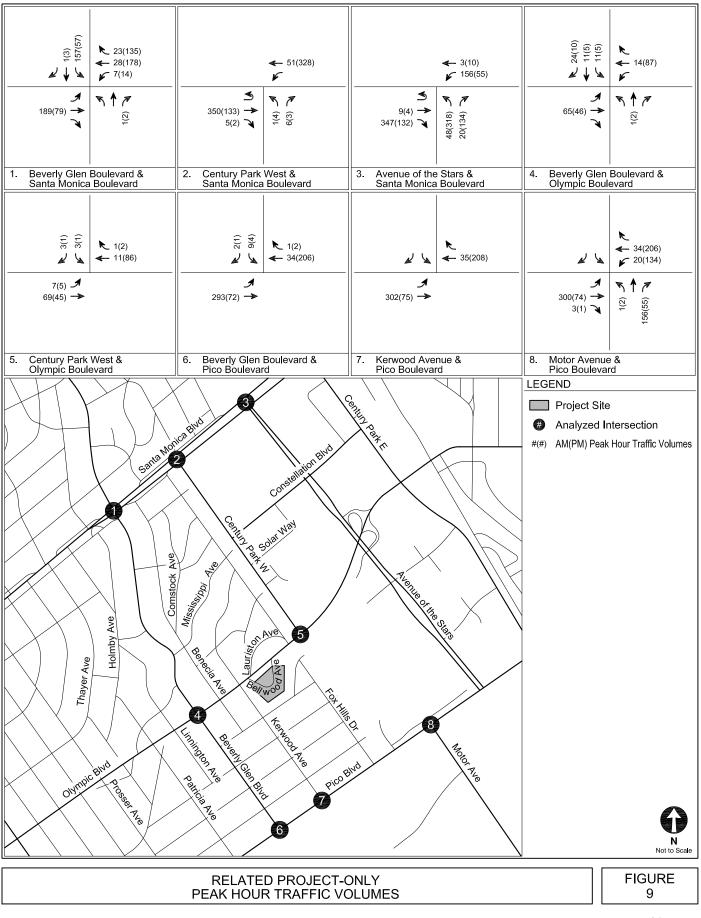




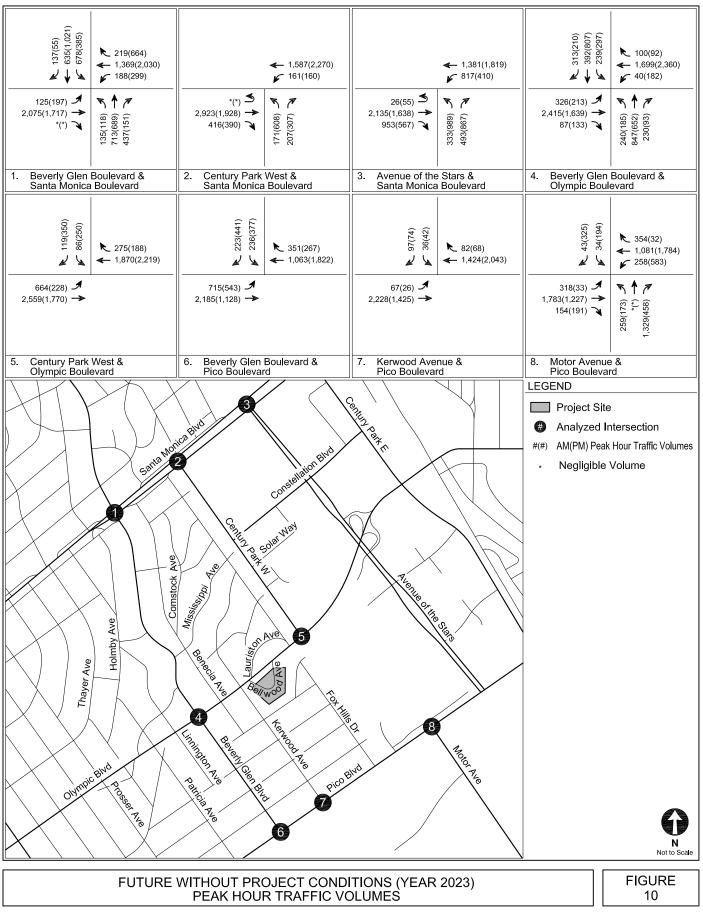




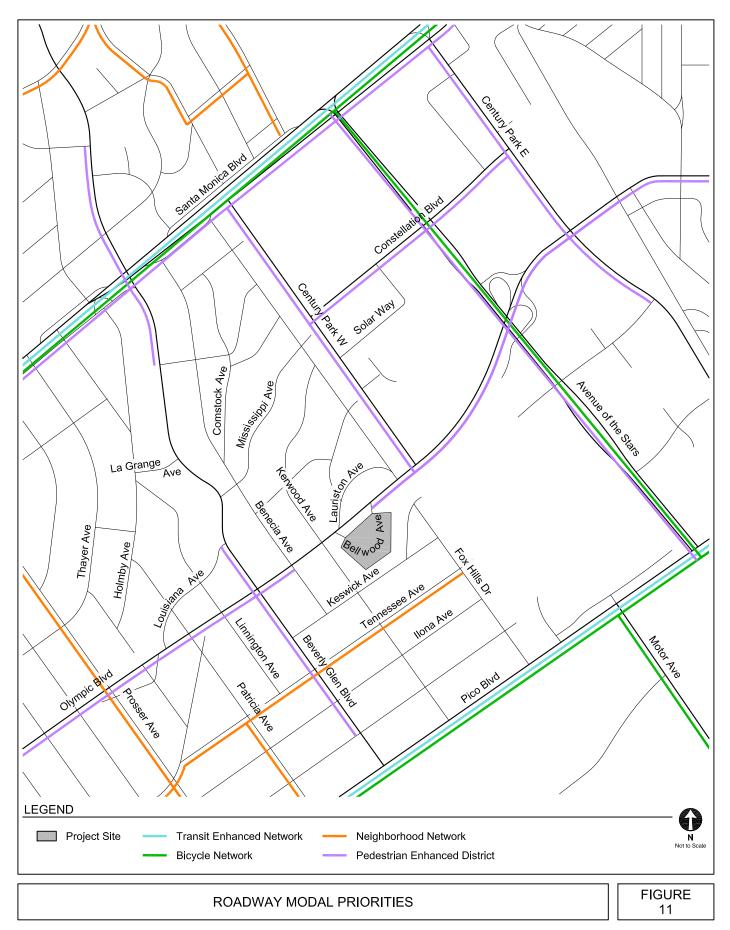












#### TABLE 1 STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
1.	Beverly Glen Boulevard	Santa Monica Boulevard	City of Los Angeles / Caltrans
2.	Century Park W	Santa Monica Boulevard	City of Los Angeles / Caltrans
3.	Avenue of the Stars	Santa Monica Boulevard	City of Los Angeles / Caltrans
4.	Beverly Glen Boulevard	Olympic Boulevard	City of Los Angeles
5.	Century Park W	Olympic Boulevard	City of Los Angeles
6.	Beverly Glen Boulevard	Pico Boulevard	City of Los Angeles
7.	Kerwood Avenue	Pico Boulevard	City of Los Angeles
8.	Motor Avenue	Pico Boulevard	City of Los Angeles

	TABLE 2	
EXISTING	TRANSIT	SERVICE

	Densides Dente and Oradas Area	Service		Average Headway (minutes)			
Provider, Route, and Service Area			Hours of Operation	AM Peak Period		PM Peak Period	
Metro				NB/EB	SB/WB	NB/EB	SB/WB
4	Downtown Los Angeles - Santa Monica via Santa Monica Boulevard	Local	24-Hour	13	13	11	13
16	Downtown Los Angeles - Century City via 3rd Street	Local	4:15 AM - 1:30 AM	18	11	15	16
28	Downtown Los Angeles - Eagle Rock - Century City via Olympic Blvd and Eagle Rock Blvd	Local	6:30 AM - 10:00 PM	8	8	8	9
316	Downtown Los Angeles - Century City via 3rd Street	Limited	6:15 AM - 7:00 PM	9	11	11	10
704	Downtown Los Angeles - Santa Monica via Santa Monica Boulevard	Rapid	6:00 AM - 12:00 AM	15	12	13	13
728	Downtown Los Angeles - Century City via West Olympic Boulevard	Rapid	5:00 AM - 9:00 PM	13	13	15	14
Culver CityBus (CC)				NB/EB	SB/WB	NB/EB	SB/WB
3	3 Crosstown Culver City		5:30 AM - 11:30 PM	16	14	16	16
Santa Mon	Santa Monica Big Blue Bus (BBB)			NB/EB	SB/WB	NB/EB	SB/WB
5	Santa Monica - Century City - Palms Station Expo Line	Local	6:00 AM - 9:30 PM	27	27	24	22
7	Downtown Santa Monica - Rimpau Transit Center	Local	5:00 AM - 12:30 AM	15	15	15	15
R7	Downtown Santa Monica - Koreatown	Rapid	5:30 AM - 11:15 PM	10	10	10	10
Antelope V	alley Transit Authority (AVTA)			NB/EB	SB/WB	NB/EB	SB/WB
786	Lancaster/Palmdale - Century City/West Los Angeles	Express	4:00 AM - 7:30 PM	N/A	20	24	N/A
Santa Clari	ita Transit (SC)			NB/EB	SB/WB	NB/EB	SB/WB
792	Santa Clarita - Century City - UCLA - Westwood	Express	7:00 AM - 6:30 PM	30	N/A	N/A	30
797	Santa Clarita - Century City - UCLA - Westwood	Express	5:15 AM - 9:00 PM	N/A	20	30	N/A
LADOT Co	LADOT Commuter Express (CE)			NB/EB	SB/WB	NB/EB	SB/WB
431	Westwood - Palms - Downtown Los Angeles	Express	6:30 AM - 7:30 PM	30	N/A	N/A	30
534	Westwood - Century City - West Los Angeles - Downtown Los Angeles	Express	7:00 AM - 6:30 PM	23	N/A	N/A	23
573	Westwood - Encino - Mission Hills - Century City	Express	5:30 AM - 8:00 PM	[a]	9	9	[a]

Notes

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT: Los Angeles Department of Transportation AM Peak from 6 AM - 10 AM

PM Peak from 3 PM - 7 PM

[a] LADOT CE 573 provides one stop in the northbound direction during the AM peak period and southbound direction during the PM peak period.

#### TABLE 3 EXISTING TRANSIT SERVICE PATRONAGE LINES WITHIN WALKING DISTANCE [a]

AM Peak Period									
Provider	Route	Number of Runs During Peak Hour [b]	Canacity	Average Load <sup>[d]</sup>	Load Factor (Maximum Load / Capacity)	Residual Capacity per Run	Residual Capacity in Peak Hour [e]		
Culver City	3	10	50	2	0.04	48	480		
Santa Monica BBB	5	5	50	14	0.28	36	180		
Total Residual Capacity in Peak Hour - Bus Line									

PM Peak Period									
Provider Route		Number of Runs During Peak Hour <sup>[b]</sup>	Canacity			Residual Capacity per Run	Residual Capacity in Peak Hour [e]		
Culver City	3	9	50	6	0.12	44	396		
Santa Monica BBB	5	6	50	10	0.20	40	240		
Total Residual Capacity in Peak Hour - Bus Line									

#### Notes:

[a] Lines within a 0.25-mile walking distance from the Project Site.

[b] Number of runs in both directions combined during peak hour.

[c] Capacity assumptions based on discussions with agencies: Culver City Bus - 40 seated / 50 seated and standing.

Santa Monica Big Blue Bus - 40 seated / 50 seated and standing.

[d] Average Load is the average number of people per bus in the peak direction based on ridership data provided by Culver CityBus and Santa Monica Big Blue Bus, March 2019.

[e] Maximum residual capacity in peak hours = (Maximum residual capacity per run) x (number of peak hour runs).

#### TABLE 4 RELATED PROJECTS

		Address	Use		Trip Generation [a]						
No.	Project				AM Peak Hour		PM Peak Hour				
				Daily	In	Out	Total	In	Out	Total	
1.	Westfield Century City NCP Project [b]	10250 W Santa Monica Boulevard	358,881 sf shopping center, 262 condominium units, and -289,460 sf office	5,922	(109)	(68)	(177)	174	190	364	
2.	Century City Center [c]	1950 S Avenue of the Stars	725,830 sf office, 4,120 sf ancillary retail, and 1,300 sf mobility hub	4,603	604	83	687	103	501	604	
3.	26 Apt to 91 Apt or 116 Apt	10306 W Santa Monica Boulevard	91 or 116 apartments units	432	8	38	46	29	15	44	
4.	Century Plaza (Hyatt Regency Hotel)	2025 S Avenue of the Stars	193 condo units, 240-room hotel, 117,647 sf office, 93,814 sf retail, 16,800 sf spa/fitness, and 15,463 sf restaurant	3,690	25	16	41	263	285	548	
5.	Apartments	10400 W Santa Monica Boulevard	96 apartment units	702	10	43	53	32	18	50	
6.	Fox Studio Master Plan 2016	10201 W Pico Boulevard	additional 1.1 million sf studio building	8,153	915	94	1,009	112	479	591	

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in January 2019, Department of City Planning, and recent traffic studies prepared in the area.

[b] For the purposes of providing a more conservative analysis, the related project information reflects the project presented in the *Environmental Impact Report for the New Century Park Project* (Matrix Environmental, Certified June 2009). Since the certification of the EIR, the project was reduced by approximately 70,000 sf and 242 residential units, thus, generating fewer trips during the weekday morning and afternoon peak hours.

[c] For the purposes of providing a more conservative analysis, the related project information reflects the modified Century City Center project that was entitled in January 2015 as part of the Final Subsequent Environmental Impact Report. An alternative residential project was also entitled for this site, which was projected to generate fewer weekday morning and afternoon peak hour trips than the modified Century City project.

# Chapter 3 Project Traffic

Trip generation estimates, trip distribution patterns and trip assignments were prepared for the Project.

# **PROJECT TRIP GENERATION**

The number of trips expected to be generated by the Project were estimated using rates published in *Trip Generation Manual*, 10<sup>th</sup> Edition. These rates are based on surveys of similar land uses at sites around the country and are used to calculate the number of vehicle trips traveling to and from the Project Site based on the size of each land use component.

The Project Site is located within walking distance (0.25 miles) of local bus stops. Therefore, appropriate trip generation reductions to account for public transit usage and walking arrivals were made for the existing residential uses in consultation with LADOT and in accordance with the TAG.

As shown in Table 5, after accounting for the removal of the existing uses currently on-site, the Project is estimated to generate 16 fewer net morning peak hour trips (10 inbound, -26 outbound) and nine fewer net afternoon peak hour trips (-16 inbound, seven outbound).

# **PROJECT TRIP DISTRIBUTION**

The geographic distribution of trips generated by the Project is dependent on the location of employment and residential centers from which visitors to the Project would be drawn, characteristics of the street system serving the Project Site, the level of accessibility of the routes to and from the Project Site, existing intersection traffic volumes, and the location of the proposed driveways, as well as input from LADOT staff.

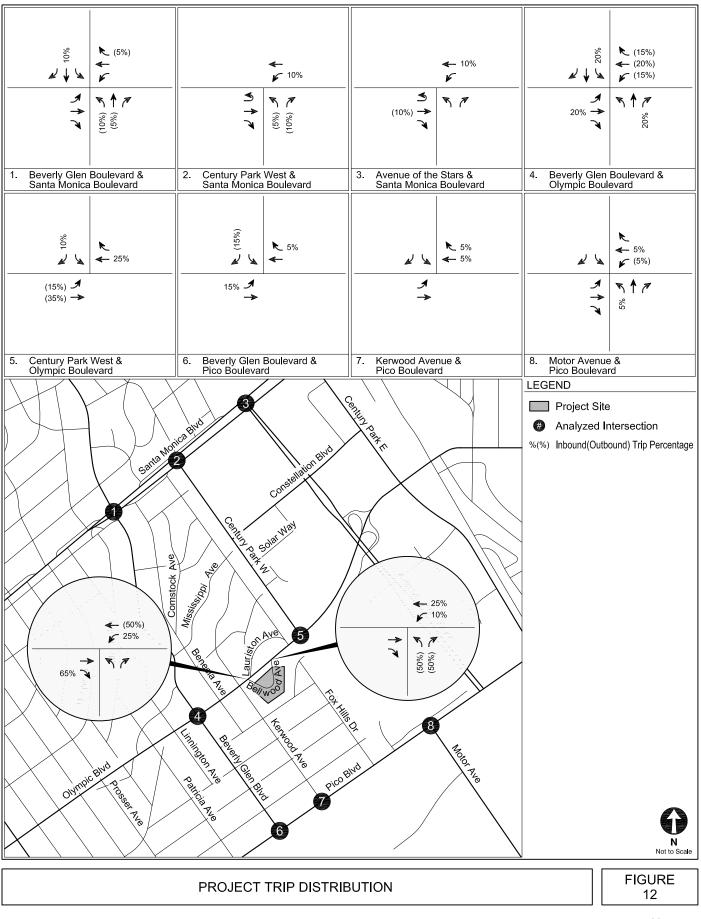
The intersection-level trip distribution patterns for the Project are shown in Figure 12. Generally, the pattern is as follows:

- 10% to/from the north
- 40% to/from the east
- 15% to/from the south
- 35% to/from the west

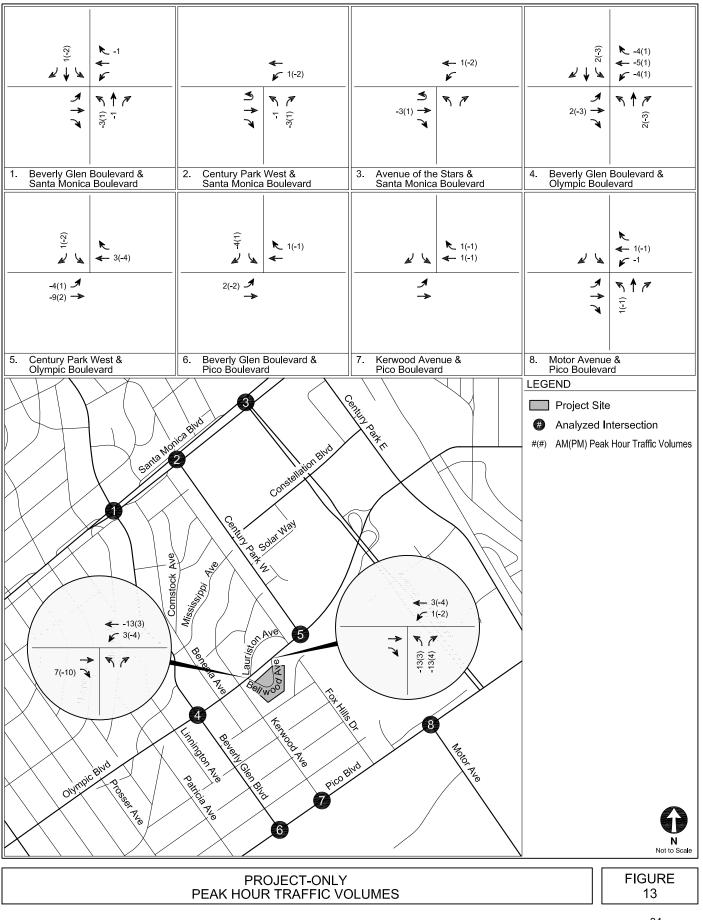
# **PROJECT TRIP ASSIGNMENT**

The Project trip generation estimates summarized in Table 5 and the trip distribution pattern shown in Figure 12 were used to assign the Project-generated traffic through the study intersections and remove the traffic generated by the existing uses on-site. Figure 13 illustrates the combined net new traffic generated from the Project at the study intersections during typical weekday morning and afternoon peak hours.









#### TABLE 5 PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE Land Use	Size	AM Peak Hour			PM Peak Hour		
		Size	In	Out	Total	In	Out	Total
Trin Ormanitian Dataset								
<u>Trip Generation Rates</u> [a] Multifamily Housing (Low-Rise)	220	per du	23%	77%	0.46	63%	37%	0.56
Congregate Care Facility	253	per du	23 <i>%</i> 60%	40%	0.40	53%	47%	0.30
Assisted Living	253	per bed	63%	37%	0.07	38%	62%	0.10
	234		0378	57 70	0.15	5078	0270	0.20
Proposed Project								
Independent Living	253	71 du	3	2	5	7	6	13
Assisted Living [b]	254	99 beds	12	7	19	10	16	26
Memory Care [c]	254	46 beds	6	3	9	5	7	12
Subtotal Proposed Project Trips			21	12	33	22	29	51
Existing Uses to be Removed								
Multifamily Housing (Low-Rise)	220	112 du	12	40	52	40	23	63
Less Walk-In/Transit Reduction - 5% [d]			(1)	(2)	(3)	(2)	(1)	(3)
Subtotal - Existing Residential			11	38	49	38	22	60
TOTAL NET NEW PROJECT TRIPS			10	(26)	(16)	(16)	7	(9)

Notes

1,000 square feet = ksf.

[a] Source: Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

[b] The 75 assisted living guestrooms include 51 one-bedroom units and 24 two-bedroom units.

[c] The 46 memory care guestrooms consist only of studio units.

[d] Per LADOT's *Transportation Assessment Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit/walk-in reduction is applied to account for transit usage and walking visitor arrivals from the adjacent commercial developments.

# 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 proposed Project may have with adopted City plans and policies and the improvements associated with the potential conflicts and provides the results of a Project vehicle miles traveled (VMT) analysis that addresses State requirements under *State of California Senate Bill 743* (Steinberg, 2013) (SB 743).

# METHODOLOGY

SB 743, made effective 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 shifted 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 Vehicle Miles Traveled (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-4D. In addition, a CEQA safety analysis of California Department of Transportation (Caltrans) facilities for the Project is provided in Section 4E.

# Section 4A: Threshold T-1

# Conflicting 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* was completed for the Project and provided in Appendix C.

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. The Project is 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. 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 five goals that define the City's mobility priorities:

• <u>Safety First</u>: Design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode of choice.

- <u>World Class Infrastructure</u>: A well-maintained and connected network of streets, paths, bikeways, trails, that more provides Angelenos with the optimum variety of mode choices.
- <u>Access for All Angelenos</u>: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.
- <u>Collaboration, Communication, and Informed Choices</u>: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the future. The amount of information made available by new technologies must be managed responsibly in the future.
- <u>Clean Environments and Healthy Communities</u>: 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 Mobility Plan is provided in Table 6. As detailed in Chapter 2, the Mobility Plan identifies 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 support the implementation of the Mobility Plan policies.

Vehicular access to the Project's parking would be provided via one driveway from Bellwood Avenue, a designated Local Street. With development of the Project, the portion of Bellwood Avenue that bifurcates the Project Site would be vacated and realigned as a private street. As further detailed in Section 5E, the Project would provide off-street parking to satisfy Los Angeles Municipal Code (LAMC) requirements.

The Project would also enhance pedestrian access within and around the Project Site by widening pedestrian walkways and planting new street trees along Bellwood Avenue. Secured bicycle parking facilities within the Project Site would also be provided. These measures would promote active transportation modes such as biking and walking, thereby reducing the Project VMT per capita for residents and employees compared to the average for the area, as demonstrated in Section 4B. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project driveway is not proposed along a street with an existing bicycle facility.

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) (Plan for a Healthy Los Angeles) 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 7. The Project prioritizes safety and access for all individuals utilizing the site by complying with all ADA requirements and providing direct connections to pedestrian amenities along Olympic Boulevard. Further, the Project supports healthy lifestyles by providing bicycle amenities and enhancing the pedestrian environment by providing shade trees, wider pedestrian paths, and landscaping for a more comfortable and inviting environment for pedestrians.

Thus, the Project would be consistent with the goals of Plan for a Healthy Los Angeles.

### LAMC Section 12.21.A.16 (Bicycle Parking)

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. As further detailed in Section 5E, the Project would provide a total of 24 short-term and 48 long-term spaces to satisfy the LAMC requirements for on-site bicycle parking supply.

#### LAMC Section 12.26J Transportation Demand Management (TDM) Ordinance

LAMC Section 12.26J, the TDM Ordinance (1993) establishes TDM requirements for nonresidential projects, in addition to non-residential components of the mixed-use projects in excess of 25,000 sf. The Project is a senior residential development; therefore, the requirements of LAMC Section 12.26J do not apply to the Project.

### 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 street segments as part of the HIN where City projects will be targeted. The Project Site is not located along an HIN, and no Vision Zero safety improvements are planned adjacent to the Project Site.

Nonetheless, the Project improvements to the pedestrian environment would not preclude future Vision Zero safety improvements by the City. 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 for Residential, Commercial, and Industrial Development

*Citywide Design Guidelines* (Los Angeles City Planning Urban Design Studio, October 2019) identifies urban design principles to guide architects and developers in designing high-quality projects that meet the City's functional, aesthetic, and policy objectives and help foster a sense of community. Specifically, *Citywide Design Guidelines* recommends a "Pedestrian-First Design" approach organized around the following guidelines:

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

As detailed in Table 8, the Project design includes pedestrian connections and bicycle amenities throughout the Project Site. In addition, adequate sidewalks would be provided, in accordance with the City's Living Streets design considerations. Trees and sidewalk plantings would be

incorporated to provide adequate shade and habitat and provide a more comfortable mobility environment for pedestrians. In addition, vehicular access to the Project Site would be provided separately from the pedestrian and bicycle access points. Thus, the Project design approach would align with the Pedestrian-First Design approach of *Citywide Design Guidelines* to provide a safe, comfortable, and accessible experience for all transportation modes.

# **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 0.5 miles of the Project Site and any transportation system improvements in the vicinity.

Similar to the Project, the Related Projects, identified in Table 4, would be individually responsible for complying with relevant plans, programs, ordinances, or policies addressing the circulation system. 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 do not interfere with any of the general policy recommendations and/or pilot proposals and, therefore, there would be no significant Project impact or cumulative impact.

# TABLE 6PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency				
Chapter 1 - Safety First					
Policy 1.1, Roadway User Vulnerability Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.	<b>Consistent.</b> Access to the Project Site would be provided via one full- access driveway on Bellwood Avenue. Additionally, the portion of Bellwood Avenue that currently bifurcates the Project Site would be vacated and realigned, with through public access maintained from both sides of Bellwood Avenue. Separate pedestrian access would be provided via entrances on Bellwood Avenue. Bicyclists would have the same access opportunities as pedestrians.				
Policy 1.6 Multi-Modal Detour Facilities Design detour facilities to provide safe passage for all modes of travel.	<b>Consistent.</b> Construction activities associated with the new building and on-site improvements would be maintained on-site. Any temporary impediments to the public right-of-way would be addressed with implementation of the Construction Management Plan.				
Chapter 2 - World Class Infrastructure					
Policy 2.2 Complete Streets Design Guide 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.	<b>Consistent.</b> As part of the Project, Bellwood Avenue would be improved with consideration of the safety of all users, including pedestrians, bicyclists, and vehicles.				
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.	<b>Consistent.</b> While this is a Citywide policy, the Project would support its implementation. The realignment of Bellwood Avenue would maintain pedestrian access on both sides of Bellwood Avenue. Streetscape amenities, such as new street trees on Bellwood Avenue and pedestrianscale lighting fixtures and elements would enhance the pedestrian experience. In addition, the Project would provide improvements to the sidewalks with wider widths along portions of Bellwood Avenue. The Project would also include a bistro courtyard and lobby, providing an active ground floor with pedestrian friendly improvements.				
Provide a slow speed network of locally serving streets.	<b>Consistent.</b> No access to the Project Site is provided along street segments identified in the Neighborhood Enhanced Network, thereby ensuring that minimum Project traffic would not interfere with the neighborhood character of the surrounding area. In addition, as part of the Project, the portion of Bellwood Avenue that travels through the Project Site would be vacated and realigned. Through public vehicular and pedestrian access would be maintained from both sides of Bellwood Avenue, and a vehicle turn-out adjacent to the building's lobby entrance would be provided along with sidewalk and streetscape improvements. Thus, Bellwood Avenue would continue to serve as a slow speed local street (i.e., 15 to 20 miles per hour).				

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 (cont.) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency			
Policy 2.5 Transit NetworkImprove the performance and reliability of existing and future bus service.Policy 2.6 Bicycle NetworksProvide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. (includes scooters, skateboards, rollerblades, etc.)	<ul> <li>Consistent. While this is a Citywide policy, the Project would support its implementation. The Project would result in a net reduction in trips. As such, the Project demand for transit service would not exceed the regional transit system capacity. Thus, the Project would not cause the capacity of the transit system to be substantially exceeded.</li> <li>Consistent. While this is a Citywide policy, the Project would support its implementation. The Project Site is not located adjacent to any roadways designated within the Bicycle Lane Network. In addition, Project visitors and employees arriving by bicycle would have the same access opportunities as pedestrian visitors, with access to the Project Site via improved sidewalks along the realigned Bellwood Avenue, as well as internal pathways with access to the central courtyard and lobby entrances. The Project provides both long-term and short-term bicycle parking amenities.</li> </ul>			
Policy 2.7 Vehicle Network Provide vehicular access to the regional freeway system.	<b>Consistent.</b> This is a citywide policy that does not apply to the Project because no changes to regional access are proposed as part of the Project. Vehicular access to the Project Site would be provided via Bellwood Avenue. Regional access to the Project Site would continue to be provided via Olympic Boulevard to Santa Monica Boulevard, I-10, and I-405.			
Policy 2.10 Loading Areas Facilitate the provision of adequate on and off- street loading areas.	<b>Consistent.</b> An entry motor court/vehicle turn-out area would be provided along Bellwood Avenue adjacent to the Project Site and would be located adjacent to the lobby area. Access to the subterranean parking would occur from one entry/exit driveway located along Bellwood Avenue near the northern boundary of the building. A separate service driveway, providing access to the loading area, would be located on Bellwood Avenue adjacent to the parking entry/exit driveway.			
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.	<b>Consistent.</b> The Project encourages multi-modal transportation alternatives and access for all travel modes to and from the Project Site. The Project provides a entry motor court/vehicle turn-out area adjacent to the Project lobby entrance along the realigned portion of Bellwood Avenue. The Project also provides infrastructure (enhanced sidewalks, short- and long-term bicycle parking, easy bicycle accessibility to the Project Site) to encourage walking and bicycling.			
Policy 3.2 People with Disabilities Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	<b>Consistent.</b> The Project's vehicular and pedestrian entrances would be designed in consideration of LADOT standards and would comply with Americans with Disabilities Act (ADA) requirements. The Project design would also be in compliance with all ADA requirements and would provide direct connections to pedestrian amenities at adjacent intersections.			

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 (cont.) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency			
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.	<b>Consistent.</b> The Project would provide enhanced sidewalks and bicycle parking amenities to promote multi-modal connectivity.			
Policy 3.8 Bicycle Parking Provide bicyclists with convenient, secure, and well-maintained bicycle parking facilities.	<b>Consistent.</b> The Project would provide short-term and long-term bicycle parking within the Project Site that would satisfy the LAMC requirement.			
Chapter 4 - Collaboration, Communication, & Info	ormed Choices			
Policy 4.5 Improved Communication Facilitate communications between citizens and the City in reporting on and receiving responses to non-emergency street improvements.	<b>Consistent.</b> As part of the Project's Construction Management Plan, advance notification to the adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of construction, would be provided.			
Policy 4.8 Transportation Demand Management Strategies Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	<b>Consistent.</b> The Project would implement Project design features to promote and provide employees, residents, and visitors with opportunities to utilize alternative transportation modes, including enhanced sidewalks and bicycle parking facilities.			
Policy 4.13 Parking and Land Use Management Balance on-street and off-street parking supply with other transportation and land use objectives.	<b>Consistent.</b> The Project would provide sufficient off-street parking to accommodate the Project.			
<b>Policy 4.14 Wayfinding</b> Provide widespread, user-friendly information about mobility options and local destinations, delivered through a variety of channels including traditional signage and digital platforms.	<b>Consistent.</b> The Project would incorporate illumination for parking, signage, and security purposes.			

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 (cont.) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency				
Chapter 5 - Clean Environments & Healthy Communities					
Policy 5.1 Sustainable Transportation Encourage the development of a sustainable transportation system that promotes environmental and public health.	<b>Consistent.</b> The Project would provide bicycle and pedestrian facilities and connections throughout the Project Site.				
Policy 5.2 Vehicle Miles Traveled (VMT) Support ways to reduce vehicle miles traveled (VMT) per capita.	<b>Consistent.</b> The Project would incorporate Project design features to provide residents, employees, and visitors the opportunity to utilize alternative transportation modes to reduce VMT by reducing the number of single occupancy vehicle trips to the Project Site.				
Policy 5.4 Clean Fuels and Vehicles Continue to encourage the adoption of alternative fuels, new mobility technologies, and supporting infrastructure.	<b>Consistent.</b> The Project comply with the City requirements for providing electric vehicle charging stations within the proposed parking area, thus, incorporating Project design features to provide residents, employees, and visitors the opportunity to utilize alternative fuels and new mobility technology.				

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 7 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.	<b>Consistent.</b> The Project would include bicycle amenities and enhance pedestrian access within and around the Project Site by providing improvements to the sidewalks and landscaping within and along the Project perimeter.				
Chapter 2 - A City Built for Health					
Policy 2.8 Basic Amenities Promote increased access to basic amenities, which include public restrooms and free drinking water in public spaces, to support active living and access to health-promoting resources.	<b>Consistent.</b> The Project would provide open space (14,630 sf) to support active living.				
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.	<b>Consistent.</b> The Project would incorporate bicycle and pedestrian amenities to the residents, employees, and visitors to promote alternative transprotation modes, thus, reducing green house gas emissions.				

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 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.	<b>Consistent.</b> The Project design includes accessible sidewalks, pedestrian amenities, and a well-designed vehicular access driveway in accordance with the City's design considerations. The Project would provide street trees uniformly within the sidewalk to provide adequate shade, as well as a more comfortable environment for pedestrians. Further, the orientation of the Project design ensures that the Project actively engages with the street and its surrounding uses. The Project driveways would be designed and placed in accordance with City standards so as to not disrupt pedestrian flow on the adjacent sidewalks.				

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 states that a residential project would result in a significant VMT impact if it cannot meet the household VMT per capita threshold of 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which a project is located. Similarly, a commercial project would result in a significant VMT impact if it cannot meet the work VMT per employee threshold of 15% below the existing average work VMT per employee for the APC area in which the project is located.

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?

# **PROJECT VMT ANALYSIS**

The Project's land uses and their respective sizes were utilized as the primary input to the VMT Calculator.

The VMT Calculator does not include eldercare facility as a land use option. Therefore, in consultation with LADOT, a custom land use input was developed based on published trip generation rates in *Trip Generation Manual*, *10<sup>th</sup> Edition* and a review of comparable land uses available in the VMT Calculator.

Application of the VMT Calculator showed that the Project is expected to generate a net reduction of 75 daily trips. Therefore, a "no impact" determination can be made for the Project, and no mitigation measures would be required.

The detailed screening output from the VMT Calculator is provided in Appendix D.

#### CUMULATIVE ANALYSIS

Cumulative effects of development projects are determined based on 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, 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 an impact by applying an efficiencybased impact threshold (i.e., household VMT per capita or work VMT per employee) in the project 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 described above. Therefore, the Project would not result in a cumulative VMT impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

# 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.

As part of the development of the proposed eldercare facility, the Project includes the vacation and realignment of the portion of Bellwood Avenue that currently bifurcates the Project Site. The realigned Bellwood Avenue would continue to serve the Project Site and would not increase vehicular capacity on the roadway network. The proposed improvement 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 no further evaluation is required.

# Section 4D: Threshold T-3

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

Threshold T-3 requires that a project undergo further evaluation if it proposes new driveways or new vehicle access points to the property from the public ROW or modifications along the public ROW (i.e., street dedications). 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, with consideration to the following factors: (1) the relative amount of pedestrian activity at Project access points; (2) design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site and the visibility of cars to pedestrians and bicyclists; (3) the type of bicycle facilities the project driveway(s) crosses and the relative level of utilization; (4) the physical conditions of the site and surrounding area, such as curves, slopes, walks, landscaping or other barriers that could result in vehicle/pedestrian, vehicle/bicycle, or vehicle/vehicle impacts; (5) the Project location, or Project-related changes to the public ROW, relative to proximity to the HIN or a Safe Routes to School program area; (6) and any other conditions, including the approximate location of incompatible uses that would substantially increase a transportation hazard.

#### **PROJECT ACCESS REVIEW**

#### **Driveway Design Features**

Vehicular access to the Project Site would be provided along Bellwood Avenue from Olympic Boulevard. The portion of Bellwood Avenue that bifurcates the Project Site would be vacated and realigned as a private street; however, through public and vehicular access would be maintained from both sides of Bellwood Avenue and to/from Olympic Boulevard. Access to the subterranean parking levels would be provided via a driveway along Bellwood Avenue near the northern boundary of the Project Site. A separate service driveway along Bellwood Avenue would be provided adjacent to the driveway to the subterranean parking garage. The driveways would be

placed to provide an adequate pedestrian refuge area between the two driveways. In addition, a vehicular turn-out/motor court would be provided adjacent to the building's lobby entrance.

The driveways and vehicular motor court would be placed along the realigned portion of Bellwood Avenue and would be designed and located at a distance from Olympic Boulevard to limit queue spillovers into the public ROW and interruptions to pedestrian flow and safety. Thus, the Project's driveways would not substantially increase vehicle-vehicle conflicts and would not present any geometric design hazards as it relates to traffic movement.

# Pedestrian and Bicycle Activity

The Project would widen portions of the adjacent sidewalks along Bellwood Avenue to create a walkable and attractive pedestrian environment. In addition, paved walkways would be provided internal to the Project Site with access to and from Bellwood Avenue.

Currently, there are no bicycle facilities adjacent to the Project frontage. Within the Study Area, Avenue of the Stars, Pico Boulevard, and Beverly Glen Boulevard north of Santa Monica Boulevard have been identified as part of the BLN. Based on existing intersection volume data collected in April 2019, it was observed that Olympic Boulevard carries fewer than 13 bicycles during the entire span of the six-hour commuter peak periods (7:00 to 10:00 AM and 3:00 to 6:00 PM), as detailed in Appendix B. Therefore, given the minimal bicycle traffic, the driveways would not pose a safety hazard to bicyclists.

#### Physical Terrain

The Project's design integrates with the sloping topography of the surrounding area. The driveway design would not restrict sight lines, allowing drivers to safely identify approaching vehicles, pedestrians, and bicycles before committing to turn. Driveways are designed to intersect Bellwood Avenue at right angles to allow pedestrians and bicyclists to observe vehicles within the driveways.

The Project would provide private and public open space, landscaped elements, and street trees for shade along the Project perimeter and within the Project Site to create a walkable and attractive pedestrian environment. Pedestrian sidewalks would be improved to provide continuous pedestrian connections on Bellwood Avenue to Olympic Boulevard along the Project frontage.

### Project Location

The Project Site is not located adjacent to a street identified as part of the HIN. Additionally, the Safe Routes to School map does not identify any infrastructure improvement projects within the Study Area.

As previously noted, the portion of Bellwood Avenue that bifurcates the Project Site would be vacated and realigned. Through public access would be maintained from both sides of Bellwood Avenue, and the Project would improve the realigned portion of Bellwood Avenue to provide sidewalks on both sides and a 28-foot roadway.

#### Incompatible Uses

The Project design incorporates and expands on the surrounding areas to provide a more attractive, well-defined, and accessible interaction between the Project and the adjacent uses. None of the Project design elements that are tangential to the adjacent uses are considered incompatible. There are no unusual or new obstacles that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians.

#### <u>Summary</u>

Based on the site plan review and design assumptions, the Project does not present any geometric design hazards related to mobility or pedestrian accessibility.

# CUMULATIVE ANALYSIS

None of the Related Projects identified in Table 4 provide access along the same block as the Project. Thus, the Project and Related Projects would not result in a cumulative impact under Threshold T-3.

# Section 4E Freeway Safety Analysis

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

# ANALYSIS METHODOLOGY

The City Freeway Guidance relates to the identification of potential safety impacts at freeway offramps 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. The 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<sup>3</sup>.
- 2. The 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.

<sup>&</sup>lt;sup>3</sup> 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 the project's trip generation, investments in active transportation or transit system infrastructure to reduce the 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.

### FREEWAY SAFETY ANALYSIS

Based on the Project's trip generation estimates and traffic distribution pattern detailed in Chapter 3, which was reviewed and approved by LADOT as part of the Project's MOU, the Project would not add 25 or more peak hour trips to any freeway off-ramp. Therefore, no freeway off-ramp analysis is required, and the Project satisfies the City requirements for a freeway safety analysis of Caltrans facilities.

# Chapter 5 Non-CEQA Transportation Analysis

This chapter summarizes the non-CEQA transportation analysis of the Project. It includes sections related to Project traffic, proposed access provisions, safety, and circulation operations, as well as pedestrian, bicycle, and transit facilities in the vicinity of the Project. This chapter also evaluates 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 were reviewed in detail in Sections 5A-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

Adjacent to the Project Site, nine-foot wide sidewalks are provided along Bellwood Avenue. Curb ramps for ADA accessibility are provided at both ends of Bellwood Avenue at Olympic Boulevard. Figure 5 shows a map of commercial and institutional facilities within walking distance of the Project Site that could attract pedestrian activity.

No bicycle facilities are currently provided adjacent to the Project Site.

#### <u>Transit</u>

Although no bus stops are located adjacent to the Project Site, some public transit stops in the vicinity of the Project Site are equipped with shelters (for rain or shade) and/or benches. For example, along westbound Olympic Boulevard, the Big Blue Bus Route 5 bus stop provides

benches immediately west of Kerwood Avenue, but no shelter or benches immediately east of Beverly Glen Boulevard. Along eastbound Olympic Boulevard, the Big Blue Bus Route 5 bus stop provides both shelters and benches immediately west of Beverly Glen Boulevard and benches east of Century Park West.

### INTENSIFICATION OF USE

The Project would result in additional pedestrian, bicycle, and transit activity in the vicinity of the Project Site. However, the Project would enhance the pedestrian environment by providing a more comfortable pedestrian experience by widening most of the adjacent sidewalks, as well as providing streetscape improvements. The Project would provide bicycle parking for employees, residents, and visitors in accordance with LAMC requirements. Furthermore, the Project is located within a 0.25-mile walking distance of a Big Blue Bus Route 5 bus stop along Olympic Boulevard at Kerwood Avenue that encourages the utilization of public transit. Overall, the Project would not result in the deterioration of any existing facilities serving pedestrians or bicyclists.

Although the Project (and other Related Projects) will cumulatively add transit ridership, as detailed in Table 2, the Study Area is served by several established transit routes. The Project is served by multiple bus lines operated by Big Blue Bus and Culver CityBus along Olympic Boulevard and Century Park West within the Study Area, as well as Santa Monica Boulevard. As shown in Table 3, the total residual capacity of the bus lines within a 0.25-mile walking distance of the Project Site during the morning and afternoon peak hours is approximately 660 additional riders during the morning peak hour and 636 additional riders during the afternoon peak hour. The Project is not expected to generate significant transit-trips during the morning and afternoon peak hour, respectively. Therefore, the adjacent transit capacity can easily accommodate the intensification of transit usage attributable to the Project without significantly absorbing excess capacity.

#### CONCLUSION

The Project would result in some intensification of pedestrian, bicycle, and transit activity in the vicinity of the Project Site. However, the Project would improve the adjacent pedestrian facilities

and promote a more comfortable environment for all users through adequate sidewalk widths, street trees, and enhanced pedestrian connections. The current transit infrastructure has adequate residual capacity to accommodate Project transit trips. The pedestrian, bicycle, and transit activity generated by the Project would not strain the transportation system dedicated to those modes.

# Section 5B Project Access and Circulation Assessment

This section summarizes the site access, safety, and circulation of the Project Site. It includes a quantitative evaluation of the Project's access and circulation operations, including the anticipated LOS at the study intersections and anticipated traffic queues.

### **PROJECT ACCESS**

#### **Vehicles**

As previously detailed, the portion of Bellwood Avenue that bifurcates the Project Site would be vacated and realigned as a private street, as shown in Figure 1. Through public access from Olympic Boulevard from both sides of Bellwood Avenue would be maintained with development of the Project.

Vehicular access into the Project's subterranean parking garage would be provided via one fullaccess driveway along the realigned portion of Bellwood Avenue near the northern boundary of the Project Site. The driveway would be designed to LADOT standards and to minimize queue spillover into the adjacent public ROW. A separate service driveway, providing access to the loading area, would be located adjacent to the parking garage driveway. In addition, a vehicle turn-out area would be provided adjacent to the Project's lobby entrance.

#### Pedestrians and Bicycles

Pedestrian access to the Project Site would be provided via improved sidewalks along Bellwood Avenue. In addition, pathways would be provided internal to the Project Site with access to the central courtyard and lobby entrances.

The Project access locations would be designed to provide connectivity to adjacent pedestrian facilities to further protect pedestrian safety. The realigned portion of Bellwood Avenue and the Project driveways would be designed to maximize sight distance and safety for all travel modes.

Residents, visitors, and employees arriving by bicycle would have the same access opportunities as pedestrian visitors. In order to support and facilitate bicycle use to and from the Project Site, short-term and long-term bicycle parking spaces would be provided as detailed in Section 5E.

# **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 eight signalized study intersections in the vicinity of the Project Site were selected for detailed transportation analysis in consultation with LADOT.

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

- <u>Existing with Project Conditions (Year 2019)</u> 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.
- <u>Future with Project Conditions (Year 2023)</u> This analysis condition analyzes the potential intersection operating conditions that could be expected if the Project were fully occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2023).

# <u>Methodology</u>

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6<sup>th</sup> 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 9 presents a description of the LOS categories, which range from

excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized intersections. The queue lengths were estimated using Synchro, which reports the 85<sup>th</sup> percentile queue length for signalized intersections, in feet. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

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

# **Existing with Project Conditions**

<u>Traffic Volumes</u>. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 3 and shown in Figure 13 were added to the Existing morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 14 and represent Existing with Project Conditions, assuming Project operation under Existing Conditions.

**Intersection LOS**. Table 10 summarizes the results of the Existing and Existing with Project Conditions during the weekday morning and afternoon peak hours for the eight study intersections. As shown, five of the eight study intersections are anticipated to continue to operate at LOS D or better during both the morning and afternoon peak hours under Existing with Project Conditions. The remaining three study intersections are anticipated to continue to operate at LOS E or F during at least one of the analyzed peak hours.

# Future with Project Conditions

All future adjustments, including cumulative traffic growth (i.e., ambient growth and Related Project traffic) and transportation infrastructure improvements described in Chapter 2 were incorporated into this analysis.

**Traffic Volumes.** The Project-only morning and afternoon peak hour traffic volumes described in Chapter 3 and shown in Figure 13 were added to the Future without Project (Year 2023) morning and afternoon peak hour traffic volumes shown in Figure 10. The resulting volumes are illustrated in Figure 15 and represent Future with Project Conditions after development of the Project in Year 2023.

**Intersection LOS.** Table 11 summarizes the results of the Future without Project (Year 2023) and Future with Project Conditions during the weekday morning and afternoon peak hours for the eight study intersections. As shown, three of the eight study intersections are anticipated to operate at LOS D or better during both the morning and afternoon peak hours under Future with Project Conditions. The remaining five study intersections are anticipated to continue to operate at LOS E or F during at least one of the analyzed peak hours.

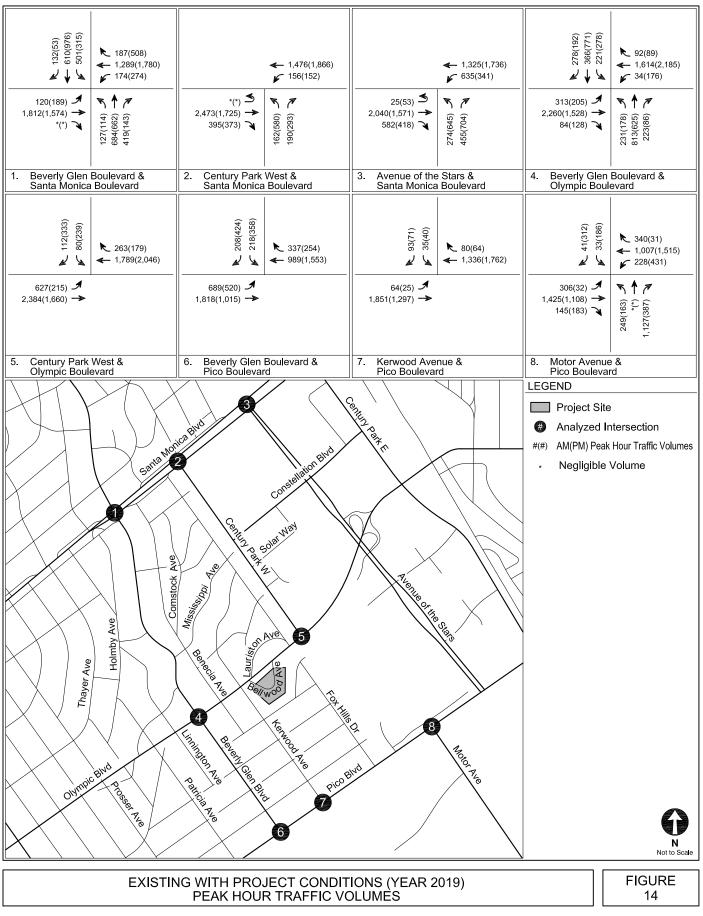
# INTERSECTION QUEUING ANALYSIS

The study intersections, Project driveway on Bellwood Avenue, and intersections of Olympic Boulevard at both ends of Bellwood Avenue were analyzed to determine whether the lengths of intersection turning lanes were adequate to accommodate vehicle queue lengths.

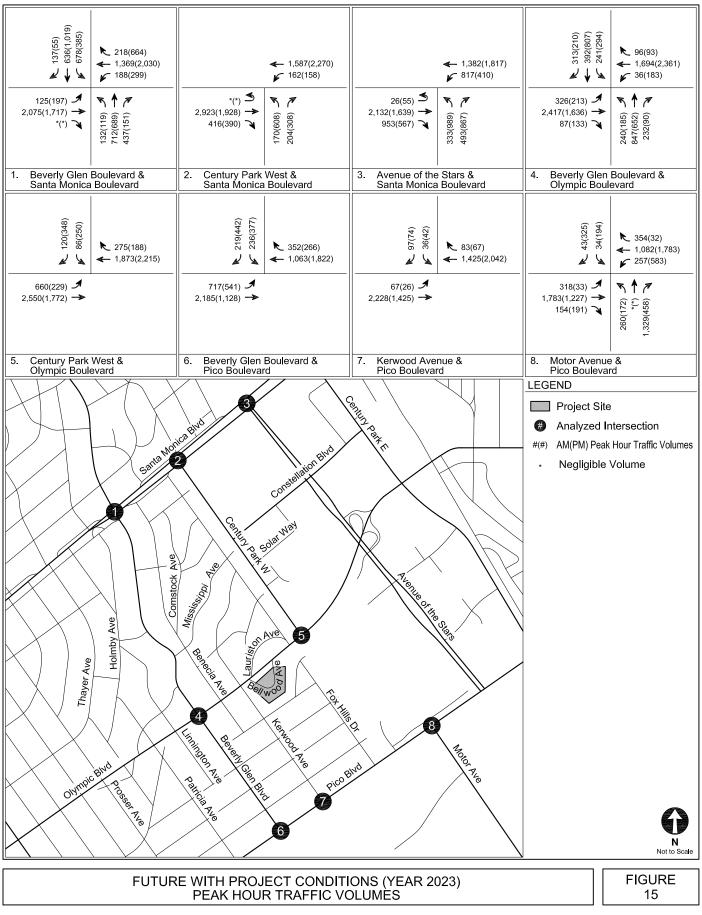
The queue lengths were estimated using Synchro software, which reports the 85<sup>th</sup> percentile queue length for signalized intersections at each approach lane and the 95<sup>th</sup> percentile queue length for unsignalized intersections. Synchro queue results reported in vehicle length were converted to feet by multiplying each vehicle by 25 feet to account for the average length of a vehicle plus the distances between vehicles in the queue. The reported queues were calculated using the HCM signalized and unsignalized intersection methodology.

Detailed queuing analysis worksheets are provided in Appendix E.









### TABLE 9 INTERSECTION LEVEL OF SERVICE

Level of		Dela	<b>Iy</b> [a]
Service	Description	Signalized	Unsignalized
		Intersections	Intersections
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10	≤ 10
В	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
С	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 10 EXISTING WITH PROJECT CONDITIONS (YEAR 2019) INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak	Exis	sting	Existing w	vith Project
NO	intersection	Hour	Delay	LOS	Delay	LOS
1.	Beverly Glen Boulevard &	AM	68.1	E	68.1	E
[a]	Santa Monica Boulevard	PM	56.9	E	56.8	E
2.	Century Park West &	AM	14.5	В	13.9	В
[a]	Santa Monica Boulevard	PM	22.3	С	22.1	С
3.	Avenue of the Stars &	AM	28.5	С	35.6	D
[a]	Santa Monica Boulevard	PM	27.2	С	34.0	С
4.	Beverly Glen Boulevard &	AM	94.1	F	94.4	F
[a]	Olympic Boulevard	PM	42.6	D	41.8	D
5.	Century Park West &	AM	31.3	С	31.3	С
[a]	Olympic Boulevard	PM	18.7	В	18.7	В
6.	Beverly Glen Boulevard &	AM	58.4	E	58.5	E
[a]	Pico Boulevard	PM	61.3	E	61.1	E
7.	Kerwood Avenue &	AM	11.6	В	11.5	В
[a]	Pico Boulevard	PM	7.5	A	7.5	A
8.	Motor Avenue &	AM	23.1	С	23.0	С
[a]	Pico Boulevard	PM	28.7	С	28.7	С

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

[a] Signalized intersection analyzed based on the HCM Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

### TABLE 11 FUTURE WITH PROJECT CONDITIONS (YEAR 2023) INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak	Future with	out Project	Future wi	th Project
NO	intersection	Hour	Delay	LOS	Delay	LOS
1.	Beverly Glen Boulevard &	AM	113.6	F	113.6	F
[a]	Santa Monica Boulevard	PM	88.4	F	88.5	F
2.	Century Park West &	AM	12.7	В	14.4	В
[a]	Santa Monica Boulevard	PM	23.7	С	23.6	С
3.	Avenue of the Stars &	AM	66.2	E	61.4	E
[a]	Santa Monica Boulevard	PM	33.4	С	31.8	С
4.	Beverly Glen Boulevard &	AM	117.1	F	117.3	F
[a]	Olympic Boulevard	PM	54.2	D	54.0	D
5.	Century Park West &	AM	39.6	D	39.4	D
[a]	Olympic Boulevard	PM	23.4	С	23.3	С
6.	Beverly Glen Boulevard &	AM	66.7	E	66.8	E
[a]	Pico Boulevard	PM	85.6	F	85.2	F
7.	Kerwood Avenue &	AM	21.5	С	14.3	В
[a]	Pico Boulevard	PM	7.9	A	7.9	A
8.	Motor Avenue &	AM	33.1	С	21.4	С
[a]	Pico Boulevard	PM	63.4	E	63.5	E

<u>Notes</u>

Delay is measured in seconds per vehicle

LOS = Level of service

[a] Signalized intersection analyzed based on the HCM Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

# Section 5C Residential Street Cut-Through Analysis

This section summarizes the residential street cut-through analysis for the Project. The residential street cut-through analysis determines potential increases in average daily traffic volumes on designated Local Streets, as classified in the Mobility 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.

Section 3.5.2 of the TAG provides a list of questions to assess whether the Project would negatively affect residential streets. The Project would generate a net reduction in daily trips and would not lead to trip diversion from the adjacent and nearby streets to alternative routes along a residential Local Streets that are not located adjacent to the Project Site; nor is the Project projected to add a substantial amount of automobile traffic to congested Arterial Streets that could potentially cause a shift to residential Local Streets; nor is there a nearby local residential street that provides a viable alternative route to the Project Site. 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, including the realignment of Bellwood Avenue and related improvements. The construction impact analysis relates to the temporary effects that may result from the construction activities associated with the Project and was conducted in accordance with Section 3.4 of the TAG.

# **CONSTRUCTION EVALUATION CRITERIA**

Section 3.4.3 of the TAG identifies three types of in-street construction constraints that require further analysis to assess the effects of Project construction on the existing pedestrian, bicycle, transit, or vehicle circulation:

- 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 bus travelers

The factors to be considered include the magnitude and duration of the temporary loss of access and transportation facilities, 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 within the public ROW:

- Street, sidewalk, or lane closures
- Blocking of 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

# PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of approximately 34 months, with completion anticipated in Year 2023. Peak truck activity occurs during the excavation and grading activities and the mat foundation period, and peak worker activity occurs during the building finishes/architectural coatings phase. These phases of construction were studied in greater detail.

# **TRUCK ROUTES**

Haul trucks would travel on approved truck routes designated within the City. Given the Project Site's proximity to I-10 and I-405, haul traffic would take the most direct route to the appropriate freeway ramps. The haul routes will be reviewed and approved by the City.

### **EXCAVATION AND GRADING PHASE**

The peak period of haul truck activity during construction would occur during excavation and grading of the Project Site.

Based on projections compiled for the Project, approximately 74,800 cubic yards of material would be excavated and removed from the Project Site. Based on scheduling estimates, this would require up to 81 haul trucks per day. It is also anticipated that up to five delivery trucks would arrive to the Project Site per day during the excavation and grading phase. Thus, up to 172 daily truck trips (86 inbound, 86 outbound), including 162 daily haul truck trips and 10 daily delivery truck trips, are forecast to occur during the excavation and grading period<sup>4</sup>. Up to 26 trips per hour (13 inbound, 13 outbound) would occur during the hauling period.

<sup>&</sup>lt;sup>4</sup> Based on input from the Project Applicant, a maximum of 13 haul trucks could be accommodated within a given hour. Thus, should haul trucks be limited to a six-hour period (9:00 AM to 3:00 PM), the 162 daily haul trucks estimate is conservative and overstated.

Large trucks were converted into the equivalent value of passenger cars due to the slower headway and delay-creating effects of heavy vehicles. Table 8 of *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* (Transportation Research Board, 1980) and Exhibit 12-25 of the HCM suggest that a passenger car equivalency (PCE) of one truck is equal to 2.0 commuter vehicles. Assuming a PCE factor of 2.0, the 172 truck trips would be equivalent to 344 daily PCE trips. The 26 hourly truck trips would be equivalent to 52 PCE trips (26 inbound, 26 outbound) per hour.

In addition, a maximum of 30 daily construction worker trips (15 inbound and 15 outbound) to and from the Project Site are anticipated on a daily basis during the excavation and grading period.

With the implementation of the Construction Management Plan, which is described in more detail later in this chapter, it is anticipated that haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours where feasible. In addition, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the excavation and grading phase of construction.

### MAT FOUNDATION PHASE

Peak truck activity during construction would occur during the mat foundation phase, when approximately 200 concrete trucks are anticipated to arrive to the Project Site<sup>5</sup>. Thus, up to 400 truck trips (200 inbound, 200 outbound) are forecast to occur during this period, or approximately 26 trips per hour (13 inbound, 13 outbound) over a typical 12-hour truck period. The mat foundation period is anticipated to occur over several days. Assuming a PCE factor of 2.0, the 400 truck trips would be equivalent to 800 daily PCE trips. The 26 hourly truck trips would be equivalent to 52 PCE trips (26 inbound, 26 outbound) per hour.

In addition, a maximum of 30 daily construction worker trips (15 inbound and 15 outbound) are anticipated to and from the Project Site during this phase.

<sup>&</sup>lt;sup>5</sup> Based on input from the Project Applicant, a maximum of 13 concrete trucks could be accommodated at the Project Site within a given hour. As such, the estimate of 200 daily concrete trucks over a 12-hour period is conservative and overstated.

Consistent with the excavation and grading phase, with implementation of the Construction Management Plan, it is anticipated that truck activity to and from the Project Site and construction worker trips would occur outside of the morning and afternoon peak hours where feasible. Therefore, no peak hour construction traffic impacts are expected during the mat foundation period of construction.

# **BUILDING FINISHES/ARCHITECTURAL COATINGS PHASE**

The traffic impacts associated with construction workers depends on the number of construction workers employed during various phases of construction, as well as the travel mode and travel time of the workers. In general, the hours of construction typically require workers to be on-site before the weekday morning commuter peak period and allow them to leave before the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 3:00 PM or after 6:00 PM). Therefore, most, if not all, construction worker trips would occur outside of the typical weekday commuter peak periods.

According to construction projections prepared for the Project, a maximum of 200 daily construction worker trips (100 inbound and 100 outbound trips) to and from the Project Site are anticipated during the building finishes/architectural coatings phase. Nearly all of those trips would occur outside of the peak hours, as described above. As such, the building phase of Project construction is not expected to cause a significant traffic impact at any of the study intersections.

During construction, adequate parking for construction workers would be secured on-site to the extent feasible or at an off-site parking facility within walking distance of the Project Site. Workers will be restricted from parking in the public ROW in the vicinity of (or adjacent to) the Project Site as part of the Construction Management Plan.

### POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, as long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk

closures, etc.) will be incorporated into the Construction Management Plan. The constructionrelated impacts associated with access and transit are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

### <u>Access</u>

Construction activities associated with the new building and on-site improvements are expected to be primarily contained within the Project Site boundaries. However, construction activities related to the realignment of Bellwood Avenue would require a partial closure of Bellwood Avenue that would restrict through access for the duration of construction. The closure would occur within the Project Site and would only affect vehicular, pedestrian, and bicycle access to the Project Site. Access to Bellwood Avenue from Olympic Boulevard would remain open at both the east and west ends. Therefore, access to the adjacent hotel, residential, and commercial uses would be maintained and would not be impacted by construction activities of the Project. In addition, adequate fire access would also be maintained. Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction Management Plan.

### Transit and Parking

No bus stops are located adjacent to the Project Site. Therefore, no bus stop relocation or bus rerouting is required, and no temporary impacts to transit are expected. Project construction activities are anticipated to result in on-street parking removals along Bellwood Avenue. These on-street parking spaces serve the existing multi-family residential uses of the Project Site and are restricted to permit parking only at all times. These on-street parking spaces along Bellwood Avenue Avenue would not be re-installed with completion of the Project, as the future parking demand for the Project Site would be accommodated within the Project's on-site parking garage.

### **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, prior to commencing construction. 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:

- Advance notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation.
- Prohibition of construction work or equipment parking on adjacent streets.
- Temporary traffic control (e.g., flag persons) during construction activities adjacent to public ROW to improve traffic flow on public roadways, as appropriate.
- Containment of Project construction activity associated with the new building and on-site improvements within the Project Site boundaries.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Spacing of trucks so as to discourage a convoy effect.
- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

It is likely that Construction Management Plans would also be submitted for approval to the City by the Related Projects prior to the start of construction activities. As part of the LADOT and/or Los Angeles Department of Building and Safety (LADBS) established review process of Construction Management Plans, potential overlapping construction activities and proposed haul routes would be reviewed to minimize the impacts of cumulative construction activities on any particular roadway.

# Section 5E Parking

This section provides an analysis of the proposed parking and the potential parking impacts of the Project.

# PARKING SUPPLY

The Project proposes up to 140 vehicular parking spaces within two levels of subterranean parking. In addition, the Project would provide 72 bicycle parking spaces. The Project would comply with the City requirements for providing electric vehicle charging capabilities and stations within the parking facility.

### VEHICLE PARKING CODE REQUIREMENTS

The parking requirements for the Project are based on rates provided in LAMC Section 12.21.A4(d)(5) for eldercare facilities. Additionally, as fully detailed in LAMC Section 12.21.A4(u), the parking requirement for senior independent living and assisted living uses may be reduced by 50% if the following criteria are met:

- (1) Each dwelling unit or guest room is occupied by at least one person who is disabled or 62 years or older, except for management or maintenance staff.
- (2) At least 10 sf of indoor recreation space and 50 sf of open space per dwelling unit are available and accessible to all residents.

Per LAMC Section 12.21.A4(u)(3), prior to the issuance of a building permit for construction, the Project would execute a covenant agreement that states if LADBS determines that the project does not qualify under criteria (1) above, the Project would, at the written request of LADBS, develop the additional parking spaces otherwise required for the Project.

As shown in Table 12, based on these Code requirements, the Project is required to provide a total of 81 vehicular parking spaces with application of the allowable reductions for senior independent living and assisted living uses. The parking requirements would be satisfied on-site as the Project would provide a minimum of 81 vehicular parking spaces.

# **BICYCLE PARKING CODE REQUIREMENTS**

Table 13 summarizes the bicycle parking requirements for the Project per LAMC Section 12.21.A16(a)(1)(i), which states that short-term and long-term bicycle parking requirements for senior and eldercare housing, including independent living, assisted living, and memory care uses, are the same as institutional uses. There are distinct requirements for the number of long-term spaces and short-term spaces. Long-term spaces are for bicycle storage overnight or longer, while short-term spaces are more easily accessible as they are typically used for up to a few hours at a time. As shown in Table 13, the institutional use requires one long-term bicycle parking space per 10,000 sf and one short-term bicycle parking space per 5,000 sf.

As detailed in Table 13, the Project is required to provide a total of 72 (24 long-term and 48 shortterm) bicycle parking spaces. The LAMC bicycle parking requirement would be satisfied on-site, and no significant bicycle parking impacts are anticipated.

#### TABLE 12 CODE VEHICLE PARKING REQUIREMENT

Land Use	Size	Code Re	Parking Required		
Independent Living	71 units	0.5 spaces	/	1 unit	35 spaces
Assisted Living	75 rooms	0.5 spaces	/	1 room	37 spaces
Memory Care	46 beds	0.2 spaces	/	1 bed	9 spaces
		Total	Code F	Required Parking	81 spaces

#### Notes

[a] Code requirements per Section 12.21A.4.(d)(5) of the LAMC for eledercare facilities.

[b] Per LAMC Section 12.21.A4(u), the code parking requirement for senior independent living and assisted living uses may be reduced by 50% if all of the following criteria are met:

- (1) Each dwelling unit or guest room is occupied by at least one person that is disabled or 62 years or older, except for management or maintenance staff.
- (2) At least 10 sf of indoor recreation space and 50 sf of open space for each dwelling unit are available and accessible to all residents.
- (3) Prior to the issuance of a building permit for construction, if the Department of Building and Safety (DBS) determines that the project does not qualify under criteria (1), the project will, at the written request of DBS, develop the additional parking spaces otherwise required for the project.

# TABLE 13CODE BICYCLE PARKING REQUIREMENT

Type of Land Use	Units or Size	Long-Term Spaces	Short-Term Spaces	
Los Angeles Municipal Code Requirement				
Institution [a]		1 space per 10,000 sf	1 space per 5,000 sf	
Project Parking Requirement				
Independent Living, Assisted Living and Memory Care [b]	241,754 sf	24	48	
	Total	24	48	
Total Bicycle Par	72			

<u>Notes</u>

sf = square feet

[a] Bicycle parking requirements per LAMC Section 12.21.A16.

[b] Total floor area includes residential floor area, common area floor area, and corridors.

# Chapter 6 Summary and Conclusions

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

- The Project, located at 10328-10384 and 10341-10381 Bellwood Avenue, would develop a 192-unit eldercare facility consisting of 71 independent care units, 75 assisted living units, and 46 memory care units. The Project would replace 112 existing multi-family residential units. The Project would also vacate and realign the portion of Bellwood Avenue that bifurcates the Project Site, with through public access maintained from both sides.
- Access to the Project's two-level subterranean parking would be provided via one fullaccess driveway along Bellwood Avenue.
- The Project is anticipated to be complete in Year 2023 and is estimated to generate a net reduction of trips, including 16 fewer net morning peak hour trips and nine fewer net afternoon peak hour trips.
- The Project is consistent with the City's plans, programs, ordinances, and policies and would not result in geometric design hazard impacts.
- The Project does not meet the threshold criteria for requiring VMT analyses and would, therefore, not have VMT impacts.
- The Project would not cause a significant safety impact at any freeway off-ramp locations.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project would incorporate pedestrian and bicycle-friendly designs, such as bicycle parking, adequate sidewalks, and street trees.
- All construction activities would occur outside of the commuter morning and afternoon peak hours to the extent feasible and will not result in significant traffic impacts. A Construction Management Plan would ensure that construction impacts are less than significant.
- The Project is in compliance with LAMC vehicle and bicycle parking requirements.

# References

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

CEQA Air Quality Handbook, South Coast Air Quality Management District, 1993.

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, September 2020.

Highway Capacity Manual, 6<sup>th</sup> Edition, Transportation Research Board, 2016.

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.

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

State of California Senate Bill 743, Steinberg, 2013.

Transportation Assessment Guidelines, Los Angeles Department of Transportation, July 2020.

*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980.

*Trip Generation Manual, 10<sup>th</sup> Edition,* Institute of Transportation Engineers, 2017.

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

West Los Angeles Transportation Improvement and Mitigation Specific Plan, Los Angeles Department of City Planning, 1997.

Appendix A

Memorandum of Understanding

**Attachment C: Study Scoping MOU** 



# **Transportation Impact Study Memorandum of Understanding (MOU)**

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

### I. PROJECT INFORMATION

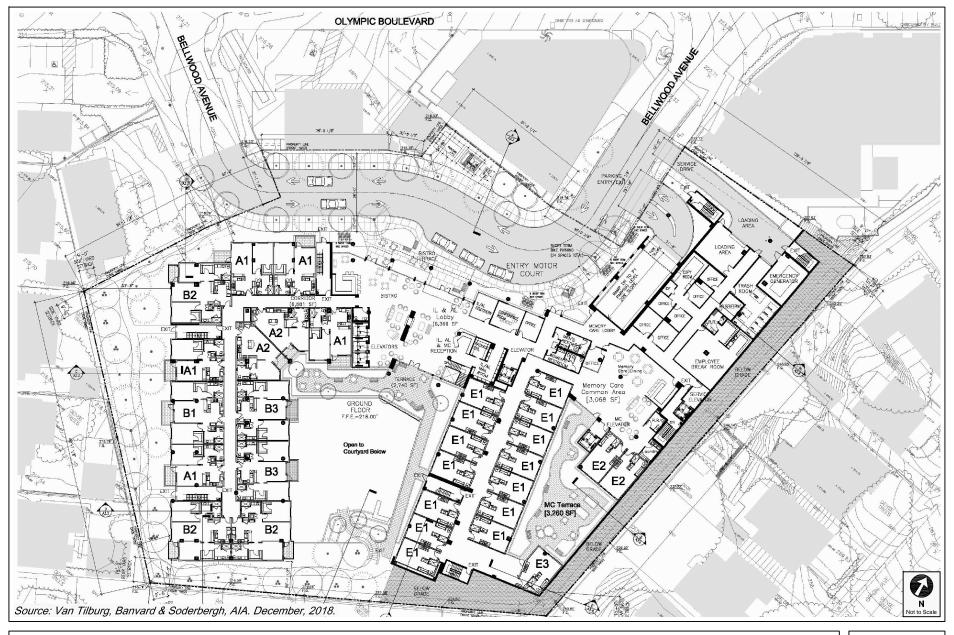
Project Name: Senior Residential Community at the Bellwood
Project Address: 10328-10384 and 10341-10381 Bellwood Avenue, Los Angeles, CA 90064
Project Description: The Project includes the development of a 192-unit eldercare facility consisting of 71 independent living units,
'5 assisted living guest rooms, and 46 memory care guest rooms, as well as 50,463 square feet of ancillary general common areas and amenities
or residents. Parking would be provided within two subterranean levels. The Project would replace 112 existing multi-family residential units on-site.
ADOT Project Case Number: WLA19-107979 Project Site Plan attached? ( <i>Required</i> ) Project Site Plan attached?
I. TRIP GENERATION
Geographic Distribution:         N         10.00         %         S         15.00         %         E         40.00         %         W         35.00         %
llustration of Project trip distribution percentages at Study intersections attached? (Required) 🔲 Yes 🗆 No
rip Generation Adjustments (Exact amount of credit subject to approval by LADOT)
Yes No
Transit Usage
Transportation Demand Management
Existing Active Land Use
Previous Land Use
Internal Trip
Pass-By Trip
Source of Trip Generation Rate(s)? 🔲 ITE 9 <sup>th</sup> Edition 🔲 Other: <u>ITE 10th Edition</u> , West LA TIMP
rip generation table including a description of the proposed land uses, ITE rates, estimated morning and Ifternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? ( <i>Required</i> ) Ifternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? ( <i>Required</i> ) Ifter Ves I No
IN OUT TOTAL
AM Trips         10         -26         -16           PM Trips         -21         0         -21
II. STUDY AREA AND ASSUMPTIONS
Project Buildout Year: 2023 Ambient or CMP Growth Rate: 1 % Per Yr.
Related Projects List, researched by the consultant and approved by LADOT, attached? ( <i>Required</i> ) $\blacksquare$ Yes $\Box$ No
Nap of Study Intersections attached? (May be subject to LADOT revision after initial impact analysis) 🛛 🔲 Yes 🛛 No
s this Project located on a street within the High Injury Network? 🛛 Yes 🔳 No



City of Los Angeles Transportation Impact Study MOU

#### IV. CONTACT INFORMATION DEVELOPER CONSULTANT Name: Gibson Transportation Consulting, Inc. SBLP Century City, LLC Address: \_\_\_\_\_\_ 555 W. 5th Street, Suite 3375, Los Angeles, CA 90013 4514 Cole Ave, Suite 1500, Dallas, TX 75205 Phone Number: (213) 683-0088 (214)370-2650 E-Mail: ewong@gibsontrans.com pmcgonigle@southbayltd.com 19 2/27/19 Approved by: X Consultant's Representative Date LADOT Representative





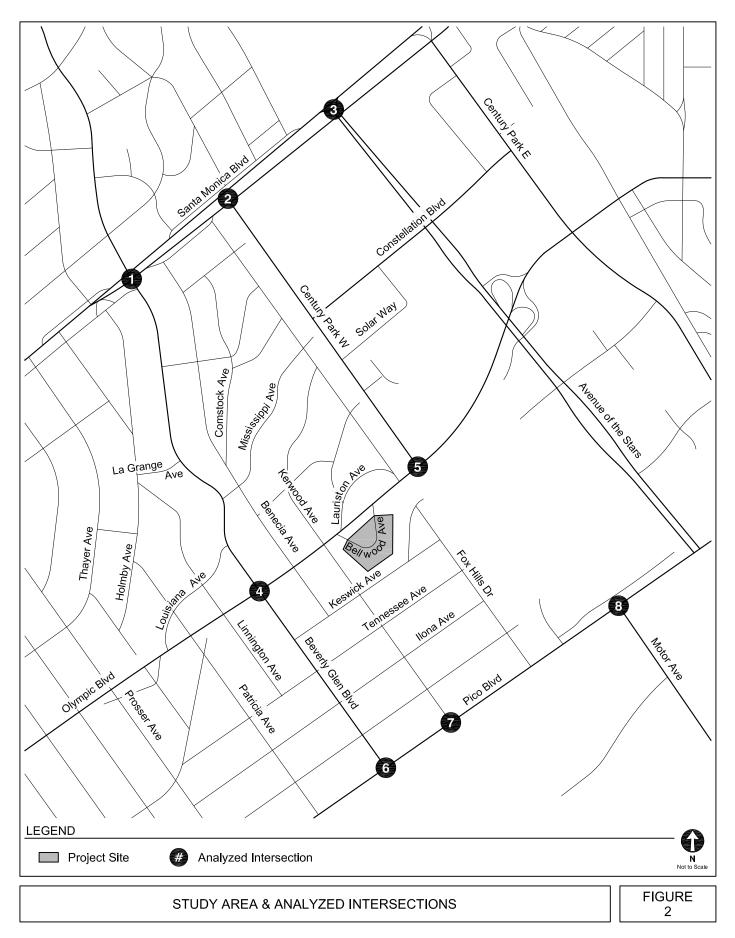
PROJECT SITE PLAN

FIGURE

# TABLE 1 STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction		
1.	Beverly Glen Boulevard	Santa Monica Boulevard	City of Los Angeles / Caltrans		
2.	Century Park W	Santa Monica Boulevard	City of Los Angeles / Caltrans		
3.	Avenue of the Stars	Santa Monica Boulevard	City of Los Angeles / Caltrans		
4.	Beverly Glen Boulevard	Olympic Boulevard	City of Los Angeles		
5.	Century Park W	Olympic Boulevard	City of Los Angeles		
6.	Beverly Glen Boulevard	Pico Boulevard	City of Los Angeles		
7.	Kerwood Avenue	Pico Boulevard	City of Los Angeles		
8.	Motor Avenue	Pico Boulevard	City of Los Angeles		





#### TABLE 2 PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE Land	Size	Deily	A	M Peak Ho	ur	PM Peak Hour [b]		
	Use	Size	Daily	In	Out	Total	In	Out	Total
Trip Generation Rates [a]									
Multifamily Housing (Low-Rise)	220	per du	7.32	23%	77%	0.46	63%	37%	0.49
Congregate Care Facility	253	per du	2.02	60%	40%	0.07	53%	47%	0.08
Assisted Living	254	per bed	2.60	63%	37%	0.19	38%	62%	0.17
Proposed Project									
Independent Living	253	71 du	143	3	2	5	3	3	6
Assisted Living [c]	254	99 beds	257	12	7	19	6	11	17
Memory Care [d]	254	46 beds	120	6	3	9	3	5	8
Subtotal Proposed Project Trips			520	21	12	33	12	19	31
Existing Uses to be Removed									
Multifamily Housing (Low-Rise)	220	112 du	820	12	40	52	35	20	55
Less Walk-In/Transit Reduction - 5% [e]			(41)	(1)	(2)	(3)	(2)	(1)	(3)
Subtotal - Existing Residential			779	11	38	49	33	19	52
TOTAL NET NEW PROJEC	(259)	10	(26)	(16)	(21)	0	(21)		

#### Notes

1,000 square feet = ksf.

[a] Source: Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

[b] The Project Site is located within the West Los Angeles Transportation Improvement and Mitigation Plan Specific Plan (City of Los Angeles Department of City Planning,

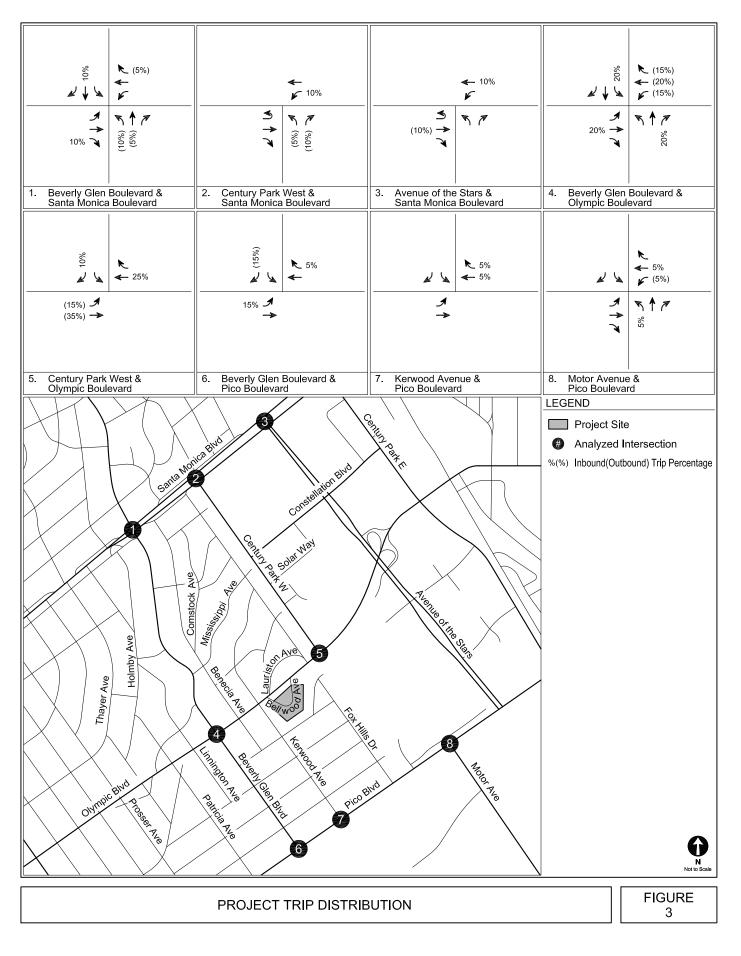
Adopted March 1997) (WLA TIMP) area. Therefore, rates for Eldery Care - Attached and Nursing Home uses from Appendix A of the WLA TIMP were utilized to estimate the PM peak hour trip generation for the Congregate Care and Assisted Living uses, respectively. In addition, the Apartment rates from Appendix A of the WLA TIMP were utilized to estimate the PM peak hour trips generated by the existing multi-family residential uses currently on-site.

[c] The 75 assisted living guestrooms include 51 one-bedroom units and 24 two-bedroom units.

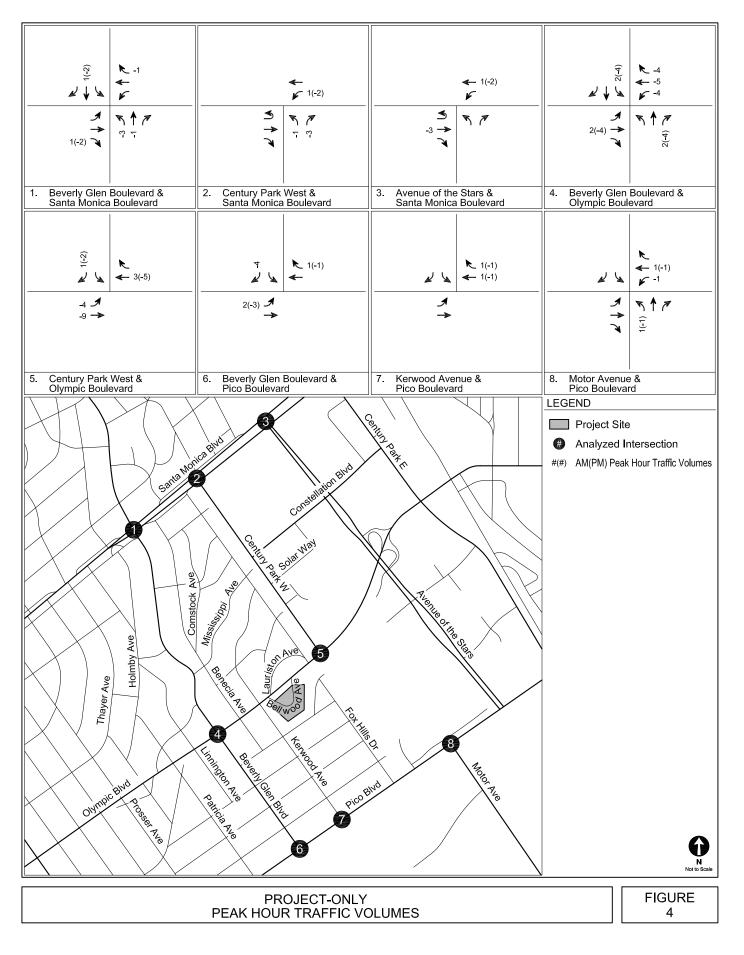
[d] The 46 memory care guestrooms consist only of studio units.

[e] Per LADOT's *Transportation Impact Study Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit/walk-in reduction is applied to account for transit usage and walking visitor arrivals from the adjacent commercial developments.

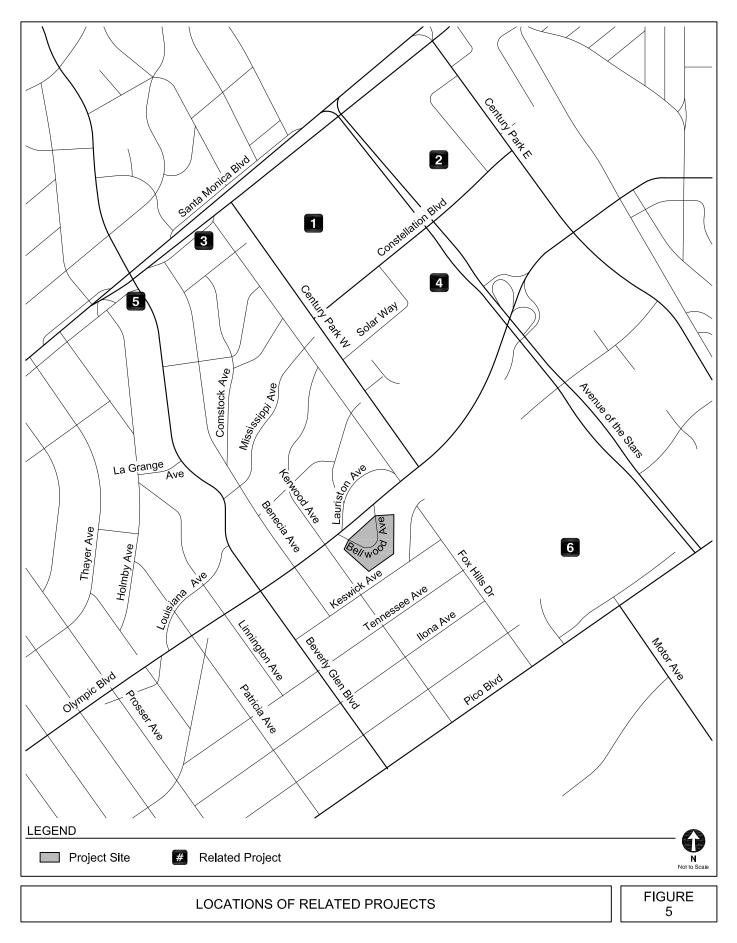












# TABLE 3 RELATED PROJECTS LIST

						Trip	on [a]			
No.	Project	Address	Use	Daily	AN	I Peak H		PI	our	
				,	In	Out	Total	In	Out	Total
1.	Westfield Century City NCP Project	10250 W Santa Monica Boulevard	retail expansion	1,350	16	10	26	69	75	144
2.	Century City Center	1950 S Avenue of the Stars	725,830 sf office	4,603	604	83	687	103	501	604
3.	26 Apt to 91 Apt	10306 W Santa Monica Boulevard	91 apartments units	432	6	27	33	21	11	32
4.	Century Plaza (Hyatt Regency Hotel)	2025 S Avenue of the Stars	193 condo units, 117,647 sf office, 32,263 sf other, 93,814 sf retail	3,690	25	16	41	263	285	548
5.	Apartments	10400 W Santa Monica Boulevard	96 apartment units	702	10	43	53	32	18	50
6.	Fox Studio Master Plan 2016	10201 W Pico Boulevard	additional 1.1 million sf studio building	8,153	915	94	1,009	112	479	591

Notes
[a] Related project information provided by the Los Angeles Department of Transportation in January 2019, Department of City Planning, and recent traffic studies prepared in the area.

Appendix B

Traffic Volume Data

# **Turning Movement Count Report AM**

Location ID: North/South:

East/West:

Beverly Glen Boulevard Santa Monica Boulevard

1

Date: 04/09/19 City: Los Angeles, CA

	S	outhbound	d	I	Westbound	d	1	Vorthboun	d		Eastbound	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
7:00	21	76	73	18	302	22	31	105	26	15	326	23	1038
7:15	27	86	84	43	274	34	34	136	44	22	375	30	1189
7:30	34	141	69	50	377	46	60	180	49	19	407	36	1468
7:45	35	133	113	37	275	49	80	191	29	24	434	35	1435
8:00	32	138	109	42	345	39	94	176	39	21	445	36	1516
8:15	28	154	131	48	306	41	114	173	31	18	474	33	1551
8:30	40	152	131	51	348	54	101	167	29	19	428	26	1546
8:45	32	165	130	47	290	40	110	169	31	18	465	25	1522
9:00	44	152	106	49	340	37	111	127	42	20	440	26	1494
9:15	30	159	147	34	272	40	99	160	40	17	405	47	1450
9:30	40	167	126	58	342	49	86	147	36	19	385	33	1488
9:45	21	138	121	43	318	44	92	132	34	15	396	33	1387
Total Volume:	384	1661	1340	520	3789	495	1012	1863	430	227	4980	383	17084
Approach %	11%	49%	40%	11%	79%	10%	31%	56%	13%	4%	89%	7%	
Peak Hr Begin:	8:00												
PHV	132	609	501	188	1289	174	419	685	130	76	1812	120	6135
PHF		0.950			0.911			0.970			0.956		0.989

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

# **Turning Movement Count Report PM**

Location ID: North/South:

East/West:

Beverly Glen Boulevard Santa Monica Boulevard

1

Date: 04/09/19 City: Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	٢	Vorthboun	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
15:00	16	189	63	77	373	71	39	144	34	43	374	45	1468
15:15	17	234	64	100	420	51	38	130	36	44	363	37	1534
15:30	14	226	62	96	366	57	36	155	30	49	428	52	1571
15:45	27	233	85	95	383	60	30	127	29	40	388	39	1536
16:00	17	229	67	90	381	44	53	155	43	48	445	44	1616
16:15	22	212	74	73	339	63	47	152	31	43	362	31	1449
16:30	16	213	65	96	331	64	40	178	24	34	421	40	1522
16:45	14	247	86	97	405	64	28	191	39	36	381	41	1629
17:00	11	228	66	136	447	58	32	163	27	34	405	43	1650
17:15	13	274	79	118	448	55	36	164	33	54	367	42	1683
17:30	8	233	82	124	435	79	42	166	22	61	450	49	1751
17:45	21	243	88	130	450	82	33	169	31	60	352	55	1714
Total Volume:	196	2761	881	1232	4778	748	454	1894	379	546	4736	518	19123
Approach %	5%	72%	23%	18%	71%	11%	17%	69%	14%	9%	82%	9%	
Peak Hr Begin:	17:00												
PHV	53	978	315	508	1780	274	143	662	113	209	1574	189	6798
PHF		0.919			0.968			0.985		0.880			0.971

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

Leg:	No	rth	Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	7	1	6	1	3	0
7:15	9	1	10	0	10	0	12	1
7:30	13	1	9	0	13	0	17	2
7:45	14	1	10	0	6	1	8	0
8:00	6	0	6	1	13	1	10	0
8:15	12	1	4	0	14	0	13	1
8:30	12	1	6	0	25	1	13	2
8:45	17	0	16	0	11	1	10	0
9:00	14	0	10	0	8	0	15	1
9:15	11	0	7	0	10	1	6	0
9:30	10	0	11	0	14	0	11	0
9:45	8	0	8	0	5	1	7	1

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	West		
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	
15:00	19	0	11	0	23	0	14	1	
15:15	14	0	15	0	16	0	15	0	
15:30	12	0	8	1	7	0	14	1	
15:45	16	0	11	1	16	0	16	2	
16:00	11	1	5	0	20	0	12	2	
16:15	14	0	10	0	23	0	12	1	
16:30	16	0	12	0	22	0	17	2	
16:45	13	0	7	0	5	0	10	1	
17:00	20	0	16	0	21	0	12	0	
17:15	21	1	15	0	9	0	4	0	
17:30	14	1	7	0	11	0	4	0	
17:45	13	1	21	0	9	0	2	1	

# **Turning Movement Count Report AM**

Location ID: North/South:

East/West:

Century Park W Santa Monica Boulevard

2

Date: 04/09/19 City: Los Angeles, CA

	S	outhbound	d	Westbound			٢	Northbound			Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
7:00	0	0	0	0	290	13	18	0	13	45	388	0	767
7:15	0	0	0	0	375	13	18	0	20	50	435	0	911
7:30	0	0	0	0	380	19	29	0	32	75	493	0	1028
7:45	0	0	0	0	385	28	38	0	24	83	547	0	1105
8:00	0	0	0	0	342	34	49	0	36	85	578	0	1124
8:15	0	0	0	0	395	31	43	0	33	98	647	0	1247
8:30	0	0	0	0	380	33	45	0	54	100	597	0	1209
8:45	0	0	0	0	376	42	59	0	36	104	603	0	1220
9:00	0	0	0	0	325	49	46	0	40	93	626	0	1179
9:15	0	0	0	0	362	53	64	0	31	95	584	0	1189
9:30	0	0	0	0	333	39	58	0	51	111	552	0	1144
9:45	0	0	0	0	384	21	54	0	28	81	550	0	1118
Total Volume:	0	0	0	0	4327	375	521	0	398	1020	6600	0	13241
Approach %	0%	0%	0%	0%	92%	8%	57%	0%	43%	13%	87%	0%	
Peak Hr Begin:	8:15												
PHV	0	0	0	0	1476	155	193	0	163	395	2473	0	4855
PHF		0.000			0.957			0.899			0.962		0.973

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

# **Turning Movement Count Report PM**

Location ID: 2 North/South: Ce

East/West:

Century Park W Santa Monica Boulevard

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	١	Westbound North			Northboun	bound Eastbound				
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	0	0	0	0	406	31	77	0	106	80	452	0	1152
15:15	0	0	0	0	408	44	80	0	105	73	396	0	1106
15:30	0	0	0	0	432	43	63	0	120	73	442	0	1173
15:45	0	0	0	0	395	47	65	0	108	72	457	0	1144
16:00	0	0	0	0	419	48	61	0	95	102	484	0	1209
16:15	0	0	0	0	349	38	113	0	72	79	414	0	1065
16:30	0	0	0	0	390	31	80	0	109	81	465	0	1156
16:45	0	0	0	0	396	36	82	0	112	81	442	0	1149
17:00	0	0	0	0	472	29	53	0	137	77	452	0	1220
17:15	0	0	0	0	466	39	69	0	141	92	418	0	1225
17:30	0	0	0	0	471	28	91	0	142	101	484	0	1317
17:45	0	0	0	0	457	58	79	0	160	103	371	0	1228
Total Volume:	0	0	0	0	5061	472	913	0	1407	1014	5277	0	14144
Approach %	0%	0%	0%	0%	91%	9%	39%	0%	61%	16%	84%	0%	
Peak Hr Begin:	17:00												
PHV	0	0	0	0	1866	154	292	0	580	373	1725	0	4990
PHF		0.000			0.981			0.912			0.897		0.947

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

Leg:	North		Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	19	0	0	0
7:15	0	0	0	0	16	0	0	0
7:30	0	0	0	0	26	0	0	0
7:45	0	0	1	0	33	1	0	0
8:00	0	0	0	0	26	1	0	0
8:15	0	0	0	0	36	1	0	0
8:30	0	0	0	0	30	1	0	0
8:45	0	0	0	0	37	1	0	0
9:00	0	0	0	0	23	0	0	0
9:15	0	0	0	0	25	0	0	0
9:30	0	0	0	0	49	0	0	0
9:45	0	0	0	0	37	0	0	0

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	West		
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	
15:00	0	0	0	0	57	2	0	0	
15:15	0	0	0	0	58	5	0	0	
15:30	0	0	0	0	60	4	0	0	
15:45	0	0	1	0	74	1	2	0	
16:00	0	0	0	0	59	1	3	0	
16:15	0	0	1	0	68	1	2	0	
16:30	0	0	0	0	53	0	0	0	
16:45	0	0	0	0	67	3	0	0	
17:00	0	0	0	0	51	1	0	0	
17:15	0	0	0	0	65	1	0	0	
17:30	0	0	0	0	45	1	0	0	
17:45	0	0	1	0	56	0	0	0	

## **Turning Movement Count Report AM**

Location ID: 3 North/South: Av East/West: Sa

Avenue of the Stars Santa Monica Boulevard Date: 04/09/19 City: Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	٢	Vorthboun	d		Eastbouna	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	0	0	0	0	311	88	46	0	39	105	256	2	847
7:15	0	0	0	0	319	97	45	0	50	130	326	3	970
7:30	0	0	0	0	373	98	66	0	60	131	353	5	1086
7:45	0	0	0	0	346	102	70	0	81	109	466	2	1176
8:00	0	0	0	0	343	158	99	0	79	126	448	0	1253
8:15	0	0	0	0	386	134	112	0	62	123	535	4	1356
8:30	0	0	0	0	351	158	109	0	86	145	498	6	1353
8:45	0	0	0	0	324	147	99	0	56	141	527	8	1302
9:00	0	0	0	0	298	181	121	0	68	151	492	5	1316
9:15	0	0	0	0	351	149	126	0	64	145	526	6	1367
9:30	0	0	0	0	364	168	118	0	53	142	476	8	1329
9:45	0	0	0	0	346	121	98	0	66	127	471	13	1242
Total Volume:	0	0	0	0	4112	1601	1109	0	764	1575	5374	62	14597
Approach %	0%	0%	0%	0%	72%	28%	59%	0%	41%	22%	77%	1%	
Peak Hr Begin:	8:30												
PHV	0	0	0	0	1324	635	455	0	274	582	2043	25	5338
PHF	0.000			0.962			0.935			0.979			

## **Turning Movement Count Report PM**

Location ID: 3 North/South: Avenu East/West: Santa

Avenue of the Stars Santa Monica Boulevard Date: 04/09/19 City: Los Angeles, CA

	S	outhboun	d	I	Nestbound	1	٨	Vorthboun	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	0	0	0	0	375	73	105	0	90	94	412	12	1161
15:15	0	0	0	0	428	63	125	0	119	108	398	11	1252
15:30	0	0	0	0	381	86	100	0	107	119	420	13	1226
15:45	0	0	0	0	409	86	110	0	120	113	409	8	1255
16:00	0	0	0	0	379	80	137	0	128	123	446	14	1307
16:15	0	0	0	0	336	75	128	0	106	105	408	11	1169
16:30	0	0	0	0	363	73	165	0	105	99	423	17	1245
16:45	0	0	0	0	413	78	155	0	127	118	398	12	1301
17:00	0	0	0	0	417	88	184	0	135	112	373	13	1322
17:15	0	0	0	0	458	92	160	0	173	104	381	8	1376
17:30	0	0	0	0	411	81	190	0	175	103	445	18	1423
17:45	0	0	0	0	452	80	170	0	162	99	371	14	1348
Total Volume:	0	0	0	0	4822	955	1729	0	1547	1297	4884	151	15385
Approach %	0%	0%	0%	0%	83%	17%	53%	0%	47%	20%	77%	2%	
		•											
Peak Hr Begin:	17:00												
PHV	0	0	0	0	1738	341	704	0	645	418	1570	53	5469
PHF		0.000			0.945			0.924			0.902		0.961

Leg:	North		Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	6	0	22	0	0	0
7:15	0	0	5	0	6	0	0	0
7:30	0	0	14	1	14	1	0	0
7:45	0	0	12	1	11	3	2	0
8:00	0	0	18	0	12	1	1	0
8:15	0	0	17	0	22	0	0	0
8:30	0	0	16	0	14	1	0	0
8:45	0	0	12	1	28	1	0	0
9:00	0	0	18	0	16	0	2	0
9:15	0	0	16	1	15	0	1	0
9:30	0	0	9	0	8	0	1	0
9:45	0	0	13	2	22	2	2	0

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	0	0	4	1	36	1	0	0
15:15	0	0	5	0	23	2	0	0
15:30	0	0	3	0	22	5	1	0
15:45	0	0	15	1	28	0	0	0
16:00	0	0	10	0	25	1	0	0
16:15	0	0	4	1	14	3	0	0
16:30	0	0	6	0	19	1	1	0
16:45	0	0	10	0	15	1	0	0
17:00	0	0	9	0	16	1	0	0
17:15	0	0	10	0	19	2	0	0
17:30	0	0	10	0	27	0	0	0
17:45	0	0	6	0	17	2	0	0

## **Turning Movement Count Report AM**

Location ID: North/South:

East/West:

Beverly Glen Boulevard Olympic Boulevard

4

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	I	Nestbound	1	1	Vorthbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	38	48	18	17	335	7	12	113	35	14	214	29	880
7:15	51	66	24	21	410	14	14	153	42	18	258	35	1106
7:30	76	90	30	30	480	23	20	173	54	18	334	60	1388
7:45	84	93	38	25	455	9	28	154	73	23	453	80	1515
8:00	56	98	43	24	375	11	40	202	89	27	486	88	1539
8:15	75	88	58	20	494	8	50	179	36	18	605	91	1722
8:30	78	91	59	19	319	8	72	261	56	19	535	78	1595
8:45	69	89	59	33	431	11	59	171	50	20	632	56	1680
9:00	63	92	72	24	370	16	93	186	36	6	521	59	1538
9:15	56	80	56	25	455	13	96	169	30	17	626	49	1672
9:30	50	88	74	23	453	17	82	208	38	17	495	48	1593
9:45	57	85	51	28	451	22	45	136	37	28	511	58	1509
Total Volume:	753	1008	582	289	5028	159	611	2105	576	225	5670	731	17737
Approach %	32%	43%	25%	5%	92%	3%	19%	64%	17%	3%	86%	11%	
Peak Hr Begin:	8:00												
PHV	278	366	219	96	1619	38	221	813	231	84	2258	313	6536
PHF		0.946			0.840			0.813			0.930		0.949

## **Turning Movement Count Report PM**

Location ID: North/South:

East/West:

Beverly Glen Boulevard Olympic Boulevard

4

Date: 04/09/19 City: Los Angeles, CA

	S	outhboun	d	I	Nestbound	1	1	Vorthbound	d		Eastbound	1	1
_	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	49	180	54	24	404	45	30	142	38	17	282	32	1297
15:15	52	200	41	35	498	49	28	122	36	16	275	33	1385
15:30	64	202	59	35	452	41	38	161	39	10	235	38	1374
15:45	59	180	46	26	485	43	24	129	33	17	340	37	1419
16:00	47	198	67	38	419	53	26	168	33	29	374	53	1505
16:15	50	193	63	33	504	35	11	154	21	13	397	33	1507
16:30	41	173	50	27	437	33	27	148	33	25	371	52	1417
16:45	58	180	57	44	533	37	18	162	27	13	375	63	1567
17:00	45	218	67	23	500	47	30	147	32	28	387	51	1575
17:15	48	187	60	26	591	40	19	168	53	30	369	39	1630
17:30	45	192	80	15	501	54	21	165	47	32	346	65	1563
17:45	54	174	74	24	592	34	19	145	46	38	429	50	1679
Total Volume:	612	2277	718	350	5916	511	291	1811	438	268	4180	546	17918
Approach %	17%	63%	20%	5%	87%	8%	11%	71%	17%	5%	84%	11%	
		•											
Peak Hr Begin:	17:00		-		-		-	-		-	-	-	-
PHV	192	771	281	88	2184	175	89	625	178	128	1531	205	6447
PHF		0.942			0.931			0.929			0.901		0.960

Leg:	North		Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	1	0	1	0	0	0
7:15	1	0	1	0	0	0	1	0
7:30	2	0	2	0	1	0	2	0
7:45	2	0	0	0	4	0	1	0
8:00	3	0	2	0	2	1	1	0
8:15	2	0	3	0	6	1	1	0
8:30	0	0	7	0	3	0	3	0
8:45	0	0	5	1	4	0	0	0
9:00	1	0	0	1	1	1	0	0
9:15	2	0	1	0	3	0	2	1
9:30	0	0	6	0	3	1	1	0
9:45	3	0	2	0	2	0	1	0

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	0	3	0	3	0	1	0
15:15	6	2	1	0	5	0	2	0
15:30	2	0	2	1	0	0	2	1
15:45	0	0	1	1	1	0	0	0
16:00	0	0	4	2	3	0	1	0
16:15	0	0	1	0	2	1	2	0
16:30	1	0	6	0	6	0	1	0
16:45	0	0	3	1	4	0	0	0
17:00	0	0	2	0	5	0	0	0
17:15	0	0	4	0	1	0	0	0
17:30	0	0	4	1	1	2	0	2
17:45	0	0	5	0	2	0	2	0

# Turning Movement Count Report AM

Location ID: North/South:

East/West:

Century Park W Olympic Boulevard

5

Date:	04/09/19
City:	Los Angeles, CA

	S	outhboun	d		Nestbound	1	1	Vorthboun	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	14	0	5	20	354	0	0	0	0	0	182	48	623
7:15	13	0	7	33	444	0	0	0	0	0	268	52	817
7:30	12	0	9	32	496	0	0	0	0	0	322	66	937
7:45	23	0	11	46	473	0	0	0	0	0	385	91	1029
8:00	24	0	9	45	422	0	0	0	0	0	457	133	1090
8:15	20	0	7	56	492	0	0	0	0	0	546	139	1260
8:30	22	0	11	69	383	0	0	0	0	0	543	140	1168
8:45	25	0	19	72	453	0	0	0	0	0	625	158	1352
9:00	22	0	18	64	449	0	0	0	0	0	559	169	1281
9:15	21	0	18	70	460	0	0	0	0	0	629	163	1361
9:30	43	0	25	57	424	0	0	0	0	0	580	141	1270
9:45	17	0	13	65	478	0	0	0	0	0	504	112	1189
Total Volume:	256	0	152	629	5328	0	0	0	0	0	5600	1412	13377
Approach %	63%	0%	37%	11%	89%	0%	0%	0%	0%	0%	80%	20%	
Peak Hr Begin:	8:45												
PHV	111	0	80	263	1786	0	0	0	0	0	2393	631	5264
PHF		0.702			0.967			0.000			0.955		0.967

## **Turning Movement Count Report PM**

Location ID: North/South:

East/West:

Century Park W Olympic Boulevard

5

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	1	Vorthboun	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	89	0	54	35	434	0	0	0	0	0	349	49	1010
15:15	135	0	67	49	444	0	0	0	0	0	295	40	1030
15:30	132	0	74	35	418	0	0	0	0	0	332	64	1055
15:45	120	0	64	36	454	0	0	0	0	0	324	46	1044
16:00	104	0	76	42	440	0	0	0	0	0	463	50	1175
16:15	68	0	62	39	524	0	0	0	0	0	431	41	1165
16:30	95	0	49	35	393	0	0	0	0	0	430	78	1080
16:45	79	0	68	52	370	0	0	0	0	0	370	62	1001
17:00	98	0	55	39	530	0	0	0	0	0	441	60	1223
17:15	82	0	63	45	570	0	0	0	0	0	385	43	1188
17:30	72	0	58	46	476	0	0	0	0	0	413	51	1116
17:45	83	0	63	49	474	0	0	0	0	0	419	60	1148
Total Volume:	1157	0	753	502	5527	0	0	0	0	0	4652	644	13235
Approach %	61%	0%	39%	8%	92%	0%	0%	0%	0%	0%	88%	12%	
Peak Hr Begin:	17:00												
PHV	335	0	239	179	2050	0	0	0	0	0	1658	214	4675
PHF		0.938			0.906			0.000			0.934		0.956

Leg:	North		Ec	ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	1	0	0	0	0	0
7:15	5	0	2	0	0	0	0	0
7:30	4	1	1	0	0	0	2	0
7:45	4	0	2	0	0	0	1	0
8:00	3	1	4	2	0	0	6	0
8:15	9	1	4	0	0	0	8	1
8:30	7	0	4	0	0	0	6	0
8:45	6	1	0	1	0	0	2	0
9:00	2	0	9	2	0	0	4	0
9:15	3	0	2	0	0	0	1	0
9:30	3	0	5	0	0	0	4	0
9:45	1	1	2	0	0	0	1	0

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	2	0	3	0	0	0	0	0
15:15	5	0	3	0	0	0	0	0
15:30	1	0	4	0	0	0	2	0
15:45	3	0	2	0	0	0	3	0
16:00	2	0	1	0	0	0	4	0
16:15	4	0	1	0	0	0	8	0
16:30	2	0	0	0	0	0	3	0
16:45	6	1	2	1	0	0	1	2
17:00	3	0	0	0	0	0	2	0
17:15	4	0	3	0	0	0	5	0
17:30	6	0	3	0	0	0	4	0
17:45	2	0	0	1	0	0	2	3

## **Turning Movement Count Report AM**

Location ID: 6 North/South: Be

East/West:

Beverly Glen Boulevard Pico Boulevard

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	١	Vestbound	1	1	Vorthboun	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	40	0	28	92	270	0	0	0	0	0	182	74	686
7:15	49	0	37	118	341	0	0	0	0	0	230	82	857
7:30	52	0	65	128	357	0	0	0	0	0	247	97	946
7:45	70	0	73	92	312	0	0	0	0	0	330	126	1003
8:00	61	0	54	86	296	0	0	0	0	0	378	145	1020
8:15	66	0	56	88	280	0	0	0	0	0	419	160	1069
8:30	48	0	47	101	262	0	0	0	0	0	449	160	1067
8:45	56	0	62	82	224	0	0	0	0	0	499	172	1095
9:00	42	0	53	65	223	0	0	0	0	0	451	195	1029
9:15	57	0	63	79	246	0	0	0	0	0	425	188	1058
9:30	50	0	60	68	227	0	0	0	0	0	386	162	953
9:45	53	0	67	59	187	0	0	0	0	0	337	135	838
Total Volume:	644	0	665	1058	3225	0	0	0	0	0	4333	1696	11621
Approach %	49%	0%	51%	25%	75%	0%	0%	0%	0%	0%	72%	28%	
		-											
Peak Hr Begin:	8:15												
PHV	212	0	218	336	989	0	0	0	0	0	1818	687	4260
PHF		0.881			0.900			0.000			0.933		0.973

## **Turning Movement Count Report PM**

Location ID: 6 North/South: Be

East/West:

Beverly Glen Boulevard Pico Boulevard

Date:	04/09/19
City:	Los Angeles, CA

	S	outhboun	d	I	Nestbound	1	1	Vorthboun	d		Eastbound	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	111	0	97	60	256	0	0	0	0	0	265	106	895
15:15	121	0	93	77	276	0	0	0	0	0	309	115	991
15:30	110	0	102	62	264	1	0	0	0	0	273	124	936
15:45	105	0	98	63	266	0	0	0	0	0	281	127	940
16:00	89	0	92	55	306	0	0	0	0	0	253	120	915
16:15	103	0	77	56	307	0	0	0	0	0	299	116	958
16:30	84	0	109	57	295	0	0	0	0	0	215	127	887
16:45	102	0	84	53	316	0	0	0	0	0	267	140	962
17:00	104	0	91	52	394	0	0	0	0	0	263	116	1020
17:15	120	0	82	71	372	0	0	0	0	0	231	152	1028
17:30	117	0	90	63	390	0	0	0	0	0	256	114	1030
17:45	82	0	95	69	397	0	0	0	0	0	265	140	1048
Total Volume:	1248	0	1110	738	3839	1	0	0	0	0	3177	1497	11610
Approach %	53%	0%	47%	16%	84%	0%	0%	0%	0%	0%	68%	32%	
Peak Hr Begin:	17:00												
PHV	423	0	358	255	1553	0	0	0	0	0	1015	522	4126
PHF		0.943			0.970			0.000			0.949		0.984

Leg:	No	North		ast	So	uth	W	est
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	0	0	0	0	0	0
7:15	4	0	0	0	0	0	2	0
7:30	6	0	0	0	0	0	3	0
7:45	2	0	0	0	0	0	2	0
8:00	3	0	0	0	0	0	2	0
8:15	5	0	0	0	0	0	3	0
8:30	2	0	0	0	0	0	0	0
8:45	4	1	0	0	0	0	3	0
9:00	3	0	0	0	0	0	2	0
9:15	1	0	0	0	0	0	3	0
9:30	4	0	0	0	0	0	3	0
9:45	5	0	0	0	0	0	4	0

# Pedestrian/Bicycle Count Report

Leg:	North		Ec	ast	So	uth	West		
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	
15:00	1	0	0	0	0	0	0	0	
15:15	4	0	0	0	0	0	2	1	
15:30	2	0	0	0	0	0	1	0	
15:45	4	0	0	0	0	0	1	0	
16:00	3	0	0	0	0	0	2	0	
16:15	5	1	0	0	0	0	2	0	
16:30	4	0	0	0	0	0	3	0	
16:45	0	1	0	0	0	0	1	0	
17:00	1	0	0	0	0	0	1	0	
17:15	3	0	0	0	0	0	1	0	
17:30	2	0	0	0	0	0	3	1	
17:45	5	1	0	0	0	0	0	0	

# Turning Movement Count Report AM

Location ID: North/South:

East/West:

Kerwood Avenue Pico Boulevard

7

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	1	Vorthboun	d		Eastbound	1	1
_	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
7:00	9	0	2	4	345	3	0	0	0	1	194	4	562
7:15	11	1	8	8	449	9	0	0	1	1	275	5	768
7:30	11	0	6	6	479	3	3	0	0	0	289	4	801
7:45	15	0	8	7	402	2	1	0	0	4	392	11	842
8:00	24	0	4	13	365	2	4	1	3	3	409	13	841
8:15	24	0	2	11	346	4	3	0	1	2	450	20	863
8:30	30	1	16	24	313	6	0	0	3	2	440	20	855
8:45	15	0	13	31	311	2	4	1	2	13	552	11	955
9:00	20	1	5	9	264	3	12	4	5	9	487	11	830
9:15	12	0	6	13	312	10	8	4	7	6	472	16	866
9:30	9	1	5	15	259	4	4	2	5	7	420	13	744
9:45	4	1	6	10	249	2	2	1	1	2	381	9	668
Total Volume:	184	5	81	151	4094	50	41	13	28	50	4761	137	9595
Approach %	68%	2%	30%	4%	95%	1%	50%	16%	34%	1%	96%	3%	
		•											
Peak Hr Begin:	8:00												
PHV	93	1	35	79	1335	14	11	2	9	20	1851	64	3514
PHF		0.686			0.939			0.688			0.840		0.920

## **Turning Movement Count Report PM**

Location ID: North/South:

East/West:

Kerwood Avenue Pico Boulevard

7

Date:	04/09/19
City:	Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	1	Vorthboun	d		Eastbound		1
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
15:00	16	1	7	14	303	11	6	1	0	8	343	5	715
15:15	14	1	10	19	327	4	4	2	2	13	357	8	761
15:30	7	2	10	9	320	7	7	1	3	12	378	16	772
15:45	19	2	17	15	309	13	3	1	2	22	321	14	738
16:00	16	1	10	18	345	11	10	2	8	20	339	5	785
16:15	10	0	6	16	332	4	5	3	5	16	337	2	736
16:30	16	1	16	12	348	6	10	0	2	10	332	2	755
16:45	8	1	12	4	350	5	3	0	3	16	315	1	718
17:00	14	0	10	11	427	9	5	3	4	12	353	2	850
17:15	23	4	11	19	446	10	5	0	0	11	291	1	821
17:30	17	0	10	13	447	10	6	3	1	15	342	8	872
17:45	17	0	9	22	443	26	8	1	5	16	311	14	872
Total Volume:	177	13	128	172	4397	116	72	17	35	171	4019	78	9395
Approach %	56%	4%	40%	4%	94%	2%	58%	14%	28%	4%	94%	2%	
Peak Hr Begin:	17:00												
PHV	71	4	40	65	1763	55	24	7	10	54	1297	25	3415
PHF		0.757			0.959			0.732			0.937		0.979

Leg:	No	rth	Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	5	1	1	0
7:15	4	0	1	0	8	1	1	0
7:30	2	0	1	0	12	0	0	0
7:45	2	1	0	0	13	1	2	0
8:00	5	0	4	0	16	0	1	0
8:15	7	0	4	0	18	0	1	0
8:30	3	0	15	0	19	0	4	0
8:45	19	0	19	0	14	0	2	0
9:00	28	0	33	0	8	0	4	0
9:15	11	0	25	0	5	0	0	1
9:30	8	0	5	0	6	0	1	0
9:45	4	0	1	0	7	0	0	0

# Pedestrian/Bicycle Count Report

Leg:	No	rth	Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	0	0	0	4	1	1	0
15:15	1	0	0	0	3	1	2	0
15:30	1	0	11	0	6	1	0	1
15:45	7	0	41	0	24	1	2	0
16:00	3	0	17	0	8	1	3	0
16:15	3	0	6	0	16	0	3	0
16:30	4	0	1	0	11	1	2	0
16:45	0	1	3	0	6	0	0	0
17:00	1	1	1	0	4	1	4	0
17:15	4	0	1	0	7	0	2	0
17:30	3	0	16	0	6	1	2	0
17:45	13	1	75	0	28	4	6	0

## **Turning Movement Count Report AM**

Location ID: North/South: East/West:

Motor Avenue Pico Boulevard

8

Date: 04/09/19 City: Los Angeles, CA

	S	outhbound	d	١	Nestbound	1	٨	Vorthboun	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	2	0	3	22	306	37	103	0	37	21	137	28	696
7:15	8	0	4	30	393	30	126	1	78	29	178	18	895
7:30	5	0	1	35	430	37	160	0	65	45	256	20	1054
7:45	4	0	2	27	342	50	189	5	69	50	283	39	1060
8:00	7	0	5	39	339	59	221	2	80	26	343	43	1164
8:15	13	0	6	36	268	48	254	4	70	28	343	46	1116
8:30	8	0	7	61	269	54	259	1	73	42	365	66	1205
8:45	13	1	6	95	246	66	312	10	60	36	334	87	1266
9:00	7	0	10	87	244	60	234	19	49	39	395	69	1213
9:15	12	0	10	97	247	49	281	11	66	28	331	84	1216
9:30	13	1	12	94	226	55	166	7	60	31	354	91	1110
9:45	16	0	9	64	203	68	211	6	52	33	258	84	1004
Total Volume:	108	2	75	687	3513	613	2516	66	759	408	3577	675	12999
Approach %	58%	1%	41%	14%	73%	13%	75%	2%	23%	9%	77%	14%	
Peak Hr Begin:	8:30												
PHV	40	1	33	340	1006	229	1086	41	248	145	1425	306	4900
PHF		0.841			0.967			0.900			0.932		0.968

## **Turning Movement Count Report PM**

Location ID: North/South: East/West:

Motor Avenue Pico Boulevard

8

Date: 04/09/19 City: Los Angeles, CA

	S	outhboun	d	I	Nestbound	d	1	Vorthboun	d		Eastbound	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
15:00	38	2	25	14	261	84	80	1	38	42	262	17	864
15:15	32	3	18	15	268	108	105	1	48	51	284	19	952
15:30	49	3	25	11	241	97	123	0	53	48	263	17	930
15:45	37	0	24	19	298	104	79	2	45	66	275	12	961
16:00	65	3	37	11	280	94	103	2	48	41	249	20	953
16:15	46	1	23	10	243	89	88	1	31	44	276	11	863
16:30	48	3	32	8	270	110	99	1	34	50	240	9	904
16:45	42	1	21	7	292	114	92	1	43	50	270	10	943
17:00	84	4	52	7	339	98	105	1	45	30	273	10	1048
17:15	51	0	39	6	394	109	96	0	47	36	294	7	1079
17:30	81	3	45	9	368	106	89	3	37	56	249	7	1053
17:45	86	3	50	9	415	118	92	1	35	61	292	8	1170
Total Volume:	659	26	391	126	3669	1231	1151	14	504	575	3227	147	11720
Approach %	61%	2%	36%	3%	73%	24%	69%	1%	30%	15%	82%	4%	
		-											
Peak Hr Begin:	17:00												
PHV	302	10	186	31	1516	431	382	5	164	183	1108	32	4350
PHF		0.889			0.912			0.912			0.916		0.929

Leg:	No	rth	Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	1	0	0	2	1	4	0
7:15	3	0	0	0	1	0	2	0
7:30	3	0	0	0	1	0	8	0
7:45	1	3	0	0	1	0	12	0
8:00	3	0	0	0	1	0	2	0
8:15	2	1	0	0	1	2	1	0
8:30	0	1	0	0	0	0	4	0
8:45	3	0	0	0	0	0	6	0
9:00	3	1	0	0	5	0	15	0
9:15	2	1	0	0	7	0	5	0
9:30	1	0	0	0	0	0	2	0
9:45	2	2	0	0	0	0	3	1

# Pedestrian/Bicycle Count Report

Leg:	No	rth	Ec	ast	So	uth	West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	1	1	0	0	2	0	3	0
15:15	2	0	0	0	1	0	1	0
15:30	0	1	0	0	0	1	2	1
15:45	0	0	0	0	0	0	4	0
16:00	2	0	0	0	0	0	2	0
16:15	1	0	0	0	1	0	3	0
16:30	3	1	0	0	1	0	1	1
16:45	2	1	0	0	0	0	2	0
17:00	1	2	0	0	0	0	12	4
17:15	7	0	0	0	0	0	6	0
17:30	0	0	0	0	1	0	3	0
17:45	3	0	0	0	1	0	1	3

### **TRAFFIC COUNT SUMMARY**

City of Los Angeles Department of Transportation Count by: Traffic Solution

STREET: North/South BELLWOOD AVENUE (EAST)

East/West	OLYMP	IC BOU	LEVARD					
Day: AM PM	WEDNESDAY WEDNESDAY		Date: APRIL 19 APRIL 19		Weathe	r:	CLEAR	
Hours:	7-10 AM 3-6 PI	M		·				
School Day:	YES		District:	MID WILSHIRE				
DUAL	N/B		S/B		E/B		W/B	
DUAL- WHEELED	N/A		N/A		N/A		N/A	
BIKES	N/A		N/A		N/A		N/A	
BUSES	N/A		N/A		N/A		N/A	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	12	9:45	0	7:00	461	8:00	492	8:30
PM PK 15 MIN	10	5:15	0	3:00	596	4:15	596	3:45
AM PK HOUR	30	9:00	0	7:00	1,788	8:00	1,936	8:00
PM PK HOUR	32	5:00	0	3:00	2,290	4:00	2,350	3:15

#### NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	9	0	14	23
8 - 9	8	0	12	20
9 - 10	5	0	25	30
3 - 4	4	0	7	11
4 - 5	7	0	17	24
5 - 6	10	0	22	32
TOTAL	43	0	97	140
IUTAL	43	U	97	140

#### EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	0	1,471	2	1,473
8 - 9	0	1,784	4	1,788
9 - 10	0	1,722	2	1,724
3 - 4	0	2,080	3	2,083
4 - 5	0	2,285	5	2,290
5 - 6	0	2,234	6	2,240
TOTAL	0	11,576	22	11,598

SOUTHBOUND	D Appro	ach			TOTAL	XING S/L	XING N/L
Hours	Lt	Th	Rt	Total	N-S	Ped Sch	Ped Sch
7 - 8	0	0	0	0	23	N/A N/A	N/A N/A
8 - 9	0	0	0	0	20	N/A N/A	N/A N/A
9 - 10	0	0	0	0	30	N/A N/A	N/A N/A
3 - 4	0	0	0	0	11	N/A N/A	N/A N/A
4 - 5	0	0	0	0	24	N/A N/A	N/A N/A
5 - 6	0	0	0	0	32	N/A N/A	N/A N/A
TOTAL	0	0	0	0	140	N/A N/A	N/A N/A
WESTBOUND	Approa	ch			TOTAL	XING W/L	XING E/L

Hours	Lt	Th	Rt	Total	E-W	Ped Sch	Ped Sch
7 - 8	10	1,573	0	1,583	3,056	N/A N/A	N/A N/A
8 - 9	6	1,930	0	1,936	3,724	N/A N/A	N/A N/A
9 - 10	6	1,880	0	1,886	3,610	N/A N/A	N/A N/A
3 - 4	24	2,263	0	2,287	4,370	N/A N/A	N/A N/A
4 - 5	28	2,263	0	2,291	4,581	N/A N/A	N/A N/A
5 - 6	29	2,152	0	2,181	4,421	N/A N/A	N/A N/A
L							<u> </u>
TOTAL	103	12,061	0	12,164	23,762	N/A N/A	N/A N/A

### TRAFFIC COUNT SUMMARY

City of Los Angeles Department of Transportation Count by: Traffic Solution

STREET: North/South BELLWOOD AVENUE (WEST)

East/West	OLYMP	IC BOUL	EVARD					
Day: AM PM	WEDNESDAY WEDNESDAY		Date: APRIL 19, APRIL 19,		Weathe	r: <u>(</u>	CLEAR	
Hours:	7-10 AM 3-6 PM	Λ	<u></u> ,					
School Day:	YES		District:	MID WILSHIRE				
	N/B		S/B		E/B		W/B	
DUAL-			3/6		<u> </u>		VV/D	
WHEELED	N/A		N/A		N/A		N/A	
BIKES	N/A		N/A		N/A		N/A	
BUSES	N/A		N/A		N/A		N/A	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	7	8:45	20	9:45	481	8:15	500	8:30
PM PK 15 MIN	8	5:45	32	5:30	609	4:15	602	4:45
AM PK HOUR	20	8:00	58	9:00	1,856	8:00	1,906	8:30
PM PK HOUR	20	3:00	105	5:00	2,373	4:00	2,337	4:15

4 - 5

5 - 6

TOTAL

#### NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	4	0	8	12
8 - 9	4	1	15	20
9 - 10	10	0	3	13
3 - 4	7	0	13	20
4 - 5 5 - 6	8	0	8	16
5 - 6	7	0	11	18
		÷		
TOTAL	40	1	58	99

#### EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	43	1,401	17	1,461
8 - 9	53	1,790	13	1,856
9 - 10	76	1,747	11	1,834
3 - 4	64	2,156	18	2,238
4 - 5	70	2,288	15	2,373
5 - 6	58	2,155	17	2,230
TOTAL	364	11,537	91	11,992

SOUTHBO	JND Appro	bach			TOTAL	XING S/L	XING N/L
Hours	Lt	Th	Rt	Total	N-S	Ped Sch	Ped Sch
7 - 8	9	0	22	31	43	N/A N/A	N/A N/A
8 - 9	9	0	45	54	74	N/A N/A	N/A N/A
9 - 10	10	0	48	58	71	N/A N/A	N/A N/A
3 - 4	7	0	70	77	97	N/A N/A	N/A N/A
4 - 5	11	0	72	83	99	N/A N/A	N/A N/A
5 - 6	8	0	97	105	123	N/A N/A	N/A N/A
TOTAL	54	0	354	408	507	N/A N/A	N/A N/A
WESTBOU	ND Approa	ich			TOTAL	XING W/L	XING E/L
Hours	Lt	Th	Rt	Total	E-W	Ped Sch	Ped Sch
7 - 8	5	1,627	11	1,643	3,104	N/A N/A	N/A N/A
8 - 9	21	1,859	18	1,898	3,754	N/A N/A	N/A N/A
9 - 10	12	1,854	21	1,887	3,721	N/A N/A	N/A N/A
3 - 4	10	2,255	14	2,279	4,517	N/A N/A	N/A N/A
	-		_				

2,335

2,281

12,323

4,708

4,511

24,315

N/A N/A

N/A N/A

N/A N/A

N/A N/A

N/A N/A

N/A N/A

8 2,320 13 2,257

69 12,172

7

11

82

Appendix C

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:



*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?

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.

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	<b>√</b> 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?  $\Box$  Yes  $\Box$  No  $\checkmark$ 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.

Bellwood Avenue Frontage 1 Existing PROW'/Curb' : Existing	48'/18'	Required 50'/20'	_Proposed_50'/20'
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.<sup>1</sup>

Is the project within the service area of Metro Bike Share, or is there demonstrated demand for micromobility 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 offsite street loading areas.* 

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

<sup>&</sup>lt;sup>1</sup> LADOT Transportation Assessment Support Map <u>https://arcg.is/fubbD</u>



B.1 Does the project 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 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
- 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 offsite 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<sup>2</sup> 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
- locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk



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**

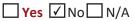
If the answer to either **B.1 or B.2 are YES**, City plans and policies should be reviewed in light of the proposed physical changes to determine if the City would be obstructed from carrying out the plans and policies. The analysis should pay special consideration to substantial changes to the Public 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.<sup>3</sup>

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?



<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> LADOT Transportation Assessment Support Map <u>https://arcg.is/fubbD</u>



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 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-ofway.

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?

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 V/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.

*Mobility Plan 2035 Policy 4.13* – Parking and Land Use Management: Balance on-street and offstreet 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<sup>4</sup> 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?



<sup>&</sup>lt;sup>4</sup> 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.



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?



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 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?

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 <u>Street Standard Dimensions S-470-1</u> <u>http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1 20151021 150849.pdf</u>

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

LADOT Transportation Assessment Support Map <a href="https://arcg.is/fubbD">https://arcg.is/fubbD</a>

Mobility Plan 2035 <u>https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility\_Plan\_2035.pdf</u>

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

### ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

<u>The Transportation Element of the City's General Plan, Mobility Plan 2035</u>, 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 <u>Plan for A Healthy Los Angeles</u> (March 2015) includes policies directing several City departments to develop plans that promote active transportation and safety.

The <u>City of Los Angeles Community Plans, which make up the Land Use Element of the City's General Plan</u>, 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 <u>Vision Zero</u> 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 <u>Vision Zero Corridor Plans</u> 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 <u>Citywide Design Guidelines</u> (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 <u>Transportation Demand Management (TDM) Ordinance (LA Municipal Code 12.26.J)</u> 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 <u>LAMC Section 12.37 (Waivers of Dedication and Improvement)</u> 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) <u>Street Standard Dimensions S-470-1</u> provides the specific street widths and public right of way dimensions associated with the City's street standards.

Appendix D

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	Existing La	nd Use	se	
Project:	Senior Residential Living at the Bellwood	Land Use Type	Value	Unit	
Scenario:	Project	riousing infanti ranny	<ul> <li>112</li> <li>112</li> <li>DU</li> </ul>	DU	
Address:	10366 W BELLWOOD AVE, 90064 Q	······································			
	VENTURA VENTURA DE LANIZACIÓN DE	Click here to add a single custom land use ty Proposed Proje Land Use Type			
		Housing   Multi-Family	-	DU	
is the p	roject replacing an existing number of	(custom) Eldercare   Daily (custom) Eldercare   HBW-Attraction Split (custom) Eldercare   HBO-Attraction Split		os rcent rcent	

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?



La	and Use Type		Value	Unit	
Housing   Multi-Fam	ily	-		DU	
(custom) Eldercare	Daily	533	Trip	os	
(custom) Eldercare	HBW-Attraction Split	45	Per	rcent	
(custom) Eldercare	HBO-Attraction Split	10	Per	rcent	
(custom) Eldercare	NHB-Attraction Split	20	Per	rcent	
(custom) Eldercare	HBW-Production Split	5	Per	rcent	
(custom) Eldercare	HBO-Production Split	10	Per	rcent	
(custom) Eldercare	NHB-Production Split	10	Per	rcent	
(custom) Eldercare	Daily	231	Re	sidents	
(custom) Eldercare	Daily	88	Em	ployees	
(custom) Eldercare	Daily	Non-	Retail Ret	tail/Non-Re	3

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

### **Project Screening Summary**

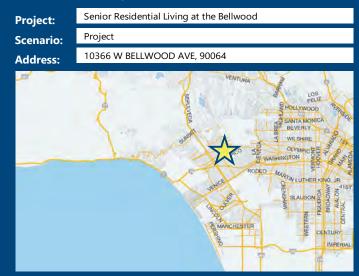
	Existing Land Use	Propos Projec	
	<b>477</b> Daily Vehicle Trips	402 Daily Vehicle	
	<b>3,153</b> Daily VMT	<b>3,19</b> Daily VN	2
	Tier 1 Screen	ing Criteria	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station.			
	Tier 2 Screen	ing Criteria	
	The net increase in daily tri	ps < 250 trips	- <b>75</b> Net Daily Trips
	The net increase in daily VN	<b>/</b> T ≤ 0	<b>39</b> Net Daily VMT
	The proposed project consi		0.000 ksf
-	land uses ≤ 50,000 square f		



# **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**



### **Project Information**



Proposed Project Land Use Type	Value	Unit
(custom) Eldercare   Daily	533	Trips
(custom) Eldercare   HBW-Attraction Split	45	Percent
(custom) Eldercare   HBO-Attraction Split	10	Percent
(custom) Eldercare   NHB-Attraction Split	20	Percent
(custom) Eldercare   HBW-Production Split	5	Percent
(custom) Eldercare   HBO-Production Split	10	Percent
(custom) Eldercare   NHB-Production Split	10	Percent
(custom) Eldercare   Daily	231	Residents
(custom) Eldercare   Daily	88	Employees
(custom) Eldercare   Daily	Non-Retail	Retail/Non-Re

### **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 With Mitigation **Proposed Project** Max Home Based TDM Achieved? No No Max Work Based TDM Achieved? No No A Parking Reduce Parking Supply 100 city code parking provision for the project site 74 actual parking provision for the project site Proposed Prj Mitigation Unbundle Parking monthly parking cost (dollar) for the project 175 Proposed Prj Mitigation site Parking Cash-Out 50 percent of employees eligible Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) 6.00 \_ percent of employees subject to priced 50 parking Proposed Prj Mitigation Residential Area Parking Permits 200 cost (dollar) of annual permit Proposed Prj Mitigation В Transit C **Education & Encouragement** D **Commute Trip Reductions** E **Shared Mobility** F **Bicycle Infrastructure** G **Neighborhood Enhancement**

### **Analysis Results**

Proposed Project	With Mitigation		
400	400		
Daily Vehicle Trips	Daily Vehicle Trips		
3,171	3,171		
Daily VMT	Daily VMT		
N/A	N/A		
Houseshold VMT	Houseshold VMT		
per Capita	per Capita		
N/A	N/A		
Work VMT	Work VMT		
per Employee	per Employee		
Significant \	/MT Impact?		
Household: N/A	Household: N/A		
Threshold = 7.4	Threshold = 7.4		
15% Below APC	15% Below APC		
Work: N/A	Work: N/A		
Threshold = 11.1	Threshold = 11.1		
15% Below APC	15% Below APC		

<u>Measuring the Miles</u>

# **CITY OF LOS ANGELES VMT CALCULATOR**

### **Report 1: Project & Analysis Overview**

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064

Date: December 15, 2020



Project Information								
Land	l Use Type	Value	Units					
	Single Family	0	DU					
	Multi Family	0	DU					
Housing	Townhouse	0	DU					
	Hotel	0	Rooms					
	Motel	0	Rooms					
	Family	0	DU					
Affordable Housing	Senior	0	DU					
Affordable Housing	Special Needs	0	DU					
	Permanent Supportive	0	DU					
	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					
Retail	High-Turnover Sit-Down	0.000	lief					
Netuli	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					
Office	Medical Office	0.000	ksf					
	Light Industrial	0.000	ksf					
Industrial	Manufacturing	0.000	ksf					
	Warehousing/Self-Storage	0.000	ksf					
	University	0	Students					
	High School	0	Students					
School	Middle School	0	Students					
	Elementary	0	Students					
	Private School (K-12)	0	Students					

Project and Analysis Overview

CITY OF LOS ANGELES VMT CALCULATOR Report 1: Project & Analysis Overview			Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwooc Project Scenario: Project			
		Project Address:	10366 W BELLWOOD	AVE, 90064	Version 1.3	
	Other	Eldercare	533	Trips		

**Report 1: Project & Analysis Overview** 

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064

Date: December 15, 2020



	Analysis Res	sults			
	Total Employees:	88			
	Total Population:	231			
Propos	ed Project	With M	itigation		
400	Daily Vehicle Trips	400	Daily Vehicle Trips		
3,171	Daily VMT	3,171	Daily VMT		
	Household VMT		Household VMT per		
N/A	per Capita	N/A	Capita		
	Work VMT		Work VMT per		
N/A	per Employee	N/A	Employee		
	Significant VMT	· · · · · · · · · · · · · · · · · · ·			
	APC: West Los A				
	Impact Threshold: 15% Belo	ow APC Average			
	Household = 7	7.4			
	Work = 11.1				
	ed Project		itigation		
VMT Threshold	Impact	VMT Threshold	Impact		
Household > 7.4	N/A	Household > 7.4	N/A		
Work > 11.1	N/A	Work > 11.1	N/A		

#### **Report 2: TDM Inputs**

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



Reduce parking Unbundle parkir	Actual parking provision (spaces) Monthly cost for	0	0
	Actual parking provision (spaces) Monthly cost for	0	0
Unbundle parkir	Monthly cost for		
	parking (\$)	\$0	\$0
Parking Parking cash-ou	t Employees eligible (%)	0%	0%
Price workplace	Daily parking charge (\$)	\$0.00	\$0.00
parking	Employees subject to priced parking (%)	0%	0%
Residential area parking permits	· · · · ·	\$0	<i>\$0</i>

(cont. on following page)

#### **Report 2: TDM Inputs**

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



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

#### **Report 2: TDM Inputs**

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



Strate	еду Туре	Description	Proposed Project	Mitigations	
	Required commute trip reduction program	Employees participating (%)	0%	0%	
	Alternative Work Schedules and	Employees participating (%)	0%	0%	
	Telecommute	Type of program	0	0	
Commute Trip Reductions		Degree of implementation (low, medium, high)	0	0	
	Employer sponsored vanpool or shuttle	Employees eligible (%)	0%	0%	
		Employer size (small, medium, large)	0	0	
	Ride-share program	Employees eligible (%)	0%	0%	
	Car share	Car share project setting (Urban, Suburban, All Other)	0	0	
Shared Mobility	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	

#### **Report 2: TDM Inputs**

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



	TDM	Strategy Inputs,	Cont.		
Strate	еду Туре	Description	<b>Proposed Project</b>	Mitigations	
	Implement/Improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0	
Bicycle Infrastructure	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	
	Traffic calming	Streets with traffic calming improvements (%)	0%	0%	
Neighborhood	improvements	Intersections with traffic calming improvements (%)	0%	0%	
Enhancement	Pedestrian network improvements	Included (within project and connecting off- site/within project only)	0	0	

Report 3: TDM Outputs

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwood Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



					•			se & Stra	- 01						
		Home Br	ased Work	Home Bo	sed Work	Place type:	sed Other		ased Other	Non-Home	Based Other	Non-Home	Based Other		
			luction		iction		luction		action		luction		action	Source	
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated		
	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1	
Parking	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Park	
Turking	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1 - 5	
	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%		
	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy	
Transit	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Transit sections 1 - 3	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Education &	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education &	
Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Encourageme sections 1 - 2	
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Stratog	
Commute Trip Reductions	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Tri Reductions	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1 - 4	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	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	
Shared Mobility	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%	Appendix, Sha	
ona.cu mobility	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%	Mobility sectio 1 - 3	

Report 3: TDM Outputs

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwood Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



TDM Adjustments by Trip Purpose & Strategy, Cont.														
Place type: Compact Infill														
			Home Based Work         Home Based Other         Home Based Other         Non-Home Based Other </th <th></th> <th>er Source</th>								er Source			
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle	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
Infrastructure	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%	sections 1 - 3
Neighborhood	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,
Enhancement	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%	Neighborhood Enhancement

	Final Combined & Maximum TDM Effect											
	Home Ba: Produ		Home Ba Attra	sed Work ction	Home Bas Produ		Home Ba. Attra	sed Other Iction		Based Other uction	Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
MAX. TDM EFFECT	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

= Mini	<b>= Minimum (X%, 1-[(1-A)*(1-B)])</b> where X%=									
PLACE	urban	75%								
ТҮРЕ	compact infill	40%								
MAX:	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.

Date: December 15, 2020 Project Name: Senior Residential Living at the Bellwooc Project Scenario: Project Project Address: 10366 W BELLWOOD AVE, 90064



# Report 4: MXD Methodology

MXD Methodology - Project Without TDM										
Unadjusted Trips MXD Adjustment MXD Trips Average Trip Length Unadjusted VMT MXD VMT										
Home Based Work Production	27	-44.4%	15	5.6	151	84				
Home Based Other Production	53	-39.6%	32	4.9	260	157				
Non-Home Based Other Production	53	-5.7%	50	8.1	429	405				
Home-Based Work Attraction	240	-27.9%	173	8.6	2,064	1,488				
Home-Based Other Attraction	53	-41.5%	31	8.4	445	260				
Non-Home Based Other Attraction	107	-5.6%	101	7.9	845	798				

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	-0.6%	15	83	-0.6%	15	83		
Home Based Other Production	-0.6%	32	156	-0.6%	32	156		
Non-Home Based Other Production	-0.6%	50	402	-0.6%	50	402		
Home-Based Work Attraction	-0.6%	172	1,479	-0.6%	172	1,479		
Home-Based Other Attraction	-0.6%	31	258	-0.6%	31	258		
Non-Home Based Other Attraction	-0.6%	100	793	-0.6%	100	793		

MXD VMT Methodology Per Capita & Per Employee												
Total Population: 231 Total Employees: 88												
	APC: West Los Angeles											
	Proposed Project	Project with Mitigation Measures										
Total Home Based Production VMT	239	239										
Total Home Based Work Attraction VMT	1,479	1,479										
Total Home Based VMT Per Capita	N/A	N/A										
Total Work Based VMT Per Employee	N/A	N/A										

#### VMT Calculator User Agreement

The Los Angeles Department of Transportation (LADOT), in partnership with the Department of City Planning and Fehr & Peers, has developed the City of Los Angeles Vehicle Miles Traveled (VMT) Calculator to estimate project-specific daily household VMT per capita and daily work VMT per employee for land use development projects. This application, the VMT Calculator, has been provided to You, the User, to assess vehicle miles traveled (VMT) outcomes of land use projects within the City of Los Angeles. The term "City" as used below shall refer to the City of Los Angeles. The terms "City" and "Fehr & Peers" as used below shall include their respective affiliates, subconsultants, employees, and representatives.

The City is pleased to be able to provide this information to the public. The City believes that the public is most effectively served when they are provided access to the technical tools that inform the public review process of private and public land use investments. However, in using the VMT Calculator, You agree to be bound by this VMT Calculator User Agreement (this Agreement).

VMT Calculator Application for the City of Los Angeles. The City's consultant calibrated the VMT Calculator's parameters in 2018 to estimate travel patterns of locations in the City, and validated those outcomes against empirical data. However, this calibration process is limited to locations within the City, and practitioners applying the VMT Calculator outside of the City boundaries should not apply these estimates without further calibration and validation of travel patterns to verify the VMT Calculator's accuracy in estimating VMT in such other locations.

Limited License to Use. This Agreement gives You a limited, non-transferrable, non-assignable, and nonexclusive license to use and execute a copy of the VMT Calculator on a computer system owned, leased or otherwise controlled by You in Your own facilities, as set out below, provided You do not use the VMT Calculator in an unauthorized manner, and that You do not republish, copy, distribute, reverse-engineer, modify, decompile, disassemble, transfer, or sell any part of the VMT Calculator, and provided that You know and follow the terms of this Agreement. Your failure to follow the terms of this Agreement shall automatically terminate this license and Your right to use the VMT Calculator.

**Ownership.** You understand and acknowledge that the City owns the VMT Calculator, and shall continue to own it through Your use of it, and that no transfer of ownership of any kind is intended in allowing You to use the VMT Calculator.

**Warranty Disclaimer.** In spite of the efforts of the City and Fehr & Peers, some information on the VMT Calculator may not be accurate. The VMT Calculator, OUTPUTS AND ASSOCIATED DATA ARE PROVIDED "as is" WITHOUT WARRANTY OF ANY KIND, whether expressed, implied, statutory, or otherwise including but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

**Limitation of Liability.** It is understood that the VMT Calculator is provided without charge. Neither the City nor Fehr & Peers can be responsible or liable for any information derived from its use, or for any delays, inaccuracies, incompleteness, errors or omissions arising out of your use of the VMT Calculator or with respect to the material contained in the VMT Calculator. You understand and agree that Your sole remedy against the City or Fehr & Peers for loss or damage caused by any defect or failure of the

VMT Calculator, regardless of the form of action, whether in contract, tort, including negligence, strict liability or otherwise, shall be the repair or replacement of the VMT Calculator to the extent feasible as determined solely by the City. In no event shall the City or Fehr & Peers be responsible to You or anyone else for, or have liability for any special, indirect, incidental or consequential damages (including, without limitation, damages for loss of business profits or changes to businesses costs) or lost data or downtime, however caused, and on any theory of liability from the use of, or the inability to use, the VMT Calculator, whether the data, and/or formulas contained in the VMT Calculator are provided by the City or Fehr & Peers, or another third party, even if the City or Fehr & Peers have been advised of the possibility of such damages.

This Agreement and License shall be governed by the laws of the State of California without regard to their conflicts of law provisions, and shall be effective as of the date set forth below and, unless terminated in accordance with the above or extended by written amendment to this Agreement, shall terminate on the earlier of the date that You are not making use of the VMT Calculator or one year after the beginning of Your use of the VMT Calculator.

By using the VMT Calculator, You hereby waive and release all claims, responsibilities, liabilities, actions, damages, costs, and losses, known and unknown, against the City and Fehr & Peers for Your use of the VMT Calculator.

Before making decisions using the information provided in this application, contact City LADOT staff to confirm the validity of the data provided.

Print and sign below, and submit to LADOT along with the transportation assessment Memorandum of Understanding (MOU).

You, the User	
Ву:	
Print Name:	
Title:	
Company:	
Address:	
Phone:	
Email Address:	
Date:	

Appendix E

HCM Analysis Worksheets

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020
------------

	۶	-	$\mathbf{r}$	*	+	•	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	ተተተ		ሻሻ	<b>*††</b>	1	ሻሻ	<b>††</b>	1	ካካ	- <b>†</b> †	1
Traffic Volume (veh/h)	120	1812	0	174	1289	188	130	685	419	501	609	132
Future Volume (veh/h)	120	1812	0	174	1289	188	130	685	419	501	609	132
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	1070	No	•	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	1970	0	189	1401	204	141	745	455	545	662	143
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	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	1787	0	144	1745	740	196	1128	503	432	1371	612
Arrive On Green	0.05	0.35	0.00	0.08	0.68	0.68	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	3456	5274	0	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	130	1970	0	189	1401	204	141	745	455	545	662	143
Grp Sat Flow(s),veh/h/ln	1728	1702	0	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.5	42.0	0.0	5.0	23.1	5.3	4.8	21.7	33.0	15.0	16.9	7.3
Cycle Q Clear(g_c), s	4.5	42.0	0.0	5.0	23.1	5.3	4.8	21.7	33.0	15.0	16.9	7.3
Prop In Lane	1.00	1707	0.00	1.00	1745	1.00	1.00	1100	1.00	1.00	1071	1.00
Lane Grp Cap(c), veh/h	173	1787	0	144 1.31	1745	740	196	1128	503	432	1371	612
V/C Ratio(X)	0.75 173	1.10 1787	0.00	1.31	0.80 1745	0.28 740	0.72 259	0.66 1128	0.90 503	1.26 432	0.48 1371	0.23 612
Avail Cap(c_a), veh/h HCM Platoon Ratio	1/3	1.00	0 1.00	2.00	2.00	2.00	1.00	1.00	1.00	432	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.92	0.92	0.92	0.13	0.13	0.13	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	39.0	0.00	55.0	16.2	8.9	55.7	35.4	39.2	52.5	27.8	24.9
Incr Delay (d2), s/veh	15.2	55.1	0.0	178.7	3.7	0.9	0.5	0.4	4.0	135.2	1.2	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.4	0.0	0.0	0.0	0.9
%ile BackOfQ(85%),veh/ln	3.9	33.8	0.0	8.6	7.9	3.0	2.7	10.6	14.6	20.4	10.2	4.7
Unsig. Movement Delay, s/veh		55.0	0.0	0.0	1.7	5.0	2.1	10.0	14.0	20.4	10.2	т.7
LnGrp Delay(d),s/veh	71.4	94.1	0.0	233.7	19.9	9.7	56.2	35.8	43.2	187.7	29.0	25.8
LnGrp LOS	E	F	A	200.7 F	B	A	E	D	+3.2 D	F	27.0 C	20.0 C
Approach Vol, veh/h	<u> </u>	2100		1	1794		<u> </u>	1341	D	•	1350	
Approach Delay, s/veh		92.7			41.3			40.4			92.8	
Approach LOS		F			-1.5 D			D			72.0 F	
			-				_					
Timer - Assigned Phs	10.0	2	3	4	5	6	/	8				
Phs Duration (G+Y+Rc), s	10.0	46.5 * E E	10.8	52.7	9.0	47.5 * E E	19.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				
Max Green Setting (Gmax), s	6.0	* 41	9.0	44.1	5.0	* 42	15.0	38.1				
Max Q Clear Time (g_c+I1), s	6.5	25.1	6.8	18.9	7.0	44.0	17.0	35.0				
Green Ext Time (p_c), s	0.0	13.3	0.0	9.2	0.0	0.0	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			68.1									
HCM 6th LOS			E									

Notes

	-	$\mathbf{r}$	4	-	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>^</b>	ኘካ	11
Traffic Volume (veh/h)	2473	395	155	1476	163	193
Future Volume (veh/h)	2473	395	155	1476	163	193
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2688	429	168	1604	177	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3381	1219	349	4119	369	298
Arrive On Green	0.66	0.66	0.10	0.81	0.11	0.11
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h	2688	429	168	1604	177	2170
1 12	1702	429	1728	1702	1728	1395
Grp Sat Flow(s),veh/h/ln						
Q Serve(g_s), s	45.1	10.3	5.5	10.6	5.8	8.7
Cycle Q Clear(g_c), s	45.1	10.3	5.5	10.6	5.8	8.7
Prop In Lane	2201	1.00	1.00	1110	1.00	1.00
Lane Grp Cap(c), veh/h	3381	1219	349	4119	369	298
V/C Ratio(X)	0.79	0.35	0.48	0.39	0.48	0.71
Avail Cap(c_a), veh/h	3464	1244	349	4119	369	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.91	0.91	0.40	0.40
Uniform Delay (d), s/veh	14.5	4.4	51.0	3.3	50.5	51.8
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.3	1.8	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	17.1	5.6	4.0	4.5	3.7	8.6
Unsig. Movement Delay, s/ve	h					
LnGrp Delay(d),s/veh	14.6	4.4	51.9	3.5	52.3	57.3
LnGrp LOS	В	А	D	А	D	E
Approach Vol, veh/h	3117			1772	387	
Approach Delay, s/veh	13.2			8.1	55.0	
Approach LOS	B			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.0		18.0	17.3	84.7
		102.0 * 5.2		18.0 * 5.2	17.3 * 5.2	84.7 * 5.2
Change Period (Y+Rc), s						
Max Green Setting (Gmax), s		* 97		* 13	* 11	* 81
Max Q Clear Time (g_c+I1), s	5	12.6		10.7	7.5	47.1
Green Ext Time (p_c), s		26.7		0.4	0.2	32.4
Intersection Summary						
HCM 6th Ctrl Delay			14.5			
HCM 6th LOS			В			

Notes

## HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	∢	-	*	1	٦	۲	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	ሻ	1111	1	ካካ	***		ካካካ		11			
Traffic Volume (veh/h)	25	2043	582	635	1324	0	274	0	455	0	0	
Future Volume (veh/h)	25	2043	582	635	1324	0	274	0	455	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	27	2221	633	690	1439	0	298	298	495			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	44	2482	769	1194	3702	0	500	500	1241			
Arrive On Green	0.02	0.39	0.39	0.35	0.72	0.00	0.10	0.10	0.10			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	27	2221	633	690	1439	0	298	298	495			
Grp Sat Flow(s), veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	1.8	38.9	41.1	19.6	13.0	0.0	6.8	6.8	0.0			
Cycle Q Clear(g_c), s	1.8	38.9	41.1	19.6	13.0	0.0	6.8	6.8	0.0			
Prop In Lane	1.00	0017	1.00	1.00	1010	0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	44	2482	769	1194	3702	0	500	500	1241			
V/C Ratio(X)	0.61	0.89	0.82	0.58	0.39	0.00	0.60	0.60	0.40			
Avail Cap(c_a), veh/h	91	2482	769	1194	3702	0	1134	1134	1594			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.57	0.57	0.57	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	57.9	34.6	26.5	32.1	6.3	0.0	51.7	51.7	22.5			
Incr Delay (d2), s/veh	7.6	3.3	5.8	0.7	0.3	0.0	1.1	1.1	0.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	1.6	18.6	23.2	11.3	6.5	0.0	4.7	4.7	11.3			
Unsig. Movement Delay, s/veh		10.0	23.2	11.5	0.0	0.0	т.7	т.7	11.5			
LnGrp Delay(d),s/veh	65.6	37.8	32.2	32.8	6.6	0.0	52.9	52.9	22.7			
LnGrp LOS	05.0 E	57.0 D	JZ.Z C	52.0 C	A	A	J2.7	J2.7 D	22.7 C			
•	L	2881	C	C	2129	A		793	C			
Approach Vol, veh/h							793					
Approach Delay, s/veh		36.9			15.1		34.0	34.0				
Approach LOS		D			В		С	С				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	7.5	93.7		18.8	48.2	53.0						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	6.1	* 69		27.1	* 27	* 46						
Max Q Clear Time (g_c+I1), s	3.8	15.0		8.8	21.6	43.1						
Green Ext Time (p_c), s	0.0	30.7		3.1	1.4	3.2						
Intersection Summary												
HCM 6th Ctrl Delay			28.5									
HCM 6th LOS			C									
Notoc			0									

#### Notes

User approved ignoring U-Turning movement. \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

01 Ex AM 5:00 pm 07/28/2020 Existing Conditions AM

# HCM 6th Signalized Intersection Summary 4: Beverly Glen BI & Olympic BI

08/10/2020
------------

	۶	-	$\mathbf{F}$	•	-	•	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<b>ተተ</b> ጮ		<u>۲</u>	***	1	<u>۲</u>	- <b>††</b>	1	ሻ	- <b>††</b>	1
Traffic Volume (veh/h)	313	2258	84	38	1619	96	231	813	221	219	366	278
Future Volume (veh/h)	313	2258	84	38	1619	96	231	813	221	219	366	278
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	1070	No	4070	4070	No	4070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	340	2454	91	41	1760	104	251	884	240	238	398	302
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	208	1917	71	179	1880	583	342	1010	538	242	1089	591
Arrive On Green	0.07	0.38	0.38	0.06	0.37	0.37	0.06	0.28	0.28	0.08	0.31	0.31
Sat Flow, veh/h	1781	5055	186	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	340	1647	898	41	1760	104	251	884	240	238	398	302
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.0	34.1	34.1	1.2	29.9	4.0	5.0	21.3	10.6	7.0	7.9	13.3
Cycle Q Clear(g_c), s	6.0	34.1	34.1	1.2	29.9	4.0	5.0	21.3	10.6	7.0	7.9	13.3
Prop In Lane	1.00	1001	0.10	1.00	1000	1.00	1.00	1010	1.00	1.00	1000	1.00
Lane Grp Cap(c), veh/h	208	1291	697	179 0.23	1880	583	342 0.73	1010 0.88	538 0.45	242 0.98	1089	591
V/C Ratio(X)	1.64 208	1.28 1291	1.29 697	0.23	0.94 1880	0.18 583	0.73 342	0.88	0.45 564	0.98 242	0.37 1145	0.51 616
Avail Cap(c_a), veh/h HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	342 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	0.09	0.09	0.09	0.67	0.67	0.67
Uniform Delay (d), s/veh	24.3	27.9	27.9	21.4	27.4	19.2	27.6	30.7	23.1	27.9	24.4	21.9
Incr Delay (d2), s/veh	307.9	130.3	140.6	0.6	10.3	0.7	0.8	0.8	0.1	42.6	0.1	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.1	42.0	0.1	0.0
%ile BackOfQ(85%),veh/ln	28.7	49.6	56.0	0.0	17.2	2.8	3.1	9.9	4.5	6.5	4.8	6.7
Unsig. Movement Delay, s/veh		47.0	50.0	0.7	17.2	2.0	0.1	7.7	4.0	0.0	7.0	0.7
LnGrp Delay(d), s/veh	332.2	158.3	168.5	22.0	37.8	19.9	28.3	31.5	23.2	70.5	24.5	22.3
LnGrp LOS	552.2 F	F	F	C	07.0 D	B	C	C	C	, u.u	C 21.0	C
Approach Vol, veh/h	•	2885	•	<u> </u>	1905	D		1375			938	
Approach Delay, s/veh		182.0			36.5			29.5			35.5	
Approach LOS		F			00.0 D			C			D	
	1		2	4		/	7				D	
Timer - Assigned Phs	10.0	2	3	22.0	5	6	7	20.0				
Phs Duration (G+Y+Rc), s	10.0	38.2 * F 1	9.0	32.8 * E 2	9.0	39.2 * F 1	11.0	30.8				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	6.0	* 32	5.0	* 29	5.0	* 33	7.0	* 27				
Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s	8.0 0.0	31.9 0.0	7.0 0.0	15.3 3.2	3.2 0.0	36.1 0.0	9.0 0.0	23.3 2.2				
4 — 7	0.0	0.0	0.0	J.Z	0.0	0.0	0.0	Ζ.Ζ				
Intersection Summary												
HCM 6th Ctrl Delay			94.1									
HCM 6th LOS			F									

Notes

· ·	۶		+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘካ	<b>^</b>		7	<u>ነ</u> ካ	11
Traffic Volume (veh/h)	631	<b>2</b> 393	<b>1</b> 786	263	80	111
Future Volume (veh/h)	631	2393	1786	263	80	111
Initial Q (Qb), veh	001	0	0	203	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	U	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	686	2601	1941	286	87	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	653	3086	1895	588	960	1302
Arrive On Green	0.38	1.00	0.37	0.37	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	686	2601	1941	286	87	121
Grp Sat Flow(s), veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve( $g_s$ ), s	1720	0.0	33.4	12.5	1.7	2.2
Cycle Q Clear(g_c), s	17.0	0.0	33.4	12.5	1.7	2.2
Prop In Lane	1.00	0.0	55.4	12.5	1.00	1.00
Lane Grp Cap(c), veh/h	653	3086	1895	588	960	1302
V/C Ratio(X)	1.05	0.84	1.02	0.49	0.09	0.09
Avail Cap(c_a), veh/h	653	3086	1895	588	960	1302
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.93	0.93
Uniform Delay (d), s/veh	28.0	0.0	28.3	21.7	24.1	13.4
Incr Delay (d2), s/veh	20.0 49.4	3.0	20.3	21.7	0.2	0.1
Initial Q Delay(d3), s/veh	49.4 0.0	0.0	0.0	0.0	0.2	0.1
%ile BackOfQ(85%),veh/ln	13.1	1.5	22.4	7.3	1.3	3.9
Unsig. Movement Delay, s/veh		1.5	22.4	1.5	1.5	3.7
LnGrp Delay(d),s/veh	77.4	3.0	55.4	24.6	24.3	13.5
LnGrp LOS	77.4 F		55.4 F	24.0 C	24.3 C	13.5 B
	Г	A 7007	г 2227	C		D
Approach Vol, veh/h		3287			208	
Approach Delay, s/veh		18.5	51.4		18.0	
Approach LOS		В	D		В	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	21.0	39.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	17.0	* 33
Max Q Clear Time (g_c+I1), s		2.0		4.2	19.0	35.4
Green Ext Time (p_c), s		40.1		0.7	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			31.3			
HCM 6th LOS			С			

Notes

	≯	-	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲	<b>†</b> ††	<b>≜</b> †⊅		ኘካ	1
Traffic Volume (veh/h)	687	1818	989	336	218	212
Future Volume (veh/h)	687	1818	989	336	218	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	747	1976	1075	365	237	230
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	524	3859	1104	370	460	678
Arrive On Green	0.29	0.76	0.28	0.28	0.13	0.13
Sat Flow, veh/h	1781	5274	2707	876	3456	1585
Grp Volume(v), veh/h	747	1976	726	714	237	230
Grp Sat Flow(s), veh/h/ln	1781	1702	1777	1713	1728	1585
Q Serve(g_s), s	26.5	13.9	36.3	37.3	5.7	8.7
Cycle Q Clear(g_c), s	26.5	13.9	36.3	37.3	5.7	8.7
Prop In Lane	1.00			0.51	1.00	1.00
Lane Grp Cap(c), veh/h	524	3859	750	723	460	678
V/C Ratio(X)	1.42	0.51	0.97	0.99	0.51	0.34
Avail Cap(c_a), veh/h	524	3859	750	723	806	837
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.52	0.52	0.95	0.95
Uniform Delay (d), s/veh	31.8	4.4	31.7	32.0	36.3	17.2
Incr Delay (d2), s/veh	201.8	0.5	17.1	21.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	56.3	5.6	22.9	23.4	4.0	12.1
Unsig. Movement Delay, s/ver		0.0	,	_ 2		
LnGrp Delay(d),s/veh	233.6	4.9	48.8	53.2	37.1	17.5
LnGrp LOS	200.0 F	A	D	D	D	B
Approach Vol, veh/h	· · ·	2723	1440		467	
Approach Delay, s/veh		67.6	51.0		27.5	
Approach LOS		67.0 E	D		27.5 C	
Timer - Assigned Phs	1	2	U	4	U	6
<u>_</u>	20.0			•		-
Phs Duration (G+Y+Rc), s	30.0	43.0 * Г		17.0		73.0
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	26.5	* 29		* 21		* 59
Max Q Clear Time (g_c+I1), s		39.3		10.7		15.9
Green Ext Time (p_c), s	0.0	0.0		1.2		24.5
Intersection Summary						
HCM 6th Ctrl Delay			58.4			
HCM 6th LOS			E			

Notes

# HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

Movement         EBI         EBT         EBT         EBT         WBI         WBI         WBI         NBI         NBR         SBL         SBI         SB		۶	-	$\mathbf{F}$	•	+	•	1	1	1	*	ţ	~
Traffic Volume (vehn)       64       1851       20       14       1335       79       9       2       11       35       1       93         Future Volume (vehn)       64       1851       20       14       1335       79       9       2       11       35       1       93         Future Volume (vehn)       64       1851       20       14       1335       79       9       2       11       35       1       93         Parking Bux, Adj       100       1.01       1.00       1.03       1.03       3.03       3.03       3.03       3.03       3.03 <th>Movement</th> <th></th> <th></th> <th>EBR</th> <th></th> <th></th> <th>WBR</th> <th>NBL</th> <th></th> <th>NBR</th> <th>SBL</th> <th></th> <th>SBR</th>	Movement			EBR			WBR	NBL		NBR	SBL		SBR
		-			-				4			- <del>4</del> >	
Initial (Cb), veh         0	· · · · ·												
Ped-Bike Adj(A, pbT)       1.00 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
Parking Bus, Adj       1.00       1.0			0			0			0			0	
Work Zone On Approach         No         No         No         No         No         No           Adj Sat How, vehvhin         1870         187			1.00			1.00			4.00			1 00	
Adj Sal Flow, veh/h/In       1870       <		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Adj Flow Rale, velvin       70       2012       22       15       1451       86       10       2       12       38       1       101         Peak Hour Factor       0.92 <td></td> <td>1070</td> <td></td> <td>1070</td> <td>1070</td> <td></td> <td>1070</td> <td>1070</td> <td></td> <td>1070</td> <td>1070</td> <td></td> <td>1070</td>		1070		1070	1070		1070	1070		1070	1070		1070
Peak Hour Factor       0.92       0.9													
Percent Heavy Veh, %       2													
Cap, veh/h       267       2881       31       137       1887       111       246       65       254       165       30       374         Arrive On Green       0.55       0.55       0.00       1.00       0.00       0.33													
Arrive On Green       0.55       0.55       1.00       1.00       1.00       0.33													
Sat Flow, veh/h       338       5207       57       208       3410       201       568       194       761       342       91       1121         Grp Volume(v), veh/h       70       1315       719       15       754       783       24       0       0       140       0       0         Grp Sat Flow(s), veh/h/ln       338       1702       1860       208       1777       1834       1523       0       0       1554       0       0         O Serve(g.s), s       10.5       25.3       25.3       28.0       0.													
Grp Volume(v), veh/h       70       1315       719       15       754       783       24       0       0       140       0       0         Grp Volume(v), veh/h/ln       338       1702       1860       208       1777       1834       1523       0       0       1554       0       0         Q Serve(g_s), s       10.5       25.3       25.3       25.1       0.0       0.0       0.0       0.0       0.5       0.0       0.0         Cycle O Clear(g_c), s       10.5       25.3       25.1       0.0       0.0       0.9       0.0       0.5       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.26       0.70       1.00													
Grp Sat Flow(s),veh/h/ln       338       1702       1860       208       1777       1834       1523       0       0       1554       0       0         O Serve(g_s), s       10.5       25.3       25.3       3.8       0.0 </td <td></td>													
Q Serve(g_s), s       10.5       25.3       25.3       3.8       0.0       0.0       0.0       0.0       0.2       0.0       0.0         Cycle O Clear(g_c), s       10.5       25.3       25.3       29.1       0.0       0.	1												
Cycle Q Clear(g_c), s       10.5       25.3       25.3       29.1       0.0       0.0       0.0       5.6       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.26       0.70       0.71       0.77       0.74       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       0.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.26       0.70       0.71       0.77       0.74       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       1.00													
Lane Grp Cap(c), veh/h2671884102913798310155640056900V/C Ratio(X)0.260.700.700.110.770.770.040.000.000.250.000.00Avail Cap(c_a), veh/h2671884102913798310155640056900HCM Platoon Ratio1.001.001.002.002.002.001.001.001.001.001.000.00Upstream Filter(I)0.850.850.850.580.580.581.000.000.000.000.00Uniform Delay (d), s/veh11.314.614.67.40.00.020.30.00.021.80.00.0Incr Delay (d2), s/veh2.01.93.40.93.43.40.10.00.00.00.00.0Incr Delay (d2), s/veh2.01.93.40.93.43.40.10.00.00.00.00.0India D belay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0Unsig. Movement Delay, s/veh1.612.313.80.31.71.70.60.00.22.10.00.0LnGrp Delay(d), s/veh13.416.518.08.43.43.420.40.00.22.10.00			20.0			0.0			0.0			0.0	
V/C Ratio(X)       0.26       0.70       0.71       0.77       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00			1884			983			0			0	
Avail Cap(c_a), veh/h       267       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       1.0													
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	. ,												
Upstream Filter(I)       0.85       0.85       0.85       0.58       0.58       0.58       1.00       0.00       1.00       0.00       0.00         Uniform Delay (d), s/veh       11.3       14.6       14.6       7.4       0.0       0.0       20.3       0.0       0.0       21.8       0.0       0.0         Incr Delay (d2), s/veh       2.0       1.9       3.4       0.9       3.4       3.4       0.1       0.0 <td></td>													
Uniform Delay (d), s/veh11.314.614.67.40.00.020.30.00.021.80.00.0Incr Delay (d2), s/veh2.01.93.40.93.43.40.10.00.00.20.00.0Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln1.612.313.80.31.71.70.60.00.00.00.0Unsig. Movement Delay, s/veh13.416.518.08.43.43.420.40.00.022.10.00.0LnGrp Delay(d), s/veh13.416.518.08.43.43.420.40.00.022.10.00.0LnGrp DelayUse/d1, s/veh11.4155224140Approach Vol, veh/h2104155224140Approach LOSBAACCCTimer - Assigned Phs2468Phs Duration (G+Y+RC), s54.635.454.635.454.6Change Period (Y+Rc), s*4.8*5.4*4.8*5.4Max Green Setting (Gmax), s*50*30*50*30Max Q Clear Time (g_c+H1), s31.17.627.32.9Green Ext Time (p_c), s14.90.820.80.1Intersection Summary11.611.611.6<													
Incr Delay (d2), s/veh       2.0       1.9       3.4       0.9       3.4       3.4       0.1       0.0       0.0       0.0       0.0         Initial Q Delay(d3),s/veh       0.0 <t< td=""><td></td><td></td><td>14.6</td><td>14.6</td><td>7.4</td><td></td><td>0.0</td><td></td><td></td><td></td><td>21.8</td><td>0.0</td><td></td></t<>			14.6	14.6	7.4		0.0				21.8	0.0	
%ile BackOfQ(85%),veh/ln       1.6       12.3       13.8       0.3       1.7       1.7       0.6       0.0       0.0       3.7       0.0       0.0         Unsig. Movement Delay, s/veh       13.4       16.5       18.0       8.4       3.4       3.4       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp Delay(d),s/veh       13.4       16.5       18.0       8.4       3.4       3.4       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp LOS       B       B       A       A       A       C       A       A       C       A       A         Approach Vol, veh/h       2104       1552       24       140       40	Incr Delay (d2), s/veh	2.0	1.9	3.4	0.9	3.4	3.4	0.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       13.4       16.5       18.0       8.4       3.4       3.4       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp LOS       B       B       B       A       A       C       A       A       C       A       A         Approach Vol, veh/h       2104       1552       24       140         Approach Delay, s/veh       16.9       3.4       20.4       22.1         Approach LOS       B       A       A       C       C       C         Timer - Assigned Phs       2       4       6       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
LnGrp Delay(d),s/veh       13.4       16.5       18.0       8.4       3.4       3.4       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp LOS       B       B       B       A       A       C       A       A       C       A       A         Approach Vol, veh/h       2104       1552       24       140         Approach Delay, s/veh       16.9       3.4       20.4       22.1         Approach LOS       B       A       A       C       C       C         Timer - Assigned Phs       2       4       6       8	%ile BackOfQ(85%),veh/In	1.6	12.3	13.8	0.3	1.7	1.7	0.6	0.0	0.0	3.7	0.0	0.0
LnGrp LOS         B         B         B         A         A         A         C         A         A         C         A         C         A         A         C         A         C         A         A         C         A         C         A         A         C         A         C         A         A         C         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         A         C         A         A         A         D <thd< th=""> <thd< th=""> <thd< t<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thd<></thd<></thd<>													
Approach Vol, veh/h         2104         1552         24         140           Approach Delay, s/veh         16.9         3.4         20.4         22.1           Approach LOS         B         A         C         C           Timer - Assigned Phs         2         4         6         8           Phs Duration (G+Y+Rc), s         54.6         35.4         54.6         35.4           Change Period (Y+Rc), s         * 4.8         * 5.4         * 4.8         * 5.4           Max Green Setting (Gmax), s         * 50         * 30         * 50         * 30           Max Q Clear Time (g_c+I1), s         31.1         7.6         27.3         2.9           Green Ext Time (p_c), s         14.9         0.8         20.8         0.1           Intersection Summary         11.6         11.6         11.6         11.6													0.0
Approach Delay, s/veh       16.9       3.4       20.4       22.1         Approach LOS       B       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.6       11.6	•	В		В	A		A	С		А	С		<u>A</u>
Approach LOS       B       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.6       11.6       11.6													
Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.6       11.6       11.6			16.9			3.4			20.4				
Phs Duration (G+Y+Rc), s         54.6         35.4         54.6         35.4           Change Period (Y+Rc), s         * 4.8         * 5.4         * 4.8         * 5.4           Max Green Setting (Gmax), s         * 50         * 30         * 50         * 30           Max Q Clear Time (g_c+I1), s         31.1         7.6         27.3         2.9           Green Ext Time (p_c), s         14.9         0.8         20.8         0.1           Intersection Summary         11.6         11.6         11.6	Approach LOS		В			А			С			С	
Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+l1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.6       11.6       11.6	Timer - Assigned Phs		2		4		6		8				
Max Green Setting (Gmax), s         * 50         * 30         * 50         * 30           Max Q Clear Time (g_c+l1), s         31.1         7.6         27.3         2.9           Green Ext Time (p_c), s         14.9         0.8         20.8         0.1           Intersection Summary         11.6         11.6         11.6	Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Max Q Clear Time (g_c+l1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.6       11.6       11.6	Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Green Ext Time (p_c), s         14.9         0.8         20.8         0.1           Intersection Summary         HCM 6th Ctrl Delay         11.6         11.6	Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Intersection Summary HCM 6th Ctrl Delay 11.6													
HCM 6th Ctrl Delay 11.6	Green Ext Time (p_c), s		14.9		0.8		20.8		0.1				
<b>,</b>	· · · · · · · · · · · · · · · · · · ·												
HCM 6th LOS B													
	HCM 6th LOS			В									

Notes

# HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{r}$	1	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		ሻ	<u>ተተ</u> ኑ		٦.		77	ሻ		1
Traffic Volume (veh/h)	306	1425	145	229	1006	340	248	0	1127	33	0	41
Future Volume (veh/h)	306	1425	145	229	1006	340	248	0	1127	33	0	41
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	333	1549	158	249	1093	370	270	0	1225	36	0	45
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	0	2	2	0	2
Cap, veh/h	367	2528	258	291	1861	630	277	0	0	277	0	0
Arrive On Green	0.27	0.71	0.71	0.16	0.49	0.49	0.16	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1781	4708	480	1781	3769	1276	1781	270		1781	36	
Grp Volume(v), veh/h	333	1120	587	249	987	476	270	84.7		36	33.0	
Grp Sat Flow(s),veh/h/ln	1781	1702	1784	1781	1702	1641	1781	F		1781	С	
Q Serve(g_s), s	16.3	15.0	15.1	12.2	18.6	18.6	13.6			1.6		
Cycle Q Clear(g_c), s	16.3	15.0	15.1	12.2	18.6	18.6	13.6			1.6		
Prop In Lane	1.00	1000	0.27	1.00	1 ( 0 1	0.78	1.00			1.00		
Lane Grp Cap(c), veh/h	367	1828	958	291	1681	810	277			277		
V/C Ratio(X)	0.91	0.61	0.61	0.86	0.59	0.59	0.97			0.13		
Avail Cap(c_a), veh/h	416	1828	958	455	1681	810	277			277		
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.8	8.1	8.1	36.6	16.2	16.2	37.8			32.8		
Incr Delay (d2), s/veh	15.0	1.0	1.8	9.4	1.5	3.1	46.8			0.2		
Initial Q Delay(d3),s/veh	0.0 10.2	0.0 5.6	0.0 6.2	0.0 8.5	0.0 9.9	0.0 10.0	0.0 12.6			0.0 1.2		
%ile BackOfQ(85%),veh/In		0.C	0.2	0.0	9.9	10.0	12.0			I.Z		
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	46.8	9.1	9.9	46.0	17.7	19.3	84.7			33.0		
LINGIP Delay(u), siven	40.8 D	9.1 A	9.9 A	40.0 D	B	19.3 B	04.7 F			55.0 C		
Approach Vol, veh/h	D	2040	A	D	1712	D	I			C		
Approach Delay, s/veh		2040 15.5			22.3							
Approach LOS		15.5 B			22.3 C							
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	22.6	49.4	18.0		18.7	53.3	18.0					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	21.0	* 33	14.0		23.0	* 31	5.0					
Max Q Clear Time (g_c+l1), s	18.3	20.6	15.6		14.2	17.1	3.6					
Green Ext Time (p_c), s	0.3	7.8	0.0		0.5	9.5	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			С									

Notes

#### Intersection Int Delay, s/veh 6.3 Movement EBL EBT EBR WBT WBR NBL NBT NBR SBL SBT SBR WBL **₽ ♣** 0 ካ ተተጮ Lane Configurations ካ ተተጮ 1859 Traffic Vol, veh/h 53 1790 15 9 45 13 21 18 4 Future Vol, veh/h 53 1790 13 21 1859 18 4 1 15 9 0 45 Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 Sign Control Stop Stop Stop Stop Free Free Free Free Free Free Stop Stop RT Channelized -None -None None None --\_ -\_ -Storage Length 49 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 58 1946 14 23 2021 20 4 1 16 10 0 49

Major/Minor	Major1		Ν	/lajor2		1	Ainor1		1	Ainor2				
Conflicting Flow All	2041	0	0	1960	0	0	2923	4156	980	2972	4153	1021		
Stage 1	-	-	-	-	-	-	2069	2069	-	2077	2077	-		
Stage 2	-	-	-	-	-	-	854	2087	-	895	2076	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	119	-	-	131	-	-	16	2	214	15	2	201		
Stage 1	-	-	-	-	-	-	34	95	-	34	94	-		
Stage 2	-	-	-	-	-	-	290	93	-	273	94	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	119	-	-	131	-	-	7	~ 1	214	-	1	201		
Mov Cap-2 Maneuver	-	-	-	-	-	-	7	~ 1	-	-	1	-		
Stage 1	-	-	-	-	-	-	17	49	-	17	77	-		
Stage 2	-	-	-	-	-	-	181	77	-	126	48	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	1.7			0.4		\$ ´	014.8							
HCM LOS							F			-				
Minor Lane/Major Mvm	nt NBL	_n1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		12	119	-	-	131	-	-	-					
HCM Lane V/C Ratio	1.8		0.484	-	-	0.174	-	-	-					
HCM Control Delay (s)	\$ 101	4.8	60.8	-	-	38.2	-	-	-					
HCM Lane LOS		F	F	-	-	E	-	-	-					
HCM 95th %tile Q(veh	)	3.5	2.2	-	-	0.6	-	-	-					
Notes														
~: Volume exceeds ca	nacity \$	S: De	elay exc	eeds 30	005	+. Com	nutation	n Not De	ofined	*· ∆II	maior	volume ir	n platoon	
	pucity 4	. DC		0003 30	103	1.0011	patatio		Shineu	. 711	major v		platoon	

Intersection							
Int Delay, s/veh	0.3						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	l
Lane Configurations	朴朴			<b>*††</b>	۰¥		
Traffic Vol, veh/h	1784	4	6	1930	8	12	!
Future Vol, veh/h	1784	4	6	1930	8	12	)
Conflicting Peds, #/hr	0	0	0	0	0	0	J
Sign Control	Free	Free	Free	Free	Stop	Stop	)
RT Channelized	-	None	-	None	-	None	÷
Storage Length	-	-	86	-	0	-	
Veh in Median Storage	e, # 0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	ļ
Heavy Vehicles, %	2	2	2	2	2	2	,
Mvmt Flow	1939	4	7	2098	9	13	}

Major/Minor	Major1	Ма	jor2		Minor1	
Conflicting Flow All	0	0 1	943	0	2794	972
Stage 1	-	-	-	-	1941	-
Stage 2	-	-	-	-	853	-
Critical Hdwy	-	- {	5.34	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	0.01	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-		3.12	-	3.82	3.92
Pot Cap-1 Maneuver	· -	-	134	-	34	217
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	342	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuve		-	134	-	32	217
Mov Cap-2 Maneuve	er -	-	-	-	54	-
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	324	-
Approach	EB		WB		NB	
HCM Control Delay,			0.1		51.9	
HCM LOS	5 0		0.1		51.7 F	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	98	-	-	134	-
HCM Lane V/C Ratio	0.222	-	-	0.049	-
HCM Control Delay (s)	51.9	-	-	33.2	-
HCM Lane LOS	F	-	-	D	-
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

#### Intersection

Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	0	20	0	0	20
Future Vol, veh/h	0	0	20	0	0	20
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	0	0	22	0	0	22

Major/Minor	Minor1	Ν	/lajor1	Ν	/lajor2	
Conflicting Flow All	44	22	0	0	22	0
Stage 1	22	-	-	-	-	-
Stage 2	22	-	-	-	-	-
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	967	1055	-	-	1593	-
Stage 1	1001	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver		1055	-	-	1593	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWI	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1593	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	Α	Α	-
HCM 95th %tile Q(veh)	-	-	-	0	-

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020
------------

Movement         FBI         EBR         WBI         WBI         WBR         NBI         NBT         NBR         SBI         SB		۶	-	$\mathbf{r}$	4	+	•	1	1	1	1	ţ	~
Traffic Volume (veh/n)       189       1574       0       274       1780       508       113       662       143       315       978       53         Future Volume (veh/n)       189       1574       0       274       1780       508       113       662       143       315       978       53         Future Volume (veh/n)       1.00	Movement			EBR									SBR
Future Volume (veh/h)       189       1574       0       274       1780       508       113       662       143       315       978       53         initial Q (Qb), veh       0       <													
Initial Q (Qb), veh       0													
Ped-Bike Adj(A, pbT)       1.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Parking Bus, Adj       1.00       1.0			0			0			0			0	
Work Zone On Åpproach         No         No         No         No         No           Adj Sat Flow, veh/hiln         1870         1373         1726         552         123         720         155         342         103         512 </td <td></td>													
Adj Sat Flow, veh/h1n       1870 <t< td=""><td></td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td></t<>		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Acji Flow Rate, veh/h       205       1711       0       298       1935       552       123       720       155       342       1063       58         Peak Hour Factor       0.92 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Pack Hour Factor       0.92 <th0.92< th="">       0.92       0.93</th0.92<>													
Percent Heavy Veh, %       2													
Cap, veh/h       173       1745       0       288       1915       740       173       1128       503       317       1276       569         Arrive On Green       0.05       0.34       0.00       0.11       0.50       0.50       0.05       0.32       0.32       0.09       0.36       0.36         Sat Flow, veh/h       3456       5574       0       3456       5106       1585       3456       3554       1585       3456       3554       1585       342       1063       58         Gry Nolume(V), veh/h       205       1711       0       298       100       450       33.3       4.2       20.8       8.9       11.0       32.8       2.9         Ocycle Q Cleard(g_c), s       6.0       39.8       0.0       10.0       45.0       33.3       4.2       20.8       8.9       11.0       32.8       2.9         Prop In Lane       1.00       0.00       1.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Arrive On Green       0.05       0.34       0.00       0.11       0.50       0.50       0.05       0.32       0.32       0.09       0.36       0.36         Sat Flow, veh/h       3456       5274       0       3456       5106       1585       3456       3554       1585       3426       354       1585       342       1063       58         Grp Volume(v), veh/h       205       1711       0       298       1935       552       123       720       155       342       1063       58         Grp Sat Flow(s), veh/h/ln       172       178       1777       1585       1728       1777       1585       322       2.9         Cycle O Clear(g_, c), s       6.0       39.8       0.0       10.0       45.0       33.3       4.2       20.8       8.9       11.0       32.8       2.9       Prop In Lane       1.00       1													
Sat Flow, veh/h       3456       5274       0       3456       5106       1585       3456       3554       1585       3456       3554       1585         Grp Volume(v), veh/h       205       1711       0       298       1935       552       1723       720       155       342       1063       588         Grp Sat Flow(s), veh/h/ln       1728       1702       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1772       1585       1728       1771       1585       1728       1772       1585       1728       1771       1585       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       1585       1728       1771       101       288       1915       740       173       1128       503       317       1276       569         HCM Platoon Ratio       1.00       1.00       1.00       1.00       <													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
Grp Sat Flow(s),veh/h/ln172817020172817021585172817771585172817771585Q Serve(g_s), s6.039.80.010.045.033.34.220.88.911.032.82.9Cycle Q Clear(g_c), s6.039.80.010.045.033.34.220.88.911.032.82.9Prop In Lane1000.001.001.001.001.001.001.001.00Lane Grp Cap(c), veh/h17317450288191574017311285033171276569V/C Ratio(X)1.190.980.001.031.010.750.710.640.311.080.830.10Avail Cap(c_a), veh/h17317450288191574017311285033171276569V/C Ratio(X)1.190.980.001.031.010.750.710.640.311.001.001.00Log Ratio(X)1.001.001.031.331.331.001.001.001.001.00Upstram Filter(I)1.001.000.730.730.730.670.671.001.001.00Uniform Delay (d), siveh57.039.10.054.620.25.07.71.91.173.46.50.4Intitial Q Delay(d), siveh184.556.6 </td <td></td>													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
$\begin{array}{c c c c c c c c c c c c c c c c c c c $													
Prop In Lane       1.00       0.00       1.01       0.73       173       1128       503       317       1276       569         HCM Platon Ratio       1.00													
Lane Grp Cap(c), veh/h17317450288191574017311285033171276569V/C Ratio(X)1.190.980.001.031.010.750.710.640.311.080.830.10Avail Cap(c_a), veh/h17317450288191574017311285033171276569HCM Platoon Ratio1.001.001.001.031.331.331.331.001.001.001.001.00Upstream Filter(I)1.001.000.000.730.730.670.671.001.001.00Uniform Delay (d), s/veh57.039.10.053.430.120.856.135.031.054.535.225.6Incr Delay (d2), s/veh127.517.40.054.620.25.07.71.91.173.46.50.4Initial O Delay (d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0Weile BackOfQ (85%), veh/ln8.623.70.08.724.114.83.211.85.211.319.22.1Unsig. Movement Delay (d3), s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9InGrp LOSFEAFFCEDCFD <td></td> <td></td> <td>39.8</td> <td></td> <td></td> <td>45.0</td> <td></td> <td></td> <td>20.8</td> <td></td> <td></td> <td>32.8</td> <td></td>			39.8			45.0			20.8			32.8	
V/C Ratio (X)1.190.980.001.031.010.750.710.640.311.080.830.10Avail Cap(c_a), veh/h17317450288191574017311285033171276569HCM Platoon Ratio1.001.001.001.331.331.331.001.001.001.001.001.001.00Upstream Filter(I)1.001.000.000.730.730.670.670.671.001.001.00Uniform Delay (d), s/veh57.039.10.053.430.120.856.135.031.054.535.225.6Inct Delay (d2), s/veh127.517.40.054.620.25.07.71.91.173.46.50.4Initial O Delay (d3), s/veh0.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), weh/ln8.623.70.08.724.114.83.211.85.211.319.22.1Unsig. Movement Delay, s/vehIncreaseIncreaseIncreaseIncreaseIncreaseIncreaseIncreaseIncreaseIncreaseLnGrp Delay(d), s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9LnGrp Delay, s/veh70.251.639.561.239.561.2Approach Delay,			1745			1015			1100			107/	
Avail Cap(c_a), veh/h       173       1745       0       288       1915       740       173       1128       503       317       1276       569         HCM Platoon Ratio       1.00       1.00       1.00       1.33       1.33       1.33       1.00													
$\begin{array}{c c c c c c c c c c c c c c c c c c c $													
Upstream Filter(I)1.001.000.000.730.730.730.670.671.001.001.001.00Uniform Delay (d), s/veh57.039.10.053.430.120.856.135.031.054.535.225.6Incr Delay (d2), s/veh127.517.40.054.620.25.07.71.91.173.46.50.4Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln8.623.70.08.724.114.83.211.85.211.319.22.1Unsig. Movement Delay, s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9InGrp DOSFEAFFCEDCFDCApproach Vol, veh/h191627859981463Approach LOSEDDEEETimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s10.050.510.049.514.046.515.044.5Change Period (Y+Rc), s4.0*5.54.06.44.0*5.54.06.4Max Green Setting (Gmax), s6.0*456.043.110.0*4111.038.1Max													
Uniform Delay (d), s/veh57.039.10.053.430.120.856.135.031.054.535.225.6Incr Delay (d2), s/veh127.517.40.054.620.25.07.71.91.173.46.50.4Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln8.623.70.08.724.114.83.211.85.211.319.22.1Unsig. Movement Delay, s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9LnGrp Delay(d), s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9LnGrp LOSFEAFFCEDCFDCApproach Vol, veh/h191627859981463Approach LOSEDDEDEETimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s10.050.510.049.514.046.515.044.5Change Period (Y+Rc), s4.0*5.54.06.44.0*5.54.06.4Max Green Setting (Gmax), s6.0*456.043.110.0*41													
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$													
Initial Q Delay(d3),s/veh       0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
%ile BackOfQ(85%), veh/ln       8.6       23.7       0.0       8.7       24.1       14.8       3.2       11.8       5.2       11.3       19.2       2.1         Unsig. Movement Delay, s/veh       184.5       56.6       0.0       107.9       50.3       25.8       63.8       36.9       32.0       127.9       41.6       25.9         InGrp Delay(d), s/veh       184.5       56.6       0.0       107.9       50.3       25.8       63.8       36.9       32.0       127.9       41.6       25.9         InGrp LOS       F       E       A       F       F       C       E       D       C       F       D       C         Approach Vol, veh/h       1916       2785       998       1463       463       4proach LOS       61.2       4proach LOS       61.2       Approach LOS       E       D       D       E       E       E       D       E </td <td></td>													
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       184.5       56.6       0.0       107.9       50.3       25.8       63.8       36.9       32.0       127.9       41.6       25.9         LnGrp LOS       F       E       A       F       F       C       E       D       C       F       D       C         Approach Vol, veh/h       1916       2785       998       1463         Approach Delay, s/veh       70.2       51.6       39.5       61.2         Approach LOS       E       D       D       E       E         Timer - Assigned Phs       1       2       3       4       5       6       7       8       E       D       E													
LnGrp Delay(d),s/veh184.556.60.0107.950.325.863.836.932.0127.941.625.9LnGrp LOSFEAFFCEDCFDCApproach Vol, veh/h191627859981463Approach Delay, s/veh70.251.639.561.2Approach LOSEDDETimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s10.050.510.049.514.046.515.044.5Change Period (Y+Rc), s4.0*5.54.06.44.0*5.54.06.4Max Green Setting (Gmax), s6.0*456.043.110.0*4111.038.1Max Q Clear Time (g_c+I1), s8.047.06.234.812.041.813.022.8Green Ext Time (p_c), s0.00.06.00.00.07.6Intersection SummaryHCM 6th Ctrl Delay56.9			20.7	0.0	0.7	27.1	14.0	0.2	11.0	0.2	11.5	17.2	2.1
LnGrp LOS         F         E         A         F         F         C         E         D         C         F         D         C           Approach Vol, veh/h         1916         2785         998         1463           Approach Delay, s/veh         70.2         51.6         39.5         61.2           Approach LOS         E         D         D         E           Timer - Assigned Phs         1         2         3         4         5         6         7         8           Phs Duration (G+Y+Rc), s         10.0         50.5         10.0         49.5         14.0         46.5         15.0         44.5           Change Period (Y+Rc), s         4.0         *5.5         4.0         6.4         4.0         *5.5         4.0         6.4           Max Green Setting (Gmax), s         6.0         *43.1         10.0         *41         11.0         38.1           Max Q Clear Time (g_c+I1), s         8.0         47.0         6.2         34.8         12.0         41.8         13.0         22.8           Green Ext Time (p_c), s         0.0         0.0         0.0         0.0         7.6         1           Intersection Summary         56.			56.6	0.0	107 9	50.3	25.8	63.8	36.9	32.0	127 9	41.6	25.9
Approach Vol, veh/h191627859981463Approach Delay, s/veh $70.2$ $51.6$ $39.5$ $61.2$ Approach LOSEDDETimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s10.0 $50.5$ 10.0 $49.5$ 14.0 $46.5$ 15.044.5Change Period (Y+Rc), s4.0* 5.54.06.44.0* 5.54.06.4Max Green Setting (Gmax), s $6.0$ * 45 $6.0$ 43.110.0* 4111.038.1Max Q Clear Time (g_c+11), s $8.0$ $47.0$ $6.2$ $34.8$ 12.0 $41.8$ 13.022.8Green Ext Time (p_c), s $0.0$ $0.0$ $6.0$ $0.0$ $0.0$ $7.6$ Intersection SummaryHCM 6th Ctrl Delay $56.9$ $56.9$ $56.9$ $51.6$ $51.6$ $51.6$ $51.6$													
Approach Delay, s/veh       70.2       51.6       39.5       61.2         Approach LOS       E       D       D       E         Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       10.0       50.5       10.0       49.5       14.0       46.5       15.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+I1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       0.0       0.0       0.0       0.0       7.6         Intersection Summary       HCM 6th Ctrl Delay       56.9       56.9       56.9				7.	•		<u> </u>	<u> </u>		<u> </u>	•		
Approach LOS       E       D       D       E         Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       10.0       50.5       10.0       49.5       14.0       46.5       15.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+I1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary       HCM 6th Ctrl Delay       56.9       56.9       56.9       56.9													
Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       10.0       50.5       10.0       49.5       14.0       46.5       15.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+I1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary       56.9       56.9       56.9       56.9       56.9       56.9       56.9													
Phs Duration (G+Y+Rc), s       10.0       50.5       10.0       49.5       14.0       46.5       15.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+I1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary       56.9       56.9       56.9       56.9       56.9       56.9		1		n	4		/	7				-	
Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+I1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary       HCM 6th Ctrl Delay       56.9       56.9       56.9       56.9	V	10.0						15.0					
Max Green Setting (Gmax), s       6.0       * 45       6.0       43.1       10.0       * 41       11.0       38.1         Max Q Clear Time (g_c+l1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary         56.9	· · · · · · · · · · · · · · · · · · ·												
Max Q Clear Time (g_c+l1), s       8.0       47.0       6.2       34.8       12.0       41.8       13.0       22.8         Green Ext Time (p_c), s       0.0       0.0       6.0       0.0       0.0       7.6         Intersection Summary       FCM 6th Ctrl Delay       56.9													
Green Ext Time (p_c), s         0.0         0.0         6.0         0.0         0.0         7.6           Intersection Summary													
Intersection Summary HCM 6th Ctrl Delay 56.9													
HCM 6th Ctrl Delay 56.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0				
HCM 6th LOS E													
	HUM 6th LUS			E									

Notes

	-	$\mathbf{r}$	∢	-	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>^</b>	ኘካ	11
Traffic Volume (veh/h)	1725	373	154	1866	580	292
Future Volume (veh/h)	1725	373	154	1866	580	292
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	-	1.00	1.00	-	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1875	405	167	2028	630	317
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2587	1240	282	3225	953	769
Arrive On Green	0.51	0.51	0.08	0.63	0.28	0.28
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
						317
Grp Volume(v), veh/h	1875	405	167	2028	630	
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1395
Q Serve(g_s), s	34.4	9.0	5.6	29.1	19.4	11.1
Cycle Q Clear(g_c), s	34.4	9.0	5.6	29.1	19.4	11.1
Prop In Lane	0507	1.00	1.00	0005	1.00	1.00
Lane Grp Cap(c), veh/h	2587	1240	282	3225	953	769
V/C Ratio(X)	0.72	0.33	0.59	0.63	0.66	0.41
Avail Cap(c_a), veh/h	2587	1240	317	3225	953	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.68	0.68	0.79	0.79
Uniform Delay (d), s/veh	23.1	3.8	53.2	13.5	38.5	35.5
Incr Delay (d2), s/veh	0.4	0.1	0.8	0.6	2.9	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	15.2	8.7	3.8	13.5	11.3	12.1
Unsig. Movement Delay, s/vel	h					
LnGrp Delay(d),s/veh	23.5	4.0	54.0	14.1	41.3	36.8
LnGrp LOS	С	А	D	В	D	D
Approach Vol, veh/h	2280		_	2195	947	
Approach Delay, s/veh	20.0			17.2	39.8	
Approach LOS	20.0 B			В	57.0 D	
	D					
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		81.0		39.0	15.0	66.0
Change Period (Y+Rc), s		* 5.2		5.9	* 5.2	* 5.2
Max Green Setting (Gmax), s		* 76		33.1	* 11	* 61
Max Q Clear Time (g_c+I1), s		31.1		21.4	7.6	36.4
Green Ext Time (p_c), s		29.8		4.2	0.0	20.0
Intersection Summary						
HCM 6th Ctrl Delay			22.3			
HCM 6th LOS			22.3 C			
			C			

Notes

## HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	•	-	*	1	٦	1	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	ሻ	1111	1	ሻሻ	ተተተ		ሻሻሻ		77			
Traffic Volume (veh/h)	84	1570	418	341	1738	0	645	0	704	0	0	
Future Volume (veh/h)	84	1570	418	341	1738	0	645	0	704	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	91	1707	454	371	1889	0	701	701	765			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	115	2751	978	739	3039	0	952	952	1125			
Arrive On Green	0.06	0.43	0.43	0.21	0.60	0.00	0.19	0.19	0.19			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	91	1707	454	371	1889	0	701	701	765			
Grp Sat Flow(s), veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	6.0	24.8	18.4	11.3	28.5	0.0	15.8	15.8	1.4			
Cycle Q Clear(g_c), s	6.0	24.8	18.4	11.3	28.5	0.0	15.8	15.8	1.4			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	115	2751	978	739	3039	0	952	952	1125			
V/C Ratio(X)	0.79	0.62	0.46	0.50	0.62	0.00	0.74	0.74	0.68			
Avail Cap(c_a), veh/h	200	2751	978	739	3039	0	1218	1218	1273			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	55.3	26.8	12.3	41.6	15.6	0.0	45.8	45.8	29.4			
Incr Delay (d2), s/veh	8.2	0.7	1.1	0.5	1.0	0.0	1.7	1.7	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/In	4.5	12.2	13.4	7.2	14.3	0.0	9.4	9.4	17.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	27.5	13.4	42.1	16.6	0.0	47.5	47.5	30.7			
LnGrp LOS	E	С	В	D	В	A	D	D	С			
Approach Vol, veh/h		2252			2260		1466	1466				
Approach Delay, s/veh		26.1			20.8		38.7	38.7				
Approach LOS		С			C		D	D				
	1			Λ		4	_					
Timer - Assigned Phs	1	2		20.7	5	6						
Phs Duration (G+Y+Rc), s	12.2	78.1		29.7	32.3	58.0 * ( 7						
Change Period (Y+Rc), s	4.5	* 6.7 * F0		6.9	* 6.7	* 6.7 * E1						
Max Green Setting (Gmax), s	13.5	* 59		29.1	* 20	* 51						
Max Q Clear Time (g_c+I1), s	8.0	30.5		17.8	13.3	26.8						
Green Ext Time (p_c), s	0.1	24.8		5.0	0.8	22.0						
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			С									
Notos												

#### Notes

User approved ignoring U-Turning movement. \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 6th Signalized Intersection Summary 4: Beverly Glen BI & Olympic BI

	۶	-	7	4	+	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u> ተተ</u> ጮ		<u>۲</u>	411176		<u> </u>	<b>††</b>	1	- ሽ	- <b>†</b> †	1
Traffic Volume (veh/h)	205	1531	128	175	2184	88	178	625	89	281	771	192
Future Volume (veh/h)	205	1531	128	175	2184	88	178	625	89	281	771	192
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	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	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1870 223	1870 1664	1870 139	1870 190	1870 2374	1870 96	1870 193	1870 679	1870 97	1870 305	1870 838	1870 209
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	90 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	0.72	0.72
Cap, veh/h	185	1877	157	216	2569	104	213	968	538	269	1008	538
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.06	0.27	0.27	0.07	0.28	0.28
Sat Flow, veh/h	1781	4802	401	1781	6391	258	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	223	1179	624	190	1792	678	193	679	97	305	838	209
Grp Sat Flow(s), veh/h/ln	1781	1702	1798	1781	1609	1824	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	29.0	29.1	5.8	31.8	31.9	5.0	15.5	3.9	6.0	19.9	9.0
Cycle Q Clear(g_c), s	5.0	29.0	29.1	5.8	31.8	31.9	5.0	15.5	3.9	6.0	19.9	9.0
Prop In Lane	1.00		0.22	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	1331	703	216	1940	733	213	968	538	269	1008	538
V/C Ratio(X)	1.20	0.89	0.89	0.88	0.92	0.93	0.91	0.70	0.18	1.14	0.83	0.39
Avail Cap(c_a), veh/h	185	1331	703	216	1940	733	213	1106	599	269	1145	5 <b>99</b>
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	0.19	0.19	0.19	0.35	0.35	0.35
Uniform Delay (d), s/veh	24.8	25.5	25.6	21.4	25.6	25.6	30.7	29.4	20.9	31.7	30.2	22.6
Incr Delay (d2), s/veh	131.2	9.0	15.5	31.1	8.9	19.3	10.7	0.3	0.0	76.5	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln Unsig. Movement Delay, s/veh	12.8	16.5	18.8	6.2	16.8	21.3	3.1	7.6	1.9	11.0	10.3	4.4
LnGrp Delay(d), s/veh	156.0	34.5	41.1	52.5	34.5	44.9	41.4	29.8	21.0	108.1	32.0	22.8
LIGIP LOS	F	04.0 C	41.1 D	J2.J D	С С	44.7 D	41.4 D	27.0 C	21.0 C	F	52.0 C	22.0 C
Approach Vol, veh/h		2026	D	D	2660	D	D	969	0		1352	
Approach Delay, s/veh		49.9			38.4			31.2			47.7	
Approach LOS		D			D			C			D	
	1		ე	Λ		4	7					
Timer - Assigned Phs Phs Duration (G+Y+Rc), s	9.0	2 41.3	<u> </u>	4 30.7	5 10.0	40.3	10.0	8 29.7				
Change Period (Y+Rc), s	9.0 4.0	* 5.1	9.0 4.0	* 5.2	4.0	40.3 * 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	5.0	* 33	5.0	* 29	6.0	* 32	6.0	* 28				
Max Q Clear Time ( $g_c+11$ ), s	7.0	33.9	7.0	21.9	7.8	31.1	8.0	17.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.0	0.5	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay			42.6									
HCM 6th LOS			D									

Notes

	≯	-	-	•	1	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ካካ			1	<u>ነ</u> ካ	77
Traffic Volume (veh/h)	214	1658	2050	179	239	335
Future Volume (veh/h)	214	1658	2050	179	239	335
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	U	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1802	2228	195	260	364
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	269	3086	2462	764	960	992
Arrive On Green	0.16	1.00	0.48	0.48	0.28	0.28
	3456	5274	0.48 5274	1585		2790
Sat Flow, veh/h					3456	
Grp Volume(v), veh/h	233	1802	2228	195	260	364
Grp Sat Flow(s),veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve(g_s), s	5.9	0.0	36.1	6.5	5.3	8.7
Cycle Q Clear(g_c), s	5.9	0.0	36.1	6.5	5.3	8.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	269	3086	2462	764	960	992
V/C Ratio(X)	0.87	0.58	0.90	0.26	0.27	0.37
Avail Cap(c_a), veh/h	269	3086	2462	764	960	992
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	37.5	0.0	21.4	13.8	25.4	21.5
Incr Delay (d2), s/veh	24.5	0.8	6.1	0.8	0.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.1	0.4	18.6	4.0	3.7	10.4
Unsig. Movement Delay, s/veh		5			2	
LnGrp Delay(d),s/veh	62.0	0.8	27.5	14.6	26.0	22.5
LnGrp LOS	62.0 E	A	27.5 C	B	20.0 C	22.0 C
Approach Vol, veh/h	<u> </u>	2035	2423		624	0
Approach Delay, s/veh		7.8	2425		24.0	
Approach LOS		A	С		С	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	11.0	49.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	7.0	* 43
Max Q Clear Time (g_c+I1), s		2.0		10.7	7.9	38.1
Green Ext Time (p_c), s		23.2		2.2	0.0	4.9
Intersection Summary						
HCM 6th Ctrl Delay			18.7			
HCM 6th LOS			B			
			0			

#### Notes

	≯	-	+	×	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	1	<b>^</b>	<u>ተተ</u> ኑ		ካካ	1
Traffic Volume (veh/h)	522	1015	1553	255	358	423
Future Volume (veh/h)	522	1015	1553	255	358	423
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	567	1103	1688	277	389	460
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	485	3369	1542	251	792	795
Arrive On Green	0.27	0.66	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	5274	4592	721	3456	1585
Grp Volume(v), veh/h	567	1103	1297	668	389	460
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1741	1728	1585
Q Serve(g_s), s	24.5	8.4	31.4	31.4	8.8	18.3
Cycle Q Clear(g_c), s	24.5	8.4	31.4	31.4	8.8	18.3
Prop In Lane	1.00			0.41	1.00	1.00
Lane Grp Cap(c), veh/h	485	3369	1187	607	792	795
V/C Ratio(X)	1.17	0.33	1.09	1.10	0.49	0.58
Avail Cap(c_a), veh/h	485	3369	1187	607	806	801
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.64	0.50	0.50
Uniform Delay (d), s/veh	32.8	6.6	34.5	34.5	30.1	15.8
Incr Delay (d2), s/veh	96.4	0.3	51.0	61.1	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	30.8	4.4	27.2	29.9	5.0	20.4
Unsig. Movement Delay, s/veh	1					
LnGrp Delay(d),s/veh	129.2	6.9	85.5	95.6	30.4	16.3
LnGrp LOS	F	А	F	F	С	В
Approach Vol, veh/h		1670	1965		849	
Approach Delay, s/veh		48.4	88.9		22.7	
Approach LOS		D	F		С	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	28.0	36.4		25.6		64.4
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	24.5	* 31		* 21		* 59
Max Q Clear Time ( $g_c+11$ ), s	24.5	33.4		20.3		10.4
Green Ext Time (p_c), s	0.0	0.0		0.3		10.4
Intersection Summary						
· · · · · · · · · · · · · · · · · · ·			(1.)			
HCM 6th Ctrl Delay			61.3			
HCM 6th LOS			E			
Notoc						

Notes

# HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

	۶	+	•	•	ł	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u></u>	<u></u> ↑↑₽		ሻ	<u> ተተ</u> ጮ			4			4	
Traffic Volume (veh/h)	25	1297	54	55	1763	65	10	7	24	40	4	71
Future Volume (veh/h)	25	1297	54	55	1763	65	10	7	24	40	4	71
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	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	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27 0.92	1410	59 0.92	60	1916	71	11	8 0.92	26	43 0.92	4	77
Peak Hour Factor	0.92	0.92 2	0.92	0.92 2	0.92 2	0.92 2	0.92 2	0.92	0.92 2	0.92	0.92 2	0.92 2
Percent Heavy Veh, % Cap, veh/h	201	2781	116	217	2796	103	150	122	304	207	41	317
Arrive On Green	0.55	0.55	0.55	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	218	5026	210	361	5054	1.00	302	365	0.33 913	459	123	952
Grp Volume(v), veh/h	210	955	514	60	1290	697	45	0	0	124	0	<del>752</del> 0
Grp Sat Flow(s), veh/h/ln	218	955 1702	1833	361	1702	1837	1579	0	0	1534	0	0
Q Serve( $g_s$ ), s	5.7	15.7	15.7	6.7	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Cycle Q Clear(g_c), s	5.7	15.7	15.7	22.4	0.0	0.0	1.6	0.0	0.0	4.9	0.0	0.0
Prop In Lane	1.00	13.7	0.11	1.00	0.0	0.10	0.24	0.0	0.58	0.35	0.0	0.62
Lane Grp Cap(c), veh/h	201	1884	1014	217	1884	1016	576	0	0.50	565	0	0.02
V/C Ratio(X)	0.13	0.51	0.51	0.28	0.68	0.69	0.08	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	201	1884	1014	217	1884	1016	576	0.00	0.00	565	0.00	0.00
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.67	0.67	0.67	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.2	12.5	12.5	3.5	0.0	0.0	20.5	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.9	1.7	2.1	1.4	2.5	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.6	8.1	8.9	0.6	0.6	1.3	1.2	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	13.4	14.1	5.6	1.4	2.5	20.8	0.0	0.0	21.8	0.0	0.0
LnGrp LOS	В	В	В	А	А	А	С	А	А	С	А	А
Approach Vol, veh/h		1496			2047			45			124	
Approach Delay, s/veh		13.6			1.9			20.8			21.8	
Approach LOS		В			А			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s		24.4		6.9		17.7		3.6				
Green Ext Time (p_c), s		22.2		0.7		23.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			Α									

Notes

# HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{F}$	4	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u>ተ</u> ተጮ		ሻ	<u>ተተ</u> ኑ		٦.		77	ሻ		1
Traffic Volume (veh/h)	32	1108	183	431	1516	31	164	0	387	186	0	312
Future Volume (veh/h)	32	1108	183	431	1516	31	164	0	387	186	0	312
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	35	1204	199	468	1648	34	178	0	421	202	0	339
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	0	2	2	0	2
Cap, veh/h	58	2015	333	475	3557	73	236	0	0	236	0	0
Arrive On Green	0.01	0.15	0.15	0.27	0.69	0.69	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	4414	729	1781	5149	106	1781	178		1781	202	
Grp Volume(v), veh/h	35	929	474	468	1089	593	178	50.6		202	63.4	
Grp Sat Flow(s),veh/h/ln	1781	1702	1739	1781	1702	1851	1781	D		1781	E	
Q Serve(g_s), s	1.8	22.9	22.9	23.5	13.1	13.1	8.7			10.0		
Cycle Q Clear(g_c), s	1.8	22.9	22.9	23.5	13.1	13.1	8.7			10.0		
Prop In Lane	1.00	4554	0.42	1.00	0050	0.06	1.00			1.00		
Lane Grp Cap(c), veh/h	58	1554	794	475	2352	1279	236			236		
V/C Ratio(X)	0.61	0.60	0.60	0.99	0.46	0.46	0.76			0.86		
Avail Cap(c_a), veh/h	119	1554	794	475	2352	1279	236			238		
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	43.9	30.5	30.5	32.8	6.3	6.3	37.6			38.2		
Incr Delay (d2), s/veh	8.3	1.4	2.8	37.3	0.7	1.2	13.0			25.2		
Initial Q Delay(d3),s/veh	0.0 1.6	0.0	0.0 14.4	0.0 18.7	0.0 6.2	0.0 6.9	0.0 6.8			0.0 8.5		
%ile BackOfQ(85%),veh/In		13.8	14.4	10.7	0.2	0.9	0.8			0.0		
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	52.3	31.9	33.3	70.1	7.0	7.5	50.6			63.4		
LINGIP Delay(u), siven	52.5 D	51.9 C	33.3 C	70.1 E	7.0 A	7.5 A	50.0 D			03.4 E		
•	D	1438	C	<u> </u>		A	D			<u> </u>		
Approach Vol, veh/h Approach Delay, s/veh		32.9			2150 20.9							
Approach LOS		52.9 C			20.9 C							
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	6.9	67.2	15.9		28.0	46.1	15.9					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	6.0	* 45	10.0		24.0	* 27	12.0					
Max Q Clear Time (g_c+l1), s	3.8	15.1	10.7		25.5	24.9	12.0					
Green Ext Time (p_c), s	0.0	15.3	0.0		0.0	1.6	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			28.7									
HCM 6th LOS			С									
• • •												

#### Notes

3.8

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	۲.	朴朴		ኘ	<b>ተተ</b> ኈ			4			4		
Traffic Vol, veh/h	70	2288	15	8	2320	7	8	0	8	11	0	72	
Future Vol, veh/h	70	2288	15	8	2320	7	8	0	8	11	0	72	
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	49	-	-	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	76	2487	16	9	2522	8	9	0	9	12	0	78	

Major/Minor	Major1		Ν	/lajor2		١	Minor1		N	Ainor2				
Conflicting Flow All	2530	0	0	2503	0	0	3674	5195	1252	3691	5199	1265		
Stage 1	-	-	-	-	-	-	2647	2647	-	2544	2544	-		
Stage 2	-	-	-	-	-	-	1027	2548	-	1147	2655	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	~ 67	-	-	69	-	-	~ 5	0	140	~ 5	0	138		
Stage 1	-	-	-	-	-	-	13	48	-	15	54	-		
Stage 2	-	-	-	-	-	-	226	54	-	190	47	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	~ 67	-	-	69	-	-	-	0	140	-	0	138		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-		
Stage 1	-	-	-	-	-	-	13	0	-	15	47	-		
Stage 2	-	-	-	-	-	-	85	47	-	-	0	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	7.6			0.2										
HCM LOS							-			-				
Minor Lane/Major Mvr	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)		-	~ 67	-	-	69	-	-	-					
HCM Lane V/C Ratio		-	1.136	-	-	0.126	-	-	-					
HCM Control Delay (s	)	-	257.7	-	-	64.6	-	-	-					
HCM Lane LOS		-	F	-	-	F	-	-	-					
HCM 95th %tile Q(veh	1)	-	5.9	-	-	0.4	-	-	-					
Notes														
~: Volume exceeds ca	pacity	\$: D	elay exc	eeds 30	)0s	+: Com	putatior	n Not D	efined	*: All	major v	olume in	platoon	

Intersection							
Int Delay, s/veh	1.2						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	l
Lane Configurations	朴朴		- ሽ	<b>^</b>	۰¥		
Traffic Vol, veh/h	2285	5	28	2263	7	17	
Future Vol, veh/h	2285	5	28	2263	7	17	
Conflicting Peds, #/hr	0	0	0	0	0	0	l
Sign Control	Free	Free	Free	Free	Stop	Stop	1
RT Channelized	-	None	-	None	-	None	•
Storage Length	-	-	86	-	0	-	
Veh in Median Storage	e, # 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	2484	5	30	2460	8	18	

Major/Minor	Major1	Ν	/lajor2	I	Vinor1			
Conflicting Flow All	0	0	2489	0	3531	1245		
Stage 1	-	-	-	-	2487	-		
Stage 2	-	-	-	-	1044	-		
Critical Hdwy	-	-	5.34	-	5.74	7.14		
Critical Hdwy Stg 1	-	-	-	-	6.64	-		
Critical Hdwy Stg 2	-	-	-	-	6.04	-		
Follow-up Hdwy	-	-	3.12	-	3.82	3.92		
Pot Cap-1 Maneuver	-	-	70	-	13	142		
Stage 1	-	-	-	-	27	-		
Stage 2	-	-	-	-	270	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver		-	70	-	~ 7	142		
Mov Cap-2 Maneuver		-	-	-	22	-		
Stage 1	-	-	-	-	27	-		
Stage 2	-	-	-	-	154	-		
Approach	EB		WB		NB			
HCM Control Delay, s	s 0		1.1		119.4			
HCM LOS					F			
Minor Lane/Major Mvr	mt N	VBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)		55	-	-	= 0	-		
HCM Lane V/C Ratio		0.474	_			-		
HCM Control Delay (s		119.4	_	_	91.2	_		
HCM Lane LOS	,	F	_	-	F	_		
HCM 95th %tile Q(vel	h)	1.8	-	_	1.7	_		
	· · ·	1.0			1.7			
Notes								
~: Volume exceeds ca	apacity	\$: De	lay exc	eeds 3	00s	+: Comp	outation Not Defined	*: All major volume in platoon

#### Intersection

Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	0	24	0	0	16
Future Vol, veh/h	0	0	24	0	0	16
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	0	0	26	0	0	17

Major/Minor	Minor1	Ν	/lajor1	Ν	/lajor2	
Conflicting Flow All	43	26	0	0	26	0
Stage 1	26	-	-	-	-	-
Stage 2	17	-	-	-	-	-
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	968	1050	-	-	1588	-
Stage 1	997	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	968	1050	-	-	1588	-
Mov Cap-2 Maneuver	968	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1006	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWI	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1588	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	Α	Α	-
HCM 95th %tile Q(veh)	-	-	-	0	-

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020	)/2020
------------	--------

	۶	-	$\mathbf{r}$	*	+	•	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	ተተተ		ሻሻ	<b>**</b>	1	ሻሻ	<b>††</b>	1	ሻሻ	- <b>†</b> †	1
Traffic Volume (veh/h)	120	1812	0	174	1289	187	127	684	419	501	610	132
Future Volume (veh/h)	120	1812	0	174	1289	187	127	684	419	501	610	132
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	4070	No	•	1070	No	1070	1070	No	4070	1070	No	4070
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	1970	0	189	1401	203	138	743	455	545	663	143
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	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	1787	0	144	1745	740	193	1128	503	432	1374	613
Arrive On Green	0.05	0.35	0.00	0.08	0.68	0.68	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	3456	5274	0	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	130	1970	0	189	1401	203	138	743	455	545	663	143
Grp Sat Flow(s),veh/h/ln	1728	1702	0	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.5	42.0	0.0	5.0	23.1	5.3	4.7	21.7	33.0	15.0	16.9	7.3
Cycle Q Clear(g_c), s	4.5	42.0	0.0	5.0	23.1	5.3	4.7	21.7	33.0	15.0	16.9	7.3
Prop In Lane	1.00	1707	0.00	1.00	1745	1.00	1.00	1100	1.00	1.00	1074	1.00
Lane Grp Cap(c), veh/h	173	1787	0	144	1745	740	193	1128	503	432	1374	613
V/C Ratio(X)	0.75	1.10	0.00	1.31	0.80	0.27	0.72	0.66	0.90	1.26	0.48	0.23
Avail Cap(c_a), veh/h	173	1787	0	144	1745	740	259	1128	503	432	1374	613
HCM Platoon Ratio	1.00 1.00	1.00 1.00	1.00 0.00	2.00 0.92	2.00	2.00 0.92	1.00 0.13	1.00 0.13	1.00 0.13	1.00	1.00 1.00	1.00
Upstream Filter(I)		39.0	0.00	0.92 55.0	0.92 16.2	0.92 8.9	0.13 55.7	35.3	0.13 39.2	1.00 52.5	27.7	1.00
Uniform Delay (d), s/veh Incr Delay (d2), s/veh	56.3 15.2	39.0 55.1	0.0	55.0 178.7	3.7	0.8	0.4	35.3 0.4	39.2 4.0	52.5 135.2	1.2	24.8 0.9
<b>J i i j</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	4.0	135.2 0.0	0.0	0.9
Initial Q Delay(d3),s/veh %ile BackOfQ(85%),veh/In	3.9	33.8	0.0	8.6	7.9	3.0	2.6	10.5	14.6	20.4	10.2	4.7
Unsig. Movement Delay, s/veh		JJ.0	0.0	0.0	1.9	3.0	2.0	10.5	14.0	20.4	10.2	4.7
LnGrp Delay(d), s/veh	71.4	94.1	0.0	233.7	19.9	9.7	56.1	35.7	43.2	187.7	29.0	25.7
LINGIP Delay(u), siven	71.4 E	94.1 F	0.0 A	233.7 F	19.9 B	9.7 A	50.1 E	55.7 D	43.2 D	107.7 F	29.0 C	25.7 C
Approach Vol, veh/h	<u> </u>	2100		1	1793	~	<u> </u>	1336	D	<u> </u>	1351	
Approach Delay, s/veh		92.7			41.3			40.4			92.7	
Approach LOS		92.7 F			41.3 D			40.4 D			92.7 F	
											Г	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	46.5	10.7	52.8	9.0	47.5	19.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				
Max Green Setting (Gmax), s	6.0	* 41	9.0	44.1	5.0	* 42	15.0	38.1				
Max Q Clear Time (g_c+l1), s	6.5	25.1	6.7	18.9	7.0	44.0	17.0	35.0				
Green Ext Time (p_c), s	0.0	13.3	0.0	9.2	0.0	0.0	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			68.1									
HCM 6th LOS			E									
												_

Notes

	-	$\mathbf{r}$	4	←	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>†</b> ††	ኘኘ	11
Traffic Volume (veh/h)	2473	395	156	1476	162	190
Future Volume (veh/h)	2473	395	156	1476	162	190
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	Ū	1.00	1.00	Ū	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	1.00	1.00	No	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2688	429	170	1604	176	207
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3481	1254	253	4076	377	305
Arrive On Green	0.68	0.68	0.07	4078	0.11	0.11
	0.68 5274	0.68 1585	3456	0.80 5274		2790
Sat Flow, veh/h					3456	
Grp Volume(v), veh/h	2688	429	170	1604	176	207
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1395
Q Serve(g_s), s	42.5	9.3	5.8	11.1	5.7	8.6
Cycle Q Clear(g_c), s	42.5	9.3	5.8	11.1	5.7	8.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3481	1254	253	4076	377	305
V/C Ratio(X)	0.77	0.34	0.67	0.39	0.47	0.68
Avail Cap(c_a), veh/h	3481	1254	288	4076	377	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.91	0.91	0.41	0.41
Uniform Delay (d), s/veh	12.8	3.6	54.2	3.6	50.2	51.4
Incr Delay (d2), s/veh	0.2	0.1	3.2	0.3	1.7	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	15.9	5.2	4.2	4.8	3.6	8.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.0	3.7	57.4	3.8	51.9	56.4
LnGrp LOS	B	A	E	A	D	E
Approach Vol, veh/h	3117		<b>L</b>	1774	383	
Approach Delay, s/veh	11.7			8.9	565 54.3	
11 21						
Approach LOS	В			А	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		101.0		19.0	14.0	87.0
Change Period (Y+Rc), s		* 5.2		5.9	* 5.2	* 5.2
Max Green Setting (Gmax), s		* 96		13.1	* 10	* 82
Max Q Clear Time (g_c+l1), s		13.1		10.6	7.8	44.5
Green Ext Time (p_c), s		26.6		0.5	0.0	35.1
Intersection Summary						
HCM 6th Ctrl Delay			13.9			
HCM 6th LOS			13.9 B			
			D			

Notes

## HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	•	-	*	1	٦	۲	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	ሻ	1111	1	ካካ	ተተተ		ሻሻሻ		77			
Traffic Volume (veh/h)	25	2040	582	635	1325	0	274	0	455	0	0	
Future Volume (veh/h)	25	2040	582	635	1325	0	274	0	455	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	27	2217	633	690	1440	0	298	298	495			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	44	2482	769	1194	3702	0	500	500	1241			
Arrive On Green	0.01	0.13	0.13	0.35	0.72	0.00	0.10	0.10	0.10			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	27	2217	633	690	1440	0	298	298	495			
Grp Sat Flow(s), veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	1.8	40.7	40.4	19.6	13.0	0.0	6.8	6.8	0.0			
Cycle Q Clear(g_c), s	1.8	40.7	40.4	19.6	13.0	0.0	6.8	6.8	0.0			
Prop In Lane	1.00	10.7	1.00	1.00	10.0	0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	44	2482	769	1194	3702	0.00	500	500	1241			
V/C Ratio(X)	0.61	0.89	0.82	0.58	0.39	0.00	0.60	0.60	0.40			
Avail Cap(c_a), veh/h	74	2482	769	1194	3702	0.00	1134	1134	1594			
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	58.9	49.9	37.3	32.1	6.3	0.0	51.7	51.7	22.5			
Incr Delay (d2), s/veh	7.8	3.3	5.9	0.7	0.3	0.0	1.1	1.1	0.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	1.7	21.5	25.4	11.3	6.5	0.0	4.7	4.7	11.3			
Unsig. Movement Delay, s/veh		21.0	20.4	11.5	0.0	0.0	т.7	7.7	11.5			
LnGrp Delay(d),s/veh	66.7	53.2	43.2	32.8	6.6	0.0	52.9	52.9	22.7			
LnGrp LOS	E	55.2 D	ч <u>ј</u> .2	52.0 C	A	A	52.7 D	52.7 D	C			
Approach Vol, veh/h	<u> </u>	2877	U	0	2130	<u></u>	793	793	0			
Approach Delay, s/veh		51.1			15.1		34.0	34.0				
Approach LOS		51.1 D					34.0 C	54.0 C				
Approach LOS		U			В		C	C				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	7.5	93.7		18.8	48.2	53.0						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	5.0	* 68		27.1	* 27	* 46						
Max Q Clear Time (g_c+I1), s	3.8	15.0		8.8	21.6	42.7						
Green Ext Time (p_c), s	0.0	30.6		3.1	1.4	3.6						
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									
Notes			-									

#### Notes

User approved ignoring U-Turning movement. \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

08/10/2020
------------

	۶	-	•	•	-	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሻ	ተተኈ		<u>۲</u>	***	1	<u>۲</u>	- <b>††</b>	1	- ሽ	- <b>††</b>	1
Traffic Volume (veh/h)	313	2260	84	34	1614	92	231	813	223	221	366	278
Future Volume (veh/h)	313	2260	84	34	1614	92	231	813	223	221	366	278
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	340	2457	91	37	1754	100	251	884	242	240	398	302
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	208	1917	71	179	1880	583	342	1010	538	242	1089	591
Arrive On Green	0.07	0.38	0.38	0.06	0.37	0.37	0.06	0.28	0.28	0.08	0.31	0.31
Sat Flow, veh/h	1781	5055	186	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	340	1649	899	37	1754	100	251	884	242	240	398	302
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.0	34.1	34.1	1.1	29.8	3.8	5.0	21.3	10.7	7.0	7.9	13.3
Cycle Q Clear(g_c), s	6.0	34.1	34.1	1.1	29.8	3.8	5.0	21.3	10.7	7.0	7.9	13.3
Prop In Lane	1.00	1001	0.10	1.00	1000	1.00	1.00	1010	1.00	1.00	1000	1.00
Lane Grp Cap(c), veh/h	208	1291	697	179	1880	583	342	1010	538	242	1089	591
V/C Ratio(X)	1.63	1.28	1.29	0.21	0.93	0.17	0.73	0.88	0.45	0.99	0.37	0.51
Avail Cap(c_a), veh/h	208	1291	697	179	1880	583	342	1066	564	242	1145	616
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	0.09	0.09	0.09	0.67	0.67	0.67
Uniform Delay (d), s/veh	24.3	27.9	27.9	21.4	27.4	19.2	27.6	30.7	23.2	28.0	24.4	21.9
Incr Delay (d2), s/veh	306.2	131.0	141.3	0.6	10.0	0.6	0.8	0.8	0.1	44.9	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0 56.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	28.6	49.8	50.Z	0.8	17.0	2.7	3.1	9.9	4.5	6.7	4.8	6.7
Unsig. Movement Delay, s/veh	330.5	159.0	169.2	21.9	37.4	19.8	28.3	31.5	23.2	72.9	24.5	22.3
LnGrp Delay(d),s/veh	330.5 F	159.0 F	109.2 F	21.9 C	37.4 D	19.8 B	28.3 C	31.5 C	23.2 C	72.9 E	24.5 C	
LnGrp LOS	<u> </u>		F	C		D	C		C	E		<u> </u>
Approach Vol, veh/h		2888			1891			1377 20 F			940	
Approach Delay, s/veh		182.3			36.2			29.5			36.2	
Approach LOS		F			D			С			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	38.2	9.0	32.8	9.0	39.2	11.0	30.8				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	6.0	* 32	5.0	* 29	5.0	* 33	7.0	* 27				
Max Q Clear Time (g_c+I1), s		31.8	7.0	15.3	3.1	36.1	9.0	23.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			94.4									
HCM 6th LOS			F									

Notes

	≯	-	-	×.	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘካ	<b>^</b>	<b>^</b>	1	ኘካ	11
Traffic Volume (veh/h)	627	2384	1789	263	80	112
Future Volume (veh/h)	627	2384	1789	263	80	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	682	2591	1945	286	87	122
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	653	3086	1895	588	960	1302
Arrive On Green	0.38	1.00	0.37	0.37	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	682	2591	1945	286	87	122
Grp Sat Flow(s), veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve(g_s), s	17.0	0.0	33.4	12.5	1.7	2.2
Cycle Q Clear(g_c), s	17.0	0.0	33.4	12.5	1.7	2.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	653	3086	1895	588	960	1302
V/C Ratio(X)	1.04	0.84	1.03	0.49	0.09	0.09
Avail Cap(c_a), veh/h	653	3086	1895	588	960	1302
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	28.0	0.0	28.3	21.7	24.1	13.4
Incr Delay (d2), s/veh	47.5	2.9	27.7	2.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	12.9	1.5	22.5	7.3	1.3	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	75.5	2.9	56.0	24.6	24.3	13.5
LnGrp LOS	F	А	F	С	С	В
Approach Vol, veh/h		3273	2231		209	
Approach Delay, s/veh		18.0	52.0		18.0	
Approach LOS		В	D		В	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	21.0	39.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	17.0	* 33
Max Q Clear Time (g_c+I1), s		2.0		4.2	19.0	35.4
Green Ext Time (p_c), s		40.0		0.7	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			31.3			
HCM 6th LOS			C			
··· · • •			~			

	≯	-	+	*	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u> </u>	<b>†</b> ††	<b>†</b> Ъ		ኘካ	1
Traffic Volume (veh/h)	689	1818	989	337	218	208
Future Volume (veh/h)	689	1818	989	337	218	200
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	U	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	749	1976	1075	366	237	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	524	3867	1108	372	454	675
Arrive On Green	524 0.29	0.76	0.28	0.28	454 0.13	0/5
Sat Flow, veh/h	1781	5274	2705	877	3456	1585
Grp Volume(v), veh/h	749	1976	727	714	237	226
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1712	1728	1585
Q Serve(g_s), s	26.5	13.8	36.3	37.3	5.8	8.6
Cycle Q Clear(g_c), s	26.5	13.8	36.3	37.3	5.8	8.6
Prop In Lane	1.00			0.51	1.00	1.00
Lane Grp Cap(c), veh/h	524	3867	754	726	454	675
V/C Ratio(X)	1.43	0.51	0.96	0.98	0.52	0.33
Avail Cap(c_a), veh/h	524	3867	754	726	806	837
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.52	0.52	0.95	0.95
Uniform Delay (d), s/veh	31.8	4.3	31.5	31.9	36.4	17.3
Incr Delay (d2), s/veh	203.5	0.5	16.6	20.5	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	56.7	5.6	22.8	23.3	4.0	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	235.2	4.8	48.1	52.4	37.3	17.6
LnGrp LOS	F	A	D	D	D	В
Approach Vol, veh/h	· ·	2725	1441		463	
Approach Delay, s/veh		68.1	50.2		27.7	
Approach LOS		E	50.2 D		27.7 C	
			U		C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	30.0	43.2		16.8		73.2
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	26.5	* 29		* 21		* 59
Max Q Clear Time (g_c+I1), s		39.3		10.6		15.8
Green Ext Time (p_c), s	0.0	0.0		1.2		24.5
Intersection Summary						
HCM 6th Ctrl Delay			58.5			
HCM 6th LOS			E			

# HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

Movement         EBI         EBT         EBR         WBL         WBT         WBL         NBT         NBR         SBL         SB		۶	+	•	•	ł	•	1	1	1	*	Ŧ	~
Traffic Volume (veh/n)       64       1851       20       14       1336       80       9       2       11       35       1       93         Future Volume (veh/n)       64       1851       20       14       1336       80       9       2       11       35       1       93         Future Volume (veh/n)       64       1851       20       14       1336       80       9       2       11       35       1       93         Perd-Bike Adj(A, pb1)       1.00       1.01       1.00       1.03       3.03       3.3       3.3       3.3       3.3       3.3       3.3       3.3       3.3       3.3 <th>Movement</th> <th></th> <th></th> <th>EBR</th> <th></th> <th></th> <th>WBR</th> <th>NBL</th> <th></th> <th>NBR</th> <th>SBL</th> <th></th> <th>SBR</th>	Movement			EBR			WBR	NBL		NBR	SBL		SBR
Future Volume (veh/h)       64       1851       20       14       1336       80       9       2       11       35       1       93         Initial O (Ob), veh       0		-							4			- <b>4</b> >	
Initial O(Db), veh       0	· · · · ·												
Pack Bike Adj(A, pbT)       1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Parking Bus, Adj       1.00       No       No<			0			0			0			0	
Work Zone On Ápproach         No         No         No         No         No         No           Adj Sat Flow, vehn/hin         1870         1873         1875         1873         1			1.00			1.00			4.00			1 0 0	
Acij Sat Flow, vehr/hn       1870       <		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Adj Flow Rale, veh/h       70       2012       22       15       1452       87       10       2       12       38       1       101         Peak Hour Factor       0.92		1070		1070	1070		1070	1070		1070	1070		1070
Peak Hour Factor       0.92       0.9													
Percent Heavy Veh, %       2 <th2< th="">       2       <th2< th=""></th2<></th2<>													
Cap, veh/h       266       2881       31       137       1885       113       246       65       254       165       30       374         Arrive On Green       0.55       0.55       0.00       1.00       0.03       0.33													
Arrive On Green       0.55       0.55       1.00       1.00       1.00       0.33													
Sat Flow, veh/h       337       5207       57       208       3407       203       568       194       761       342       91       1121         Grp Volume(V), veh/h       70       1315       719       15       755       784       24       0       0       140       0       0         Grp Sat Flow(s), veh/h/lin       337       1702       1860       208       1777       1834       1523       0       0       1554       0       0         O Serve(g.s), s       10.5       25.3       25.3       28.0       0													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
Grp Sat Flow(s), veh/h/ln       337       1702       1860       208       1777       1834       1523       0       0       1554       0       0         O Serve(g_s), s       10.5       25.3       25.3       3.8       0.0<													
Q Serve(g_s), s       10.5       25.3       25.3       3.8       0.0       0.0       0.0       0.0       0.2       0.0       0.0         Cycle O Clear(g_c), s       10.5       25.3       25.3       29.1       0.0       0													
Cycle Q Clear(g_c), s       10.5       25.3       25.3       29.1       0.0       0.0       0.0       5.6       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.26       0.70       0.71       0.77       0.04       0.00       0.00       0.25       0.00       0.00         Avait Cap(c_a), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       2.00       1.00       1.00       1.00       1.00       1.00       0.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.26       0.70       0.71       0.77       0.74       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       0.00													
Lane Grp Cap(c), veh/h2661884102913798310155640056900V/C Ratio(X)0.260.700.700.110.770.770.040.000.000.250.000.00Avail Cap(c_a), veh/h2661884102913798310155640056900HCM Platoon Ratio1.001.001.002.002.002.001.001.001.001.001.001.00Upstream Filter(I)0.850.850.500.500.501.000.000.000.000.000.000.00Uniform Delay (d), s/veh11.314.614.67.40.00.02.030.00.02.180.00.0Intil D Delay (d2), s/veh2.01.93.40.82.92.90.10.00.00.00.00.0Intil D Delay (d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0Wile BackOfQ (85%), weh/ln1.612.313.80.31.41.50.60.00.022.10.00.0Unsig. Movement Delay (d), s/veh13.416.518.08.22.92.92.0.40.00.022.10.00.0LnGrp Delay (d), s/veh13.416.518.08.22.92.92.40.00.0 </td <td></td> <td></td> <td>20.0</td> <td></td> <td></td> <td>0.0</td> <td></td> <td></td> <td>0.0</td> <td></td> <td></td> <td>0.0</td> <td></td>			20.0			0.0			0.0			0.0	
V/C Ratio(X)       0.26       0.70       0.71       0.77       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       2.00       2.00       2.00       1.00			1884			983			0			0	
Avail Cap(c_a), veh/h       266       1884       1029       137       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       2.00       2.00       1.0													
HCM Platoon Ratio1.001.001.002.002.002.001	.,												
Upstream Filter(I)       0.85       0.85       0.85       0.50       0.50       0.50       1.00       0.00       1.00       0													
Uniform Delay (d), s/veh11.314.614.67.40.00.020.30.00.021.80.00.0Incr Delay (d2), s/veh2.01.93.40.82.92.90.10.00.00.20.00.0Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln1.612.313.80.31.41.50.60.00.00.00.00.0Unsig. Movement Delay, s/veh116.518.08.22.92.920.40.00.022.10.00.0Unsig. Movement Delay, s/veh13.416.518.08.22.92.920.40.00.022.10.00.0LnGrp Delay(d), s/veh13.416.518.08.22.92.920.40.00.022.10.00.0LnGrp Delay, d/d, s/veh16.93.020.424140													
Incr Delay (d2), s/veh       2.0       1.9       3.4       0.8       2.9       2.9       0.1       0.0       0													
Initial Q Delay(d3),s/veh       0.0 <t< td=""><td></td><td></td><td></td><td></td><td>0.8</td><td></td><td></td><td></td><td>0.0</td><td></td><td></td><td>0.0</td><td>0.0</td></t<>					0.8				0.0			0.0	0.0
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       13.4       16.5       18.0       8.2       2.9       2.9       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp LOS       B       B       B       A       A       C       A       A       C       A       A         Approach Vol, veh/h       2104       1554       24       140         Approach Delay, s/veh       16.9       3.0       20.4       22.1         Approach LOS       B       A       C       C       C         Timer - Assigned Phs       2       4       6       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
LnGrp Delay(d),s/veh       13.4       16.5       18.0       8.2       2.9       2.9       20.4       0.0       0.0       22.1       0.0       0.0         LnGrp LOS       B       B       B       A       A       C       A       A       C       A       A         Approach Vol, veh/h       2104       1554       24       140         Approach Delay, s/veh       16.9       3.0       20.4       22.1       A         Approach LOS       B       A       A       C       C       C       C         Timer - Assigned Phs       2       4       6       8	%ile BackOfQ(85%),veh/ln	1.6	12.3	13.8	0.3	1.4	1.5	0.6	0.0	0.0	3.7	0.0	0.0
LnGrp LOS         B         B         B         A         A         C         A         C         A         C         A         A         C         A         C         A         A         C         A         C         A         A         C         A         C         A         C         A         C         A         C         A         A         C         A         C         A         A         C         A         A         C         A         A         D <thd< th=""> <thd< th=""> <thd< t<="" td=""><td>Unsig. Movement Delay, s/veh</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thd<></thd<></thd<>	Unsig. Movement Delay, s/veh												
Approach Vol, veh/h       2104       1554       24       140         Approach Delay, s/veh       16.9       3.0       20.4       22.1         Approach LOS       B       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	LnGrp Delay(d),s/veh	13.4	16.5	18.0	8.2	2.9	2.9		0.0	0.0	22.1	0.0	0.0
Approach Delay, s/veh       16.9       3.0       20.4       22.1         Approach LOS       B       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5	LnGrp LOS	В	В	В	Α		А	С		А	С		<u> </u>
Approach LOS       B       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	Approach Vol, veh/h		2104						24				
Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+11), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	Approach Delay, s/veh		16.9			3.0			20.4				
Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	Approach LOS		В			А			С			С	
Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	Timer - Assigned Phs		2		4		6		8				
Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+l1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary         HCM 6th Ctrl Delay       11.5	Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Max Q Clear Time (g_c+l1), s       31.1       7.6       27.3       2.9         Green Ext Time (p_c), s       14.9       0.8       20.8       0.1         Intersection Summary       11.5       11.5       11.5	Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Green Ext Time (p_c), s         14.9         0.8         20.8         0.1           Intersection Summary         HCM 6th Ctrl Delay         11.5         11.5	Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Intersection Summary HCM 6th Ctrl Delay 11.5	· /												
HCM 6th Ctrl Delay 11.5	Green Ext Time (p_c), s		14.9		0.8		20.8		0.1				
, ,	· · · · · · · · · · · · · · · · · · ·												
HCM 6th LOS B													
	HCM 6th LOS			В									

Notes

# HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{F}$	4	+	•	1	t	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	_ ነ	<u>ተ</u> ተጮ		<u>۲</u>	<u>ተተ</u> ኑ		٦.		77	ሻ		1
Traffic Volume (veh/h)	306	1425	145	228	1007	340	249	0	1127	33	0	41
Future Volume (veh/h)	306	1425	145	228	1007	340	249	0	1127	33	0	41
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	333	1549	158	248	1095	370	271	0	1225	36	0	45
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	0	2	2	0	2
Cap, veh/h	356	2453	250	284	1811	612	312	0	0	312	0	0
Arrive On Green	0.27	0.69	0.69	0.16	0.48	0.48	0.18	0.00	0.00	0.18	0.00	0.00
Sat Flow, veh/h	1781	4708	480	1781	3771	1274	1781	271		1781	36	
Grp Volume(v), veh/h	333	1120	587	248	988	477	271	48.3		36	31.4	
Grp Sat Flow(s),veh/h/ln	1781	1702	1784	1781	1702	1641	1781	D		1781	С	
Q Serve(g_s), s	16.4	16.2	16.2	12.2	19.1	19.1	13.3			1.5		_
Cycle Q Clear(g_c), s	16.4	16.2	16.2	12.2	19.1	19.1	13.3			1.5		
Prop In Lane	1.00	1770	0.27	1.00	1/05	0.78	1.00			1.00		_
Lane Grp Cap(c), veh/h	356	1773	929	284	1635	788	312			312		
V/C Ratio(X)	0.93 356	0.63 1773	0.63 929	0.87 317	0.60	0.60 788	0.87 445			0.12 312		
Avail Cap(c_a), veh/h HCM Platoon Ratio	1.33		1.33	1.00	1635		445 1.00			1.00		
Upstream Filter(I)	0.62	1.33 0.62	0.62	1.00	1.00 1.00	1.00 1.00	1.00			1.00		
Uniform Delay (d), s/veh	32.5	9.1	0.02 9.1	36.9	17.1	17.1	36.1			31.2		
Incr Delay (d2), s/veh	22.7	9.1 1.1	2.0	21.1	1.7	3.4	12.2			0.2		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.2		
%ile BackOfQ(85%),veh/ln	11.1	6.1	6.7	9.6	10.2	10.4	9.4			1.2		
Unsig. Movement Delay, s/veh		0.1	0.7	7.0	10.2	10.4	7.7			1.2		
LnGrp Delay(d),s/veh	55.2	10.2	11.1	58.1	18.8	20.5	48.3			31.4		
LnGrp LOS	E	В	B	E	B	20.5 C	40.5 D			С		
Approach Vol, veh/h	<u> </u>	2040	D	<u> </u>	1713	0	<u> </u>			0		
Approach Delay, s/veh		17.8			25.0							
Approach LOS		В			20.0 C							
	1		2			1	7					
Timer - Assigned Phs	22.0	2	3		10.0	6	/					
Phs Duration (G+Y+Rc), s	22.0	48.2 * 5	19.8		18.3	51.9	19.8					
Change Period (Y+Rc), s	4.0		4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s Max Q Clear Time (g_c+I1), s	18.0 18.4	* 28	22.5 15.3		16.0 14.2	* 30	5.0 3.5					
Green Ext Time (p_c), s	18.4 0.0	21.1 4.6	0.5		14.2 0.1	18.2 8.1	3.5 0.0					
q = r	0.0	4.0	0.5		0.1	Ö. I	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			С									
•• .												

#### Notes

6.4												
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
	朴朴。		- ሽ	朴朴序			- 🗘			- 🗘		
53	1790	20	24	1846	18	4	1	15	9	0	45	
53	1790	20	24	1846	18	4	1	15	9	0	45	
0	0	0	0	0	0	0	0	0	0	0	0	
Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
-	-	None	-	-	None	-	-	None	-	-	None	
49	-	-	0	-	-	-	-	-	-	-	-	
e,# -	0	-	-	0	-	-	0	-	-	0	-	
-	0	-	-	0	-	-	0	-	-	0	-	
92	92	92	92	92	92	92	92	92	92	92	92	
2	2	2	2	2	2	2	2	2	2	2	2	
58	1946	22	26	2007	20	4	1	16	10	0	49	
	EBL 53 53 0 Free - 49 e, # - - 92 2	EBL       EBT         ↑       ↑         53       1790         53       1790         0       0         Free       Free         -       -         49       -         e, #       0         92       92         2       2	EBL         EBT         EBR           ↑         ↑         ↓           53         1790         20           53         1790         20           53         1790         20           53         1790         20           53         1790         20           53         1790         20           53         1790         20           53         1790         20           6         Free         Free           49         -         -           49         -         -           5         0         -           6         -         0           92         92         92           2         2         2	EBL         EBT         EBR         WBL           ↑         ↑         ↑         ↑         ↑           53         1790         20         24           53         1790         20         24           53         1790         20         24           0         0         0         0           Free         Free         Free         Free           -         None         -           49         -         -         0           e, # -         0         -         -           92         92         92         92           2         2         2         2	EBL         EBT         EBR         WBL         WBT           ↑↑↑↓         •↑↑↓         •↑↑↓         •↑↑↓           53         1790         20         24         1846           53         1790         20         24         1846           0         0         0         0         0           Free         Free         Free         Free         Free           *         •         None         •         •           49         •         •         0         •           *         •         •         •         •           *         •         •         •         •           *         •         •         •         •           *         •         •         •         •           *         •         •         •         •      •         •         •         •         •         •           *         •         •         •         •         •           *         •         •         •         •         •           *         •         •         •         •         •	EBI         EBR         WBL         WBT         WBR           * * * * *         *	EBL         EBT         EBR         WBL         WBT         WBR         NBL <b>↑↑↑ ↑↑↑ ↑↑↑ ↑</b> ↑↑ <b>↑</b> ↑↑ <b>↑</b> ↑↑           53         1790         20         24         1846         18         4           53         1790         20         24         1846         18         4           53         1790         20         24         1846         18         4           0         0         0         0         0         0         0           Free         Free         Free         Free         Free         Stop         0           Free         Free         Free         Free         None         -         -           49         -         None         -         0         -         -         -           49         -         0         -         0         -         -         -         -           5, # -         0         -         0         -         -         -         -           6, # -         0         -         0         -         -         -         -           6, # -<	EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT         ↑ ↑↑↓       ↑ ↑↑↓       ↑ ↑↑↓       ↑ ↑↑↓       ↓       ↓       ↓         53       1790       20       24       1846       18       4       1         53       1790       20       24       1846       18       4       1         53       1790       20       24       1846       18       4       1         53       1790       20       24       1846       18       4       1         53       1790       20       0       0       0       0       0       0         6       0       0       0       0       0       0       0       0       0         Free       Free       Free       Free       Free       Stop        -       -       -         49       -       -       0        None        -       -       -         5,#       0       -       0        0       -       0       -       -       0       -       0       -       0       -<	EBLEBTEBRWBLWBTWBRNBLNBTNBR $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $I I I I I I I I I I I I I I I I I I I $	EBLEBRWBLWBLWBRNBLNBTNBRSBL $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow I I$ $\uparrow \uparrow I I$ $\uparrow I I I$ $I I I I$ $I I I I$ $I I I I I I$ 5317902024184618411595317902024184618411590000000000FreeFreeFreeFreeFreeStopStopStopStopFreeFreeFreeFreeFreeStopStopStopStop $(I I I I I I I I I I I I I I I I I I I $	EBLEBTEBRWBLWBTWBRNBTNBTNBRSBLSBT $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $I I I I I I I I I I I I I I I I I I I $	EBLEBRWBLWBLWBRNBLNBTNBRSBLSBTSBR $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ $I I I I I I I I I I I I I I I I I I I $

Major/Minor	Major1		Ν	/lajor2		1	Minor1		1	Minor2				
Conflicting Flow All	2027	0	0	1968	0	0	2928	4152	984	2964	4153	1014		
Stage 1	-	-	-	-	-	-	2073	2073	-	2069	2069	-		
Stage 2	-	-	-	-	-	-	855	2079	-	895	2084	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	121	-	-	130	-	-	16	2	213	15	2	203		
Stage 1	-	-	-	-	-	-	34	95	-	34	95	-		
Stage 2	-	-	-	-	-	-	289	94	-	273	93	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver		-	-	130	-	-	7	~ 1	213	-	1	203		
Mov Cap-2 Maneuver	-	-	-	-	-	-	7	~ 1	-	-	1	-		
Stage 1	-	-	-	-	-	-	18	49	-	18	76	-		
Stage 2	-	-	-	-	-	-	175	75	-	128	48	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	1.7			0.5		\$ 1	1014.8							
HCM LOS							F			-				
Minor Lane/Major Mvr	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		12	121	-	-	130	-	-	-					
HCM Lane V/C Ratio		1.812	0.476	-	-	0.201	-	-	-					
HCM Control Delay (s	) \$1	014.8	59.2	-	-	39.5	-	-	-					
HCM Lane LOS		F	F	-	-	Е	-	-	-					
HCM 95th %tile Q(ver	ו)	3.5	2.1	-	-	0.7	-	-	-					
Notes														
~: Volume exceeds ca	pacity	\$: De	elay exc	eeds 30	)0s	+: Com	putation	n Not De	efined	*: All	major v	volume i	n platoon	

02 ExP AM 5:00 pm 07/28/2020 Existing with Project Conditions AM

Intersection							
Int Delay, s/veh	0.1						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	朴朴		- ሽ	111	۰¥		
Traffic Vol, veh/h	1784	4	7	1933	0	0	)
Future Vol, veh/h	1784	4	7	1933	0	0	)
Conflicting Peds, #/hr	0	0	0	0	0	0	)
Sign Control	Free	Free	Free	Free	Stop	Stop	)
RT Channelized	-	None	-	None	-	None	ļ
Storage Length	-	-	86	-	0	-	
Veh in Median Storage	e, # 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	1939	4	8	2101	0	0	)

Major/Minor N	Major1	Ν	/lajor2	1	Vinor1	
Conflicting Flow All	0		1943	0	2797	972
Stage 1	-	-	-	-	1941	-
Stage 2	-	-	-	-	856	-
Critical Hdwy	-	-	5.34	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-	-	3.12	-	3.82	3.92
Pot Cap-1 Maneuver	-	-	134	-	34	217
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	341	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	134	-	32	217
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	321	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		0	
HCM LOS	Ū		011		Â	
N //			FDT			
Minor Lane/Major Mvm	nt Ni	BLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		-	-	-	134	-
HCM Lane V/C Ratio		-	-	-	0.057	-
HCM Control Delay (s)		0	-	-	33.5	-
HCM Lane LOS		Α	-	-	D	-

0.2

\_

HCM 95th %tile Q(veh)

### Intersection

Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	۰¥		4			- 4
Traffic Vol, veh/h	0	0	20	9	1	20
Future Vol, veh/h	0	0	20	9	1	20
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	0	0	22	10	1	22

Major/Minor	Minor1	Ν	lajor1	Ν	/lajor2	
Conflicting Flow All	51	27	0	0	32	0
Stage 1	27	-	-	-	-	-
Stage 2	24	-	-	-	-	-
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	958	1048	-	-	1580	-
Stage 1	996	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	957	1048	-	-	1580	-
Mov Cap-2 Maneuver	957	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	998	-	-	-	-	-
a 1					00	

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.3
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWE	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1580	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	-	-	0	7.3	0
HCM Lane LOS	-	-	А	А	А
HCM 95th %tile Q(veh)	-	-	-	0	-

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020
------------

	۶	-	$\mathbf{i}$	*	+	•	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	ተተተ		ሻሻ	<b>*††</b>	1	ሻሻ	<b>††</b>	1	ሻሻ	- <b>†</b> †	1
Traffic Volume (veh/h)	189	1574	0	274	1780	508	114	662	143	315	976	53
Future Volume (veh/h)	189	1574	0	274	1780	508	114	662	143	315	976	53
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	1070	No	•	1070	No	1070	1070	No	1070	4070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	1711	0	298	1935	552	124	720	155	342	1061	58
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	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	1745	0	288	1915	740	173	1128	503	317	1276	569
Arrive On Green	0.05 3456	0.34 5274	0.00	0.11	0.50	0.50	0.05	0.32 3554	0.32	0.09	0.36 3554	0.36
Sat Flow, veh/h			0	3456	5106	1585	3456		1585	3456		1585
Grp Volume(v), veh/h	205	1711 1702	0	298	1935	552	124 1728	720 1777	155	342	1061	58
Grp Sat Flow(s),veh/h/ln	1728		0 0.0	1728	1702	1585			1585	1728	1777 32.7	1585
Q Serve(g_s), s Cycle Q Clear( $g_s$ ), s	6.0 6.0	39.8 39.8	0.0	10.0 10.0	45.0 45.0	33.3 33.3	4.2 4.2	20.8 20.8	8.9 8.9	11.0 11.0	32.7	2.9 2.9
Cycle Q Clear(g_c), s Prop In Lane	1.00	37.0	0.0	1.00	40.0	33.3 1.00	4.2 1.00	20.0	0.9 1.00	1.00	32.1	1.00
Lane Grp Cap(c), veh/h	173	1745	0.00	288	1915	740	173	1128	503	317	1276	569
V/C Ratio(X)	1.19	0.98	0.00	1.03	1.01	0.75	0.72	0.64	0.31	1.08	0.83	0.10
Avail Cap(c_a), veh/h	173	1745	0.00	288	1915	740	173	1128	503	317	1276	569
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.73	0.73	0.73	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	39.1	0.0	53.4	30.1	20.8	56.2	35.0	31.0	54.5	35.1	25.6
Incr Delay (d2), s/veh	127.5	17.4	0.0	54.6	20.2	5.0	7.7	1.8	1.0	73.4	6.4	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(85%),veh/In	8.6	23.7	0.0	8.7	24.1	14.8	3.2	11.8	5.1	11.3	19.1	2.1
Unsig. Movement Delay, s/veh	1											
LnGrp Delay(d),s/veh	184.5	56.6	0.0	107.9	50.3	25.8	63.8	36.8	32.0	127.9	41.5	25.9
LnGrp LOS	F	E	А	F	F	С	E	D	С	F	D	С
Approach Vol, veh/h		1916			2785			999			1461	
Approach Delay, s/veh		70.2			51.6			39.4			61.1	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	50.5	10.0	49.5	14.0	46.5	15.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				
Max Green Setting (Gmax), s	6.0	* 45	6.0	43.1	10.0	* 41	11.0	38.1				
Max Q Clear Time (g_c+I1), s	8.0	47.0	6.2	34.7	12.0	41.8	13.0	22.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.1	0.0	0.0	0.0	7.6				
Intersection Summary												
HCM 6th Ctrl Delay			56.8									
HCM 6th LOS			E									
• • ·												

### Notes

	-	$\mathbf{r}$	4	←	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>^</b>	ኘኘ	11
Traffic Volume (veh/h)	1725	373	152	1866	580	293
Future Volume (veh/h)	1725	373	152	1866	580	293
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1875	405	165	2028	630	318
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2630	1254	253	3225	953	769
Arrive On Green	0.51	0.51	0.07	0.63	0.28	0.28
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
						318
Grp Volume(v), veh/h	1875	405	165	2028	630	
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1395
Q Serve(g_s), s	33.8	8.6	5.6	29.1	19.4	11.2
Cycle Q Clear(g_c), s	33.8	8.6	5.6	29.1	19.4	11.2
Prop In Lane	0/00	1.00	1.00	0005	1.00	1.00
Lane Grp Cap(c), veh/h	2630	1254	253	3225	953	769
V/C Ratio(X)	0.71	0.32	0.65	0.63	0.66	0.41
Avail Cap(c_a), veh/h	2630	1254	288	3225	953	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.71	0.71	0.79	0.79
Uniform Delay (d), s/veh	22.3	3.5	54.1	13.5	38.5	35.5
Incr Delay (d2), s/veh	0.4	0.1	2.0	0.7	2.9	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	14.9	8.6	3.9	13.6	11.3	12.1
Unsig. Movement Delay, s/vel	h					
LnGrp Delay(d),s/veh	22.7	3.7	56.1	14.2	41.3	36.8
LnGrp LOS	С	A	E	В	D	D
Approach Vol, veh/h	2280			2193	948	
Approach Delay, s/veh	19.3			17.3	39.8	
Approach LOS	В			В	57.0 D	
	D					
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		81.0		39.0	14.0	67.0
Change Period (Y+Rc), s		* 5.2		5.9	* 5.2	* 5.2
Max Green Setting (Gmax), s		* 76		33.1	* 10	* 62
Max Q Clear Time (g_c+I1), s	i	31.1		21.4	7.6	35.8
Green Ext Time (p_c), s		29.8		4.2	0.0	21.1
Intersection Summary						
HCM 6th Ctrl Delay			22.1			
HCM 6th LOS			С			
N1 1						

Notes

### HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	•	←	*	1	٦	۲	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	ሻ	1111	1	ሻሻ	ተተተ		ሻሻሻ		77			
Traffic Volume (veh/h)	84	1571	418	341	1736	0	645	0	704	0	0	
Future Volume (veh/h)	84	1571	418	341	1736	0	645	0	704	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	91	1708	454	371	1887	0	701	701	765			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	74	2804	991	710	3155	0	952	952	1102			
Arrive On Green	0.01	0.14	0.14	0.21	0.62	0.00	0.19	0.19	0.19			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	91	1708	454	371	1887	0	701	701	765			
Grp Sat Flow(s), veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	5.0	29.9	21.6	11.5	26.9	0.0	15.8	15.8	2.8			
Cycle Q Clear(g_c), s	5.0	29.9	21.6	11.5	26.9	0.0	15.8	15.8	2.8			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	74	2804	991	710	3155	0	952	952	1102			
V/C Ratio(X)	1.23	0.61	0.46	0.52	0.60	0.00	0.74	0.74	0.69			
Avail Cap(c_a), veh/h	74	2804	991	710	3155	0	1218	1218	1250			
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.70	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	59.2	41.8	18.9	42.4	13.9	0.0	45.8	45.8	30.3			
Incr Delay (d2), s/veh	160.2	0.7	1.1	0.7	0.8	0.0	1.7	1.7	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	8.1	16.2	17.4	7.3	13.4	0.0	9.4	9.4	17.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	219.4	42.5	20.0	43.1	14.7	0.0	47.5	47.5	31.7			
LnGrp LOS	F	D	В	D	В	A	D	D	С			
Approach Vol, veh/h		2253			2258		1466	1466				
Approach Delay, s/veh		45.1			19.4		39.3	39.3				
Approach LOS		D			В		D	D				
	1			Λ		6	2					
Timer - Assigned Phs		2		20.7	5	6						
Phs Duration (G+Y+Rc), s	9.5	80.8		29.7	31.3	59.0 * ( 7						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7 * 50						
Max Green Setting (Gmax), s	5.0	* 60		29.1	* 19	* 52						
Max Q Clear Time (g_c+l1), s	7.0	28.9		17.8	13.5	31.9						
Green Ext Time (p_c), s	0.0	26.8		5.0	0.7	18.6						
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			С									
Notos												

### Notes

User approved ignoring U-Turning movement. \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

04/08/2021
------------

	۶	-	7	4	+	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u> ተተ</u> ጮ		<u>۲</u>	411176		<u> </u>	<b>††</b>	1	- ሽ	- <b>††</b>	1
Traffic Volume (veh/h)	205	1528	128	176	2185	89	178	625	86	278	771	192
Future Volume (veh/h)	205	1528	128	176	2185	89	178	625	86	278	771	192
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	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	1070	No	1070	1870	No 1870	1870	1870	No	1070	1870	No	1070
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1870 223	1870 1661	1870 139	1870	2375	1870 97	1870	1870 679	1870 93	302	1870 838	1870 209
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	93 0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	0.72
Cap, veh/h	185	1877	157	217	2568	105	213	929	520	279	1008	538
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.06	0.26	0.26	0.08	0.28	0.28
Sat Flow, veh/h	1781	4801	401	1781	6388	261	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	223	1177	623	191	1793	679	193	679	93	302	838	209
Grp Sat Flow(s), veh/h/ln	1781	1702	1798	1781	1609	1823	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	29.0	29.1	5.9	31.8	31.9	5.0	15.7	3.8	7.0	19.9	9.0
Cycle Q Clear(g_c), s	5.0	29.0	29.1	5.9	31.8	31.9	5.0	15.7	3.8	7.0	19.9	9.0
Prop In Lane	1.00		0.22	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	1331	703	217	1940	733	213	929	520	279	1008	538
V/C Ratio(X)	1.20	0.88	0.89	0.88	0.92	0.93	0.91	0.73	0.18	1.08	0.83	0.39
Avail Cap(c_a), veh/h	185	1331	703	217	1940	733	213	1066	581	279	1145	599
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	0.20	0.20	0.20	0.35	0.35	0.35
Uniform Delay (d), s/veh	24.8	25.5	25.5	21.4	25.6	25.6	31.2	30.4	21.6	30.7	30.2	22.6
Incr Delay (d2), s/veh	131.4	8.9	15.4	31.7	9.0	19.4	11.2	0.5	0.0	56.3	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 3.2	0.0 7.8	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln Unsig. Movement Delay, s/veh	12.9	16.5	18.8	6.3	16.9	21.3	3.Z	7.8	1.9	9.0	10.3	4.4
LnGrp Delay(d), s/veh	156.2	34.4	40.9	53.1	34.6	45.1	42.4	30.8	21.6	87.1	32.0	22.8
LIGIP LOS	F	C	40.7 D	55.1 D	04.0 C	4J.1 D	42.4 D	<u>с</u>	21.0 C	67.1 F	52.0 C	22.0 C
Approach Vol, veh/h		2023	D	D	2663	D	D	965	0		1349	
Approach Delay, s/veh		49.8			38.6			32.2			42.9	
Approach LOS		D			00.0 D			C			D	
	1	2	3	Λ		4	7	8				
Timer - Assigned Phs Phs Duration (G+Y+Rc), s	9.0	41.3	9.0	4 30.7	5 10.0	40.3	11.0	28.7				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	5.0	* 33	5.0	* 29	6.0	* 32	7.0	* 27				
Max Q Clear Time ( $g_c+11$ ), s	7.0	33.9	7.0	21.9	7.9	31.1	9.0	17.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.0	0.6	0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									

Notes

	۶	-	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘካ			1	<u>ነ</u> ካ	11
Traffic Volume (veh/h)	215	1660	2046	179	239	333
Future Volume (veh/h)	215	1660	2040	179	239	333
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	1804	2224	195	260	362
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	269	3086	2462	764	960	992
Arrive On Green	0.16	1.00	0.48	0.48	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	234	1804	2224	195	260	362
Grp Sat Flow(s), veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve( $g_s$ ), s	6.0	0.0	36.0	6.5	5.3	8.6
Cycle Q Clear(g_c), s	6.0	0.0	36.0	6.5	5.3	8.6
Prop In Lane	1.00	5.0	0010	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	269	3086	2462	764	960	992
V/C Ratio(X)	0.87	0.58	0.90	0.26	0.27	0.36
Avail Cap(c_a), veh/h	269	3086	2462	764	960	992
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.93	0.93
Uniform Delay (d), s/veh	37.6	0.0	21.4	13.8	25.4	21.5
Incr Delay (d2), s/veh	25.1	0.8	6.0	0.8	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	5.1	0.4	18.5	4.0	3.7	10.3
Unsig. Movement Delay, s/veh		5.1	10.0	1.0	5.1	10.0
LnGrp Delay(d),s/veh	62.7	0.8	27.4	14.6	26.0	22.4
LnGrp LOS	62.7 E	A	27.4 C	B	20.0 C	22.4 C
Approach Vol, veh/h	<u> </u>	2038	2419		622	<u> </u>
Approach Delay, s/veh		7.9	26.3		23.9	
Approach LOS		7.7 A	20.3 C		23.9 C	
			U	4		/
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	11.0	49.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	7.0	* 43
Max Q Clear Time $(g_c+11)$ , s		2.0		10.6	8.0	38.0
Green Ext Time (p_c), s		23.3		2.1	0.0	5.0
Intersection Summary						
HCM 6th Ctrl Delay			18.7			
HCM 6th LOS			В			

	≯	-	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u> </u>	<b>^</b>	<u>ተተ</u> ኑ		ካካ	1
Traffic Volume (veh/h)	520	1015	1553	254	358	424
Future Volume (veh/h)	520	1015	1553	254	358	424
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	565	1103	1688	276	389	461
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	485	3367	1542	250	793	795
Arrive On Green	0.27	0.66	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	5274	4594	719	3456	1585
Grp Volume(v), veh/h	565	1103	1296	668	389	461
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1741	1728	1585
Q Serve(g_s), s	24.5	8.4	31.4	31.4	8.8	18.4
Cycle Q Clear(g_c), s	24.5	8.4	31.4	31.4	8.8	18.4
Prop In Lane	1.00			0.41	1.00	1.00
Lane Grp Cap(c), veh/h	485	3367	1186	606	793	795
V/C Ratio(X)	1.17	0.33	1.09	1.10	0.49	0.58
Avail Cap(c_a), veh/h	485	3367	1186	606	806	801
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.64	0.50	0.50
Uniform Delay (d), s/veh	32.8	6.7	34.5	34.5	30.1	15.8
Incr Delay (d2), s/veh	94.8	0.3	51.1	61.2	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	30.5	4.4	27.2	29.9	5.0	20.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	127.6	6.9	85.6	95.7	30.3	16.3
LnGrp LOS	F	А	F	F	С	В
Approach Vol, veh/h		1668	1964		850	
Approach Delay, s/veh		47.8	89.0		22.7	
Approach LOS		D	F		С	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	28.0	36.4		25.6		64.4
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	24.5	* 31		* 21		* 59
Max Q Clear Time (g_c+I1), s	26.5	33.4		20.4		10.4
Green Ext Time (p_c), s	0.0	0.0		0.3		10.5
Intersection Summary						
HCM 6th Ctrl Delay			61.1			
HCM 6th LOS			E			
Neteo			-			

# HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

	۶	+	•	•	ł	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u> </u>	<u></u> ↑↑₽		ሻ	ተተኈ			4			4	
Traffic Volume (veh/h)	25	1297	54	55	1762	64	10	7	24	40	4	71
Future Volume (veh/h)	25	1297	54	55	1762	64	10	7	24	40	4	71
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	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	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	1410	59	60	1915	70	11	8	26	43	4	77
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, %	2 201	2 2781	2 116	2 217	2 2798	2 102	2 150	2 122	2 304	2 207	2 41	2 317
Cap, veh/h Arrive On Green	0.55	0.55	0.55	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	218	5026	210	361	5057	185	302	365	0.33 913	459	123	0.33 952
Grp Volume(v), veh/h	210						45	<u> </u>	0		0	
1		955	514 1833	60	1288	697 1837				124 1534		0 0
Grp Sat Flow(s),veh/h/ln	218 5.7	1702 15.7		361 6.7	1702 0.0	0.0	1579 0.0	0 0.0	0	1534	0 0.0	0.0
Q Serve( $g_s$ ), s	5.7 5.7	15.7	15.7 15.7	22.4	0.0	0.0	1.6	0.0	0.0 0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s Prop In Lane	5.7 1.00	10.7	0.11	1.00	0.0	0.10	0.24	0.0	0.58	4.9 0.35	0.0	0.62
Lane Grp Cap(c), veh/h	201	1884	1014	217	1884	1017	576	0	0.58	565	0	0.02
V/C Ratio(X)	0.13	0.51	0.51	0.28	0.68	0.69	0.08	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	201	1884	1014	217	1884	1017	576	0.00	0.00	565	0.00	0.00
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.63	0.63	0.63	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.2	12.5	12.5	3.5	0.0	0.0	20.5	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.9	1.7	2.0	1.3	2.4	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	0.6	8.1	8.9	0.6	0.6	1.2	1.2	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	13.4	14.1	5.5	1.3	2.4	20.8	0.0	0.0	21.8	0.0	0.0
LnGrp LOS	В	В	В	А	A	А	С	A	A	С	А	A
Approach Vol, veh/h		1496			2045			45			124	
Approach Delay, s/veh		13.6			1.8			20.8			21.8	
Approach LOS		В			A			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Max Q Clear Time $(q_c+11)$ , s		24.4		6.9		17.7		3.6				
Green Ext Time (p_c), s		22.2		0.7		23.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			A									

Notes

# HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{F}$	4	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u>ተተ</u> ኑ		ሻ	<u>ተተ</u> ኑ		<u>٦</u>		77	ሻ		1
Traffic Volume (veh/h)	32	1108	183	431	1515	31	163	0	387	186	0	312
Future Volume (veh/h)	32	1108	183	431	1515	31	163	0	387	186	0	312
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	35	1204	199	468	1647	34	177	0	421	202	0	339
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	0	2	2	0	2
Cap, veh/h	58	2015	333	475	3557	73	236	0	0	236	0	0
Arrive On Green	0.01	0.15	0.15	0.27	0.69	0.69	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	4414	729	1781	5149	106	1781	177		1781	202	
Grp Volume(v), veh/h	35	929	474	468	1089	592	177	50.2		202	63.4	
Grp Sat Flow(s),veh/h/ln	1781	1702	1739	1781	1702	1851	1781	D		1781	E	
Q Serve(g_s), s	1.8	22.9	22.9	23.5	13.1	13.1	8.6			10.0		
Cycle Q Clear(g_c), s	1.8	22.9	22.9	23.5	13.1	13.1	8.6			10.0		
Prop In Lane	1.00		0.42	1.00		0.06	1.00			1.00		
Lane Grp Cap(c), veh/h	58	1554	794	475	2352	1279	236			236		
V/C Ratio(X)	0.61	0.60	0.60	0.99	0.46	0.46	0.75			0.86		
Avail Cap(c_a), veh/h	119	1554	794	475	2352	1279	236			238		
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	43.9	30.5	30.5	32.8	6.3	6.3	37.6			38.2		
Incr Delay (d2), s/veh	8.3	1.4	2.8	37.3	0.7	1.2	12.6			25.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(85%),veh/In	1.6	13.8	14.4	18.7	6.2	6.9	6.7			8.5		
Unsig. Movement Delay, s/veh		01.0	22.2	70.1	7.0	7 5	50.0			() (		_
LnGrp Delay(d),s/veh	52.3	31.9	33.3	70.1	7.0	7.5	50.2			63.4		
LnGrp LOS	D	<u>C</u>	С	E	<u>A</u>	А	D			E		
Approach Vol, veh/h		1438			2149							
Approach Delay, s/veh		32.9			20.9							
Approach LOS		С			С							
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	6.9	67.2	15.9		28.0	46.1	15.9					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	6.0	* 45	10.0		24.0	* 27	12.0					
Max Q Clear Time (g_c+I1), s	3.8	15.1	10.6		25.5	24.9	12.0					
Green Ext Time (p_c), s	0.0	15.3	0.0		0.0	1.6	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			28.7									
HCM 6th LOS			С									

#### Notes

3.8

### Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ľ	<b>**</b>		ľ	朴朴。			¢			÷		
Traffic Vol, veh/h	70	2288	5	4	2323	7	8	0	8	11	0	72	
Future Vol, veh/h	70	2288	5	4	2323	7	8	0	8	11	0	72	
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	49	-	-	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	76	2487	5	4	2525	8	9	0	9	12	0	78	

Major/Minor	Major1		Ν	/lajor2		١	Ninor1		1	Minor2				
Conflicting Flow All	2533	0	0	2492	0	0	3660	5183	1246	3684	5181	1267		
Stage 1	-	-	-	-	-	-	2642	2642	-	2537	2537	-		
Stage 2	-	-	-	-	-	-	1018	2541	-	1147	2644	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	~ 67	-	-	70	-	-	~ 5	0	142	~ 5	0	137		
Stage 1	-	-	-	-	-	-	13	48	-	15	54	-		
Stage 2	-	-	-	-	-	-	229	54	-	190	48	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	~ 67	-	-	70	-	-	-	0	142	-	0	137		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-		
Stage 1	-	-	-	-	-	-	13	0	-	15	51	-		
Stage 2	-	-	-	-	-	-	93	51	-	-	0	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	7.6			0.1										
HCM LOS							-			-				
Minor Lane/Major Mvr	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)		-	~ 67	-	-	70	-	-	-					
HCM Lane V/C Ratio		-	1.136	-	-	0.062	-	-	-					
HCM Control Delay (s	)	-	257.7	-	-	59.8	-	-	-					
HCM Lane LOS		-	F	-	-	F	-	-	-					
HCM 95th %tile Q(veh	1)	-	5.9	-	-	0.2	-	-	-					
Notes														 
~: Volume exceeds ca	pacity	\$: De	elay exc	eeds 30	)0s	+: Com	putatior	n Not D	efined	*: All	major \	olume in	platoon	

### Intersection

Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	朴朴		٦	1	Y	
Traffic Vol, veh/h	2285	5	26	2259	10	21
Future Vol, veh/h	2285	5	26	2259	10	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	86	-	0	-
Veh in Median Storage	e,# 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	2484	5	28	2455	11	23

Major/Minor N	/lajor1	Ν	/lajor2	]	Minor1				
Conflicting Flow All	0	0	2489	0	3525	1245			
Stage 1	-	-	-	-	2487	-			
Stage 2	-	-	-	-	1038	-			
Critical Hdwy	-	-	5.34	-	5.74	7.14			
Critical Hdwy Stg 1	-	-	-	-	6.64	-			
Critical Hdwy Stg 2	-	-	-	-	6.04	-			
Follow-up Hdwy	-	-	3.12	-	3.82	3.92			
Pot Cap-1 Maneuver	-	-	70	-	13	142			
Stage 1	-	-	-	-	27	-			
Stage 2	-	-	-	-	272	-			
Platoon blocked, %	-	-		-					
Mov Cap-1 Maneuver	-	-	70	-	~ 8	142			
Mov Cap-2 Maneuver	-	-	-	-	23	-			
Stage 1	-	-	-	-	27	-			
Stage 2	-	-	-	-	163	-			
Approach	EB		WB		NB				
HCM Control Delay, s	0		1		152.7				
HCM LOS					F				
Minor Lane/Major Mvm	t NB	SLn1	EBT	EBR	WBL	WBT			
Capacity (veh/h)		53	-	-	70	-			
HCM Lane V/C Ratio	0.	.636	-	-	0.404	-			
HCM Control Delay (s)		52.7	-	-	87.6	-			
HCM Lane LOS		F	-	-	F	-			
HCM 95th %tile Q(veh)		2.5	-	-	1.6	-			
Notes									
~: Volume exceeds cap	acity	\$: De	lay exc	eeds 3	00s	+: Comp	outation Not Defined	*: All major volume in platoon	

### Intersection

Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	7	24	0	0	16
Future Vol, veh/h	0	7	24	0	0	16
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	0	8	26	0	0	17

Major/Minor	Minor1	Ν	/lajor1	Ν	lajor2	
Conflicting Flow All	43	26	0	0	26	0
Stage 1	26	-	-	-	-	-
Stage 2	17	-	-	-	-	-
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	968	1050	-	-	1588	-
Stage 1	997	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	968	1050	-	-	1588	-
Mov Cap-2 Maneuver	968	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Approach	\//D		MD		CD	

Approach	WB	NB	SB	
HCM Control Delay, s	8.5	0	0	
HCM LOS	А			

Minor Lane/Major Mvmt	NBT	NBRV	/BLn1	SBL	SBT
Capacity (veh/h)	-	-	1050	1588	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	А	Α	-
HCM 95th %tile Q(veh)	-	-	0	0	-

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020	0/2020
------------	--------

	۶	-	$\mathbf{r}$	*	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ካካ	<u></u>		ካካ	<u></u>	1	ካካ	<u></u>	1	ካካ	<u></u>	1
Traffic Volume (veh/h)	125	2075	0	188	1369	219	135	713	437	678	635	137
Future Volume (veh/h)	125	2075	0	188	1369	219	135	713	437	678	635	137
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 0 0	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	1070	No	0	1070	No	4070	1070	No	4070	4070	No	4070
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	2255	0	204	1488	238	147	775	475	737	690	149
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	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1745	0	144	1745	753	202	1128	503	461	1394	622
Arrive On Green	0.04	0.34 5274	0.00	0.08	0.68	0.68	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	3456		0	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	136	2255	0	204	1488	238	147	775	475	737	690	149
Grp Sat Flow(s),veh/h/ln	1728	1702	0	1728	1702 24 F	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.7 4.7	41.0 41.0	0.0 0.0	5.0 5.0	26.5	6.5 6.5	5.0 5.0	22.8 22.8	35.0 35.0	16.0	17.6 17.6	7.6 7.6
Cycle Q Clear(g_c), s	4.7	41.0		5.0 1.00	26.5	0.5 1.00	5.0 1.00	ZZ.ð	35.0 1.00	16.0 1.00	17.0	1.00
Prop In Lane Lane Grp Cap(c), veh/h	144	1745	0.00 0	144	1745	753	202	1128	503	461	1394	622
V/C Ratio(X)	0.94	1.29	0.00	1.42	0.85	0.32	0.73	0.69	0.94	1.60	0.49	0.24
Avail Cap(c_a), veh/h	144	1745	0.00	144	1745	753	259	1128	503	461	1394	622
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.90	0.90	0.90	0.11	0.11	0.11	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	39.5	0.00	55.0	16.7	8.8	55.6	35.7	39.9	52.0	27.5	24.4
Incr Delay (d2), s/veh	57.7	136.1	0.0	220.1	5.0	1.0	0.5	0.4	5.4	279.8	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	5.1	52.6	0.0	9.8	9.0	3.4	2.7	11.0	15.5	35.4	10.6	4.8
Unsig. Movement Delay, s/veh		02.0	010	,10	,	0.11	2		1010	0011	1010	
LnGrp Delay(d),s/veh	115.1	175.6	0.0	275.1	21.7	9.8	56.1	36.1	45.3	331.8	28.7	25.4
LnGrp LOS	F	F	A	F	С	A	E	D	D	F	С	С
Approach Vol, veh/h		2391			1930			1397			1576	
Approach Delay, s/veh		172.1			47.0			41.4			170.2	
Approach LOS		F			D			D			F	
Timer - Assigned Phs	1	2	3	1		4	7	8				
ě – – – – – – – – – – – – – – – – – – –	0.0			4 	5	6	20.0					
Phs Duration (G+Y+Rc), s	9.0	46.5 * E E	11.0	53.5	9.0	46.5 * E E	20.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				
Max Green Setting (Gmax), s Max Q Clear Time (g_c+I1), s	5.0	* 41 20 5	9.0 7.0	45.1 19.6	5.0	* 41	16.0	38.1 37.0				
Green Ext Time (p_c), s	6.7 0.0	28.5 11.0	7.0 0.0	19.6 9.7	7.0 0.0	43.0 0.0	18.0 0.0	37.0 0.9				
4 = 7	0.0	11.0	0.0	9.1	0.0	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			113.6									
HCM 6th LOS			F									

#### Notes

MovementEBTEBRWBLWBLNBLNBRLane Configurations $\uparrow \uparrow$ Traffic Volume (veh/h)29234161611587171207Future Volume (veh/h)29234161611587171207Initial Q (Ob), veh0000000Ped-Bike Adj(A_pbT)1.001.001.001.001.001.00Parking Bus, Adj1.001.001.001.001.001.00Work Zone On ApproachNoNoNoNoAdj Sat Flow, veh/h/In18701870187018701870Adj Flow Rate, veh/h31774521751725186225Peak Hour Factor0.920.920.920.920.920.920.92Percent Heavy Veh, %2222222Cap, veh/h365112807564989320258Arrive On Green0.710.710.220.980.090.09Sat Flow, veh/h556.39.25.01.46.29.6Oycle Q Clear(g_c), s56.39.25.01.46.29.6Orpo ln Lane1.001.001.001.001.001.00Loc Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.00 </th
Lane Configurations         Image: Configuration in the image: Configuratine in the image: Configuration in the image: Configuration in th
Traffic Volume (veh/h)29234161611587171207Future Volume (veh/h)29234161611587171207Initial Q (Qb), veh000000Ped-Bike Adj(A_pbT)1.001.001.001.001.00Parking Bus, Adj1.001.001.001.001.00Parking Bus, Adj1.001.001.001.001.00Adj Sat Flow, veh/h/In1870187018701870Adj Flow Rate, veh/h31774521751725186Adj Flow Rate, veh/h365112807564989320258Arrive On Green0.710.710.220.920.920.92Sat Flow, veh/h527415853456527434562790Grp Volume(v), veh/h31774521751725186225Grp Sat Flow, (s), veh/h/In170215851728170217281395Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.001.00Lane1.001.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.310.310.31Uniform Delay (d), s/veh13.23.238.60.254.6
Future Volume (veh/h)29234161611587171207Initial Q (Qb), veh000000Ped-Bike Adj(A_pbT)1.001.001.001.001.00Parking Bus, Adj1.001.001.001.001.00Work Zone On ApproachNoNoNoNoAdj Sat Flow, veh/h/ln1870187018701870Adj Flow Rate, veh/h31774521751725186Peak Hour Factor0.920.920.920.920.92Percent Heavy Veh, %22222Cap, veh/h365112807564989320258Arrive On Green0.710.710.220.980.090.99Sat Flow, veh/h527415853456527434562790Grp Volume(v), veh/h31774521751725186225Grp Sat Flow(s), veh/h/In170215851728170217281395Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h36511280 </td
Initial Q (Qb), veh         0         0         0         0         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00         1.00         1.00         1.00         1.00           Parking Bus, Adj         1.00         1.00         1.00         1.00         1.00         1.00           Work Zone On Approach         No         No         No         No           Adj Sat Flow, veh/h/In         1870         1870         1870         1870         1870           Adj Flow Rate, veh/h         3177         452         175         1725         186         225           Peak Hour Factor         0.92         0.92         0.92         0.92         0.92         0.92           Percent Heavy Veh, %         2
Ped-Bike Adj(A_pbT)         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           Work Zone On Approach         No         No         No         No         No           Adj Sat Flow, veh/h/ln         1870         1870         1870         1870         1870         1870           Adj Flow Rate, veh/h         3177         452         175         1725         186         225           Peak Hour Factor         0.92         0.92         0.92         0.92         0.92         0.92           Percent Heavy Veh,%         2
Parking Bus, Adj         1.00         1.00         1.00         1.00         1.00         1.00         1.00           Work Zone On Approach         No         No         No         No         No           Adj Sat Flow, veh/h/In         1870         1870         1870         1870         1870         1870         1870           Adj Flow Rate, veh/h         3177         452         175         1725         186         225           Peak Hour Factor         0.92         0.92         0.92         0.92         0.92         0.92           Percent Heavy Veh, %         2
Work Zone On Approach         No         No         No           Adj Sat Flow, veh/h/ln         1870
Adj Sat Flow, veh/h/ln       1870       1870       1870       1870       1870       1870         Adj Flow Rate, veh/h       3177       452       175       1725       186       225         Peak Hour Factor       0.92       0.92       0.92       0.92       0.92       0.92       0.92         Percent Heavy Veh, %       2
Adj Flow Rate, veh/h31774521751725186225Peak Hour Factor0.920.920.920.920.920.920.92Percent Heavy Veh, %222222Cap, veh/h365112807564989320258Arrive On Green0.710.710.220.980.090.09Sat Flow, veh/h527415853456527434562790Grp Volume(v), veh/h31774521751725186225Grp Sat Flow(s), veh/h/In170215851728170217281395Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h365112807564989320258HCM Platoon Ratio1.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.13.89.2Unsig, Movement Delay, s/veh13.23.238.60.254.665.9LnGrp Delay(d), s/veh13.2<
Peak Hour Factor $0.92$ $0.92$ $0.92$ $0.92$ $0.92$ $0.92$ Percent Heavy Veh, %222222Cap, veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ Arrive On Green $0.71$ $0.71$ $0.22$ $0.98$ $0.09$ $0.09$ Sat Flow, veh/h $5274$ $1585$ $3456$ $5274$ $3456$ $2790$ Grp Volume(v), veh/h $3177$ $452$ $175$ $1725$ $186$ $225$ Grp Sat Flow(s), veh/h/In $1702$ $1585$ $1728$ $1702$ $1728$ $1395$ Q Serve(g_s), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Cycle Q Clear(g_c), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Prop In Lane $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X) $0.87$ $0.35$ $0.23$ $0.35$ $0.58$ $0.87$ Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Upstream Filter(I) $0.09$ $0.99$ $0.89$ $0.31$ $0.31$ Uniform Delay (d), s/veh $12.9$ $3.1$ $38.6$ $0.1$ $3.8$ HCM Platoon Ratio $10.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ Uniform Delay
Percent Heavy Veh, %222222Cap, veh/h $3651$ 12807564989 $320$ 258Arrive On Green0.710.710.220.980.090.09Sat Flow, veh/h $5274$ 1585 $3456$ $5274$ $3456$ 2790Grp Volume(v), veh/h $3177$ $452$ 1751725186225Grp Sat Flow(s), veh/h/ln170215851728170217281395Q Serve(g_s), s $56.3$ 9.2 $5.0$ 1.4 $6.2$ 9.6Cycle Q Clear(g_c), s $56.3$ 9.2 $5.0$ 1.4 $6.2$ 9.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h $3651$ 1280 $756$ 4989 $320$ 258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h $3651$ 1280 $756$ 4989 $320$ 258HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.310.310.31Uniform Delay (d), s/veh0.30.10.10.22.412.2Inital Q Delay(d3), s/veh0.00.00.00.00.0Wile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9
Cap, veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ Arrive On Green $0.71$ $0.71$ $0.22$ $0.98$ $0.09$ $0.09$ Sat Flow, veh/h $5274$ $1585$ $3456$ $5274$ $3456$ $2790$ Grp Volume(v), veh/h $3177$ $452$ $175$ $1725$ $186$ $225$ Grp Sat Flow(s), veh/h/ln $1702$ $1585$ $1728$ $1702$ $1728$ $1395$ Q Serve(g_s), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Cycle Q Clear(g_c), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Prop In Lane $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X) $0.87$ $0.35$ $0.23$ $0.35$ $0.58$ $0.87$ Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Unstream Filter(1) $0.09$ $0.99$ $0.89$ $0.31$ $0.31$ Uniform Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ $12.2$ Initial Q Delay(d3), s/veh $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ Junsig. Movement Delay, s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp Delay(d), s/veh $13.2$ $3.2$ $38.6$ $0.2$
Arrive On Green $0.71$ $0.71$ $0.22$ $0.98$ $0.09$ $0.09$ Sat Flow, veh/h $5274$ $1585$ $3456$ $5274$ $3456$ $2790$ Grp Volume(v), veh/h $3177$ $452$ $175$ $1725$ $186$ $225$ Grp Sat Flow(s), veh/h/ln $1702$ $1585$ $1728$ $1702$ $1728$ $1395$ Q Serve(g_s), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Cycle Q Clear(g_c), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Prop In Lane $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X) $0.87$ $0.35$ $0.23$ $0.35$ $0.58$ $0.87$ Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Upstream Filter(I) $0.09$ $0.99$ $0.89$ $0.89$ $0.31$ $0.31$ Uniform Delay (d), s/veh $12.9$ $3.1$ $38.6$ $0.0$ $52.2$ $53.7$ Incr Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ $12.2$ Initial Q Delay(d3), s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp Delay (d), s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp LOSBADE<
Sat Flow, veh/h527415853456527434562790Grp Volume(v), veh/h31774521751725186225Grp Sat Flow(s), veh/h/ln170215851728170217281395Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h365112807564989320258HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3), s/veh0.00.00.00.00.0%ile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh11.93.860.8AEApproach LOSBADEAETimer - Assigned Phs2456Phs Duration (G+Y+Rc), s122.617.031.691.0
Grp Volume(v), veh/h $3177$ $452$ $175$ $1725$ $186$ $225$ Grp Sat Flow(s),veh/h/ln $1702$ $1585$ $1728$ $1702$ $1728$ $1395$ Q Serve(g_s), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Cycle Q Clear(g_c), s $56.3$ $9.2$ $5.0$ $1.4$ $6.2$ $9.6$ Prop In Lane $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X) $0.87$ $0.35$ $0.23$ $0.35$ $0.58$ $0.87$ Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Upstream Filter(I) $0.09$ $0.99$ $0.89$ $0.31$ $0.31$ Uniform Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ Intial Q Delay(d3), s/veh $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ %ile BackOfQ(85%), veh/ln $19.9$ $4.8$ $3.6$ $0.1$ $3.8$ $9.2$ Unsig. Movement Delay, s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp LOSBADEApproach Vol, veh/h $3629$ $1900$ $411$ Approach LOSBAE $E$ $17.0$ $31.6$ $91.0$
Grp Sat Flow(s),veh/h/in170215851728170217281395Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h365112807564989320258HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3), s/veh0.00.00.00.00.0%ile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9LnGrp LOSBADEADEApproach Vol, veh/h362919004114pproach Delay, s/veh11.93.860.8Approach LOSBAEEF6Phs Duration (G+Y+Rc), s122.617.031.691.0
Q Serve(g_s), s56.39.25.01.46.29.6Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h365112807564989320258HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3), s/veh0.00.00.00.00.0%ile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9LnGrp LOSBADEEApproach Vol, veh/h362919004114pproach Delay, s/veh11.93.860.8Approach LOSBAEEEEETimer - Assigned Phs2456PhsD1.031.691.0
Cycle Q Clear(g_c), s56.39.25.01.46.29.6Prop In Lane1.001.001.001.001.00Lane Grp Cap(c), veh/h365112807564989320258V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h365112807564989320258HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3),s/veh0.00.00.00.00.0%ile BackOfQ(85%),veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9LnGrp LOSBADADEApproach Vol, veh/h362919004114pproach Delay, s/veh11.93.860.8Approach LOSBAEE110041091.0
Prop In Lane1.001.001.001.00Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X)0.870.350.230.350.580.87Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.1 $38.6$ 0.0 $52.2$ $53.7$ Incr Delay (d2), s/veh0.30.10.10.22.4 $12.2$ Initial Q Delay(d3), s/veh0.00.00.00.00.0%ile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/vehUnsig.Novement Delay, s/veh $Veh/h$ $3629$ 1900411Approach Vol, veh/h $3629$ 1900411Approach Delay, s/veh $A$ ETimer - Assigned Phs2456Phs Duration (G+Y+Rc), s122.617.031.691.0
Lane Grp Cap(c), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ V/C Ratio(X) $0.87$ $0.35$ $0.23$ $0.35$ $0.58$ $0.87$ Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Upstream Filter(I) $0.09$ $0.09$ $0.89$ $0.89$ $0.31$ $0.31$ Uniform Delay (d), s/veh $12.9$ $3.1$ $38.6$ $0.0$ $52.2$ $53.7$ Incr Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ $12.2$ Initial Q Delay(d3), s/veh $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ %ile BackOfQ(85%), veh/ln $19.9$ $4.8$ $3.6$ $0.1$ $3.8$ $9.2$ Unsig. Movement Delay, s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp Delay(d), s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp LOSBADEApproach Vol, veh/h $3629$ $1900$ $411$ Approach Delay, s/veh $11.9$ $3.8$ $60.8$ Approach LOSBAETimer - Assigned Phs $2$ $4$ $5$ $6$ Phs Duration (G+Y+Rc), s $122.6$ $17.0$ $31.6$ $91.0$
V/C Ratio(X)       0.87       0.35       0.23       0.35       0.58       0.87         Avail Cap(c_a), veh/h       3651       1280       756       4989       320       258         HCM Platoon Ratio       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Upstream Filter(I)       0.09       0.09       0.89       0.89       0.31       0.31         Uniform Delay (d), s/veh       12.9       3.1       38.6       0.0       52.2       53.7         Incr Delay (d2), s/veh       0.3       0.1       0.1       0.2       2.4       12.2         Initial Q Delay(d3),s/veh       0.0       0.0       0.0       0.0       0.0       0.0         %ile BackOfQ(85%),veh/ln       19.9       4.8       3.6       0.1       3.8       9.2         Unsig. Movement Delay, s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411       40.8       40.8       40.8         Approach LOS       B       A       E       5       6
Avail Cap(c_a), veh/h $3651$ $1280$ $756$ $4989$ $320$ $258$ HCM Platoon Ratio $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ $1.00$ Upstream Filter(I) $0.09$ $0.09$ $0.89$ $0.89$ $0.31$ $0.31$ Uniform Delay (d), s/veh $12.9$ $3.1$ $38.6$ $0.0$ $52.2$ $53.7$ Incr Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ $12.2$ Initial Q Delay(d3), s/veh $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ % ile BackOfQ(85%), veh/ln $19.9$ $4.8$ $3.6$ $0.1$ $3.8$ $9.2$ Unsig. Movement Delay, s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp Delay(d), s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp LOSBADADEApproach Vol, veh/h $3629$ $1900$ $411$ Approach Delay, s/veh $11.9$ $3.8$ $60.8$ Approach LOSBAETimer - Assigned Phs $2$ $4$ $5$ $6$ Phs Duration (G+Y+Rc), s $122.6$ $17.0$ $31.6$ $91.0$
HCM Platon Ratio1.001.001.001.001.001.00Upstream Filter(I)0.090.090.890.890.310.31Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3), s/veh0.00.00.00.00.0% ile BackOfQ(85%), veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9LnGrp Delay(d), s/veh13.23.238.60.254.665.9LnGrp LOSBADEApproach Vol, veh/h36291900411Approach Delay, s/veh11.93.860.8Approach LOSBAETimer - Assigned Phs2456Phs Duration (G+Y+Rc), s122.617.031.691.0
Upstream Filter(I) $0.09$ $0.09$ $0.89$ $0.89$ $0.31$ $0.31$ Uniform Delay (d), s/veh $12.9$ $3.1$ $38.6$ $0.0$ $52.2$ $53.7$ Incr Delay (d2), s/veh $0.3$ $0.1$ $0.1$ $0.2$ $2.4$ $12.2$ Initial Q Delay(d3),s/veh $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ % ile BackOfQ(85%),veh/ln $19.9$ $4.8$ $3.6$ $0.1$ $3.8$ $9.2$ Unsig. Movement Delay, s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp Delay(d),s/veh $13.2$ $3.2$ $38.6$ $0.2$ $54.6$ $65.9$ LnGrp LOSBADEApproach Vol, veh/h $3629$ $1900$ $411$ Approach Delay, s/veh $11.9$ $3.8$ $60.8$ Approach LOSBAETimer - Assigned Phs $2$ $4$ $5$ $6$ Phs Duration (G+Y+Rc), s $122.6$ $17.0$ $31.6$ $91.0$
Uniform Delay (d), s/veh12.93.138.60.052.253.7Incr Delay (d2), s/veh0.30.10.10.22.412.2Initial Q Delay(d3),s/veh0.00.00.00.00.0% ile BackOfQ(85%),veh/ln19.94.83.60.13.89.2Unsig. Movement Delay, s/veh13.23.238.60.254.665.9LnGrp Delay(d),s/veh13.23.238.60.254.665.9LnGrp LOSBADADEApproach Vol, veh/h36291900411411Approach Delay, s/veh11.93.860.860.8Approach LOSBAEETimer - Assigned Phs2456Phs Duration (G+Y+Rc), s122.617.031.691.0
Incr Delay (d2), s/veh       0.3       0.1       0.1       0.2       2.4       12.2         Initial Q Delay(d3),s/veh       0.0       0.0       0.0       0.0       0.0       0.0         % ile BackOfQ(85%),veh/ln       19.9       4.8       3.6       0.1       3.8       9.2         Unsig. Movement Delay, s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp Delay(d),s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411         Approach Delay, s/veh       11.9       3.8       60.8         Approach LOS       B       A       E         Timer - Assigned Phs       2       4       5       6         Phs Duration (G+Y+Rc), s       122.6       17.0       31.6       91.0
Initial Q Delay(d3),s/veh       0.0       0.0       0.0       0.0       0.0         %ile BackOfQ(85%),veh/ln       19.9       4.8       3.6       0.1       3.8       9.2         Unsig. Movement Delay, s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp Delay(d),s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411         Approach Delay, s/veh       11.9       3.8       60.8         Approach LOS       B       A       E         Timer - Assigned Phs       2       4       5       6         Phs Duration (G+Y+Rc), s       122.6       17.0       31.6       91.0
%ile BackOfQ(85%),veh/ln       19.9       4.8       3.6       0.1       3.8       9.2         Unsig. Movement Delay, s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp Delay(d),s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411         Approach Delay, s/veh       11.9       3.8       60.8         Approach LOS       B       A       E         Timer - Assigned Phs       2       4       5       6         Phs Duration (G+Y+Rc), s       122.6       17.0       31.6       91.0
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411         Approach Delay, s/veh       11.9       3.8       60.8         Approach LOS       B       A       E         Timer - Assigned Phs       2       4       5       6         Phs Duration (G+Y+Rc), s       122.6       17.0       31.6       91.0
LnGrp Delay(d),s/veh       13.2       3.2       38.6       0.2       54.6       65.9         LnGrp LOS       B       A       D       A       D       E         Approach Vol, veh/h       3629       1900       411         Approach Delay, s/veh       11.9       3.8       60.8         Approach LOS       B       A       E         Timer - Assigned Phs       2       4       5       6         Phs Duration (G+Y+Rc), s       122.6       17.0       31.6       91.0
LnGrp LOS         B         A         D         A         D         E           Approach Vol, veh/h         3629         1900         411         <
Approach Vol, veh/h         3629         1900         411           Approach Delay, s/veh         11.9         3.8         60.8           Approach LOS         B         A         E           Timer - Assigned Phs         2         4         5         6           Phs Duration (G+Y+Rc), s         122.6         17.0         31.6         91.0
Approach Delay, s/veh         11.9         3.8         60.8           Approach LOS         B         A         E           Timer - Assigned Phs         2         4         5         6           Phs Duration (G+Y+Rc), s         122.6         17.0         31.6         91.0
Approach LOS         B         A         E           Timer - Assigned Phs         2         4         5         6           Phs Duration (G+Y+Rc), s         122.6         17.0         31.6         91.0
Timer - Assigned Phs         2         4         5         6           Phs Duration (G+Y+Rc), s         122.6         17.0         31.6         91.0
Phs Duration (G+Y+Rc), s 122.6 17.0 31.6 91.0
Max Green Setting (Gmax), s * 98 11.1 * 8 * 86
Max Q Clear Time (q_c+11), s 3.4 11.6 7.0 58.3
Green Ext Time (p_c), s 31.8 0.0 0.0 27.1
Intersection Summary
HCM 6th Ctrl Delay 12.7
HCM 6th LOS B

Notes

# HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{\hat{z}}$	•	-	*	1	٦	۲	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	۳	1111	1	ካካ	ተተተ		ኘኘኘ		77			
Traffic Volume (veh/h)	26	2135	953	817	1381	0	333	0	493	0	0	
Future Volume (veh/h)	26	2135	953	817	1381	0	333	0	493	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	28	2321	1036	888	1501	0	362	362	536			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	45	2322	755	1225	3617	0	580	580	1311			
Arrive On Green	0.01	0.12	0.12	0.35	0.71	0.00	0.12	0.12	0.12			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	28	2321	1036	888	1501	0	362	362	536			
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	1.9	43.3	43.3	26.8	14.6	0.0	8.2	8.2	0.0			
Cycle Q Clear(g_c), s	1.9	43.3	43.3	26.8	14.6	0.0	8.2	8.2	0.0			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	45	2322	755	1225	3617	0	580	580	1311			
V/C Ratio(X)	0.62	1.00	1.37	0.72	0.41	0.00	0.62	0.62	0.41			
Avail Cap(c_a), veh/h	92	2322	755	1225	3617	0	1218	1218	1666			
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	58.9	52.8	38.3	33.6	7.2	0.0	50.6	50.6	20.9			
Incr Delay (d2), s/veh	5.5	11.8	171.0	2.2	0.4	0.0	1.1	1.1	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/In	1.6	23.6	79.1	15.0	7.3	0.0	5.5	5.5	12.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	64.6	209.3	35.8	7.6	0.0	51.7	51.7	21.1			
LnGrp LOS	E	E	F	D	А	А	D	D	С			
Approach Vol, veh/h		3385			2389		898	898				
Approach Delay, s/veh		108.9			18.1		33.4	33.4				
Approach LOS		F			В		С	С				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	7.5	91.7		20.8	49.2	50.0						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	6.2	* 67		29.1	* 28	* 43						
Max Q Clear Time $(g_c+11)$ , s	3.9	16.6		10.2	28.8	45.3						
Green Ext Time (p_c), s	0.0	31.0		3.6	0.0	0.0						
Intersection Summary												
HCM 6th Ctrl Delay			66.2									
HCM 6th LOS			E									
			-									

Notes

# HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

08/10/2020	0/2020
------------	--------

	۶	-	$\mathbf{r}$	4	-	•	1	1	۴	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u>ተተ</u> ጮ		<u>۲</u>	***	1	<u>۲</u>	- <b>††</b>	1	ሻ	<b>^</b>	1
Traffic Volume (veh/h)	326	2415	87	40	1699	100	240	847	230	239	392	313
Future Volume (veh/h)	326	2415	87	40	1699	100	240	847	230	239	392	313
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	354	2625	95	43	1847	109	261	921	250	260	426	340
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	219	1890	68	179	1794	557	332	1030	547	238	1109	618
Arrive On Green	0.08	0.37	0.37	0.06	0.35	0.35	0.06	0.29	0.29	0.08	0.31	0.31
Sat Flow, veh/h	1781	5060	182	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	354	1758	962	43	1847	109	261	921	250	260	426	340
Grp Sat Flow(s),veh/h/ln	1781	1702	1838	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.0	33.6	33.6	1.3	31.6	4.3	5.0	22.4	11.0	7.0	8.4	15.0
Cycle Q Clear(g_c), s	7.0	33.6	33.6	1.3	31.6	4.3	5.0	22.4	11.0	7.0	8.4	15.0
Prop In Lane	1.00		0.10	1.00	.=	1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	1272	686	179	1794	557	332	1030	547	238	1109	618
V/C Ratio(X)	1.62	1.38	1.40	0.24	1.03	0.20	0.79	0.89	0.46	1.09	0.38	0.55
Avail Cap(c_a), veh/h	219	1272	686	179	1794	557	332	1066	564	238	1145	634
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	0.09	0.09	0.09	0.62	0.62	0.62
Uniform Delay (d), s/veh	22.7	28.2	28.2	21.8	29.2	20.3	28.4	30.6	22.9	27.7	24.2	21.3
Incr Delay (d2), s/veh	299.0	177.2	189.2	0.7	29.2	0.8	1.2	1.0	0.1	72.5	0.1	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(85%),veh/In	29.6	61.5	69.5	1.0	21.9	3.0	3.6	10.4	4.6	9.0	5.0	7.4
Unsig. Movement Delay, s/veh		205 4	217.4	<u> 11 г</u>	F0 4	01.1	20 /	21 7	22.0	100.2	24.2	21.0
LnGrp Delay(d),s/veh	321.7	205.4		22.5	58.4	21.1	29.6	31.7	23.0		24.3	21.9
LnGrp LOS	F	F	F	С	F	С	С	C	С	F	C	<u> </u>
Approach Vol, veh/h		3074			1999			1432			1026	
Approach Delay, s/veh		222.6			55.6			29.8			42.8	
Approach LOS		F			E			С			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	36.7	9.0	33.3	9.0	38.7	11.0	31.3				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	7.0	* 31	5.0	* 29	5.0	* 33	7.0	* 27				
Max Q Clear Time (g_c+I1), s	9.0	33.6	7.0	17.0	3.3	35.6	9.0	24.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			117.1									
HCM 6th LOS			F									

Notes

	≯	+	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘካ	<b>^</b>	<b>^</b>	1	<u>ካ</u> ካ	11
Traffic Volume (veh/h)	664	2559	1870	275	86	119
Future Volume (veh/h)	664	2559	1870	275	86	119
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	U	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	722	2782	2033	299	93	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	653	3086	1895	588	960	1302
Arrive On Green	003	1.00	0.37	0.37	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	722	2782	2033	299	93	129
Grp Sat Flow(s),veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve(g_s), s	17.0	0.0	33.4	13.2	1.8	2.3
Cycle Q Clear(g_c), s	17.0	0.0	33.4	13.2	1.8	2.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	653	3086	1895	588	960	1302
V/C Ratio(X)	1.11	0.90	1.07	0.51	0.10	0.10
Avail Cap(c_a), veh/h	653	3086	1895	588	960	1302
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.89	0.89
Uniform Delay (d), s/veh	28.0	0.0	28.3	21.9	24.1	13.4
Incr Delay (d2), s/veh	67.9	4.8	43.4	3.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	15.5	2.5	26.4	7.6	1.3	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	95.9	4.8	71.7	25.1	24.3	13.6
LnGrp LOS	F	A	F	С	С	В
Approach Vol, veh/h	· ·	3504	2332	<u> </u>	222	
Approach Delay, s/veh		23.6	65.7		18.1	
Approach LOS		23.0 C	65.7 E		B	
			L			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	21.0	39.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	17.0	* 33
Max Q Clear Time (g_c+I1), s		2.0		4.3	19.0	35.4
Green Ext Time (p_c), s		43.1		0.7	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			39.6			
HCM 6th LOS			D			

	≯	-	+	×	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u> </u>	<b>†</b> ††	<b>†</b> Ъ		ኘ	1
Traffic Volume (veh/h)	715	2185	1063	351	236	223
Future Volume (veh/h)	715	2185	1063	351	236	223
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	777	2375	1155	382	257	242
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	505	3821	1124	365	486	672
Arrive On Green	0.28	0.75	0.29	0.29	0.14	0.14
Sat Flow, veh/h	1781	5274	2731	856	3456	1585
Grp Volume(v), veh/h	777	2375	771	766	257	242
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1716	1728	1585
Q Serve(g_s), s	25.5	19.7	38.3	38.3	6.2	9.3
Cycle Q Clear(g_c), s	25.5	19.7	38.3	38.3	6.2	9.3
Prop In Lane	1.00			0.50	1.00	1.00
Lane Grp Cap(c), veh/h	505	3821	757	731	486	672
V/C Ratio(X)	1.54	0.62	1.02	1.05	0.53	0.36
Avail Cap(c_a), veh/h	505	3821	757	731	806	819
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.43	0.43	0.94	0.94
Uniform Delay (d), s/veh	32.3	5.3	32.2	32.2	35.9	17.6
Incr Delay (d2), s/veh	252.6	0.8	26.2	35.4	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	65.2	7.7	26.0	27.8	4.3	12.7
Unsig. Movement Delay, s/veh		1.1	20.0	27.0	1.0	12.7
LnGrp Delay(d),s/veh	284.8	6.1	58.3	67.6	36.8	17.9
LnGrp LOS	204.0 F	A	50.5 F	67.6 F	D	B
Approach Vol, veh/h	•	3152	1537		499	
Approach Delay, s/veh		74.8	62.9		27.6	
Approach LOS		74.0 E	02.9 E		27.0 C	
	1		L	Δ	U	
Timer - Assigned Phs	20.0	2		4		6
Phs Duration (G+Y+Rc), s	29.0	43.3		17.7		72.3
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	25.5	* 30		* 21		* 59
Max Q Clear Time (g_c+l1), s		40.3		11.3		21.7
Green Ext Time (p_c), s	0.0	0.0		1.3		28.0
Intersection Summary						
HCM 6th Ctrl Delay			66.7			
HCM 6th LOS			E			
Notoo						

# HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

	۶	-	$\mathbf{F}$	•	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<u> ተተ</u> ጮ		<u> </u>	<b>∱</b> ⊅			4			<b>.</b>	
Traffic Volume (veh/h)	67	2228	21	15	1424	82	9	2	11	36	1	97
Future Volume (veh/h)	67	2228	21	15	1424	82	9	2	11	36	1	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 0 0	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	1070	No	1070	4070	No	4070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	2422	23	16	1548	89	10	2	12	39	1	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, %	2 135	2 2886	2 27	2 103	2 1890	2 108	2 246	2 65	2 254	2 163	2 30	2 375
Cap, veh/h Arrive On Green	0.55	2886	0.55	0.55	0.55	0.55	0.33	00 0.33	254 0.33	0.33	0.33	0.33
Sat Flow, veh/h	0.55 307	0.55 5216	0.55 49	139	3416	196	568	0.33 194	762	338	0.33 91	1125
Grp Volume(v), veh/h	73	1579 1702	866	16	802	835	24 1523	0	0	145 1554	0	0
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s	307 16.2	34.8	1861 34.9	139 9.8	1777 33.0	1835 33.6	0.0	0 0.0	0.0	0.4	0 0.0	0.0
Cycle Q Clear(g_c), s	49.8	34.8 34.8	34.9 34.9	9.8 44.7	33.0	33.6	0.0	0.0	0.0	0.4 5.8	0.0	0.0
Prop In Lane	49.0 1.00	34.0	0.03	44.7	33.0	0.11	0.9	0.0	0.50	0.27	0.0	0.0
Lane Grp Cap(c), veh/h	135	1884	1030	100	983	1015	564	0	0.50	569	0	0.72
V/C Ratio(X)	0.54	0.84	0.84	0.16	0.82	0.82	0.04	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	135	1884	1030	103	983	1015	564	0.00	0.00	569	0.00	0.00
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.50	0.50	0.50	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.9	16.7	16.8	35.5	16.4	16.5	20.3	0.0	0.0	21.9	0.0	0.0
Incr Delay (d2), s/veh	11.1	3.5	6.3	1.6	3.9	3.9	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	3.3	16.4	18.7	0.7	15.8	16.5	0.6	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	20.3	23.1	37.1	20.2	20.4	20.4	0.0	0.0	22.2	0.0	0.0
LnGrp LOS	D	С	С	D	С	С	С	А	А	С	А	А
Approach Vol, veh/h		2518			1653			24			145	
Approach Delay, s/veh		22.1			20.5			20.4			22.2	
Approach LOS		С			С			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s		46.7		7.8		51.8		2.9				
Green Ext Time (p_c), s		2.9		0.8		0.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			С									

Notes

# HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{r}$	1	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u></u> ↑↑₽		- ሻ	<u></u> ↑↑₽		ሻ		11	ሻ		1
Traffic Volume (veh/h)	318	1783	154	258	1081	354	259	0	1329	34	0	43
Future Volume (veh/h)	318	1783	154	258	1081	354	259	0	1329	34	0	43
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	346	1938	167	280	1175	385	282	0	1445	37	0	47
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	0	2	2	0	2
Cap, veh/h	378	2746	235	315	2047	670	231	0	0	231	0	0
Arrive On Green	0.21	0.57	0.57	0.18	0.54	0.54	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	4790	410	1781	3804	1246	1781	282		1781	37	
Grp Volume(v), veh/h	346	1374	731	280	1051	509	282	179.0		37	42.1	_
Grp Sat Flow(s),veh/h/ln	1781	1702	1796	1781	1702	1646	1781	F		1781	D	
Q Serve(g_s), s	20.5	31.2	31.6	16.6	22.3	22.3	14.0			2.0		_
Cycle Q Clear(g_c), s	20.5	31.2	31.6	16.6	22.3	22.3	14.0			2.0		
Prop In Lane	1.00	1050	0.23	1.00	1001	0.76	1.00			1.00		
Lane Grp Cap(c), veh/h	378	1952	1030	315	1831	886	231			231		
V/C Ratio(X)	0.92	0.70	0.71	0.89	0.57	0.57	1.22			0.16		
Avail Cap(c_a), veh/h	429	1952	1030	429	1831	886	231			231		
HCM Platoon Ratio	1.00 0.37	1.00 0.37	1.00 0.37	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00			1.00 1.00		
Upstream Filter(I)				43.4	16.7	16.7	47.0			41.8		
Uniform Delay (d), s/veh Incr Delay (d2), s/veh	41.6 10.5	16.5 0.8	16.6 1.6	43.4	10.7	2.7	47.0			41.8 0.3		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.3		
%ile BackOfQ(85%),veh/ln	12.0	13.8	14.9	11.7	11.7	11.8	20.2			1.6		
Unsig. Movement Delay, s/veh		13.0	14.7	11.7	11.7	11.0	20.2			1.0		
LnGrp Delay(d), s/veh	52.1	17.3	18.1	59.4	18.0	19.4	179.0			42.1		
LIGIP Delay(d), siven	J2.1	В	B	57.4 E	B	В	F			42.1 D		
Approach Vol, veh/h	D	2451	U	<u> </u>	1840	D				D		
Approach Delay, s/veh		2451			24.7							
Approach LOS		22.J			24.7 C							
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	26.9	63.1	18.0		23.1	66.9	18.0					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	26.0	* 37	14.0		26.0	* 37	14.0					
Max Q Clear Time (g_c+l1), s	22.5	24.3	16.0		18.6	33.6	4.0					
Green Ext Time (p_c), s	0.4	8.3	0.0		0.5	3.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			33.1									
HCM 6th LOS			С									
• • •												

Notes

Intersection													
Int Delay, s/veh	16.6												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	- ሽ	朴朴。		- ሽ	朴朴序			- 🗘			- 🗘		
Traffic Vol, veh/h	55	1939	14	22	1948	19	4	1	16	9	0	47	
Future Vol, veh/h	55	1939	14	22	1948	19	4	1	16	9	0	47	
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										
Storage Length	49	-	-	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	60	2108	15	24	2117	21	4	1	17	10	0	51	

Major/Minor	Major1		Ν	/lajor2		١	Ninor1		١	Minor2				
Conflicting Flow All	2138	0	0	2123	0	0	3131	4422	1062	3140	4419	1069		
Stage 1	-	-	-	-	-	-	2236	2236	-	2176	2176	-		
Stage 2	-	-	-	-	-	-	895	2186	-	964	2243	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	106	-	-	108	-	-	12	~ 1	189	12	1	187		
Stage 1	-	-	-	-	-	-	26	78	-	29	84	-		
Stage 2	-	-	-	-	-	-	273	83	-	248	77	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver		-	-	108	-	-	~ 4	0	189	~ 5	0	187		
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	0	-	~ 5	0	-		
Stage 1	-	-	-	-	-	-	11	34	-	13	65	-		
Stage 2	-	-	-	-	-	-	154	65	-	95	33	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	2.1			0.5		\$	608.5		\$	884.2				
HCM LOS							F			F				
Minor Lane/Major Mvr	mt N	IBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		18	106	-	-	108	-	-	27					
HCM Lane V/C Ratio		1.268	0.564	-	-	0.221	-	-	2.254					
HCM Control Delay (s	5) \$	608.5	75.9	-	-	47.6	-	-\$	884.2					
HCM Lane LOS		F	F	-	-	E	-	-	F					
HCM 95th %tile Q(vel	h)	3.2	2.7	-	-	0.8	-	-	7.3					
Notes														
~: Volume exceeds ca	apacity	\$: De	elay exc	eeds 30	)0s	+: Com	putation	n Not D	efined	*: All	major v	volume i	n platoon	

Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ttp:		٦	1	Y	
Traffic Vol, veh/h	1932	4	6	2022	8	12
Future Vol, veh/h	1932	4	6	2022	8	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	86	-	0	-
Veh in Median Storage	e,# 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	2100	4	7	2198	9	13

Naior1	Ν	Naior2		Minor1	
0			0		1052
-	-	-	-	2102	-
-	-	-	-	893	-
-	-	5.34	-	5.74	7.14
-	-	-	-	6.64	-
-	-	-	-	6.04	-
-	-	3.12	-	3.82	3.92
-	-	111	-	26	191
-	-	-	-	49	-
-	-	-	-	326	-
-	-		-		
-	-	111	-	24	191
-	-	-	-	43	-
-	-	-	-		-
-	-	-	-	305	-
EB		WB		NB	
0		0.1		66	
				F	
t N	JRI n1	FRT	FRR	WRI	WBT
					-
					-
		-			-
	- - - - - - - - - - - - - - - - - - -	0 0       	0         0         2104           -         -         -           -         -         -           -         -         5.34           -         -         -           -         -         -           -         -         3.12           -         -         111           -         -         -           -         -         111           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           -         -         -           0         0.1	0       0       2104       0         -       -       -       -         -       -       5.34       -         -       -       5.34       -         -       -       5.34       -         -       -       -       -         -       -       3.12       -         -       -       111       -         -       -       111       -         -       -       111       -         -       -       111       -         -       -       111       -         -       -       111       -         -       -       111       -         -       -       -       -         -       -       111       -         -       -       -       -         -       -       -       -         0       0.1       -       -         tt       NBLn1       EBT       EBR         80       -       -       -         0.272       -       -       -	0         0         2104         0         2995           -         -         -         2102           -         -         -         893           -         -         5.34         -         5.74           -         -         5.34         -         5.74           -         -         5.34         -         5.74           -         -         5.34         -         5.74           -         -         -         6.64           -         -         -         6.04           -         -         3.12         -         3.82           -         -         111         -         26           -         -         111         -         26           -         -         111         -         24           -         -         111         -         24           -         -         -         43           -         -         -         305           EB         WB         NB         0           0         0.1         66           F         -         - <tr tr=""> <tr< td=""></tr<></tr>

HCM Lane LOS F Е ---HCM 95th %tile Q(veh) 0.2 1 -\_ -

### Intersection

Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	0	21	0	0	21
Future Vol, veh/h	0	0	21	0	0	21
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	0	0	23	0	0	23

Major/Minor	Minor1	Ν	Najor1	Ν	/lajor2	
Conflicting Flow All	46	23	0	0	23	0
Stage 1	23	-	-	-	-	-
Stage 2	23	-	-	-	-	-
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	964	1054	-	-	1592	-
Stage 1	1000	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver		1054	-	-	1592	-
Mov Cap-2 Maneuver	964	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1000	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWI	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1592	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	Α	Α	-
HCM 95th %tile Q(veh)	-	-	-	0	-

# HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020	)/2020
------------	--------

	≯	+	*	*	t	*	<	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	ተተተ		ሻሻ	ተተተ	1	ሻሻ	<b>^</b>	1	ሻሻ	<u></u>	1
Traffic Volume (veh/h)	197	1717	0	299	2030	664	118	689	151	385	1021	55
Future Volume (veh/h)	197	1717	0	299	2030	664	118	689	151	385	1021	55
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	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 Adj Sat Flow, veh/h/In	1070	No	0	1070	N0	1870	1870	No	1070	1870	No 1870	1070
Adj Sat Flow, ven/h/m Adj Flow Rate, veh/h	1870 214	1870 1866	0	1870 325	1870 2207	722	1870	1870 749	1870 164	418	1870	1870 60
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	0.72	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1787	0	230	1915	753	144	1128	503	346	1336	596
Arrive On Green	0.04	0.35	0.00	0.09	0.50	0.50	0.04	0.32	0.32	0.10	0.38	0.38
Sat Flow, veh/h	3456	5274	0.00	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	214	1866	0	325	2207	722	128	749	164	418	1110	60
Grp Sat Flow(s), veh/h/ln	1728	1702	0	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.0	42.0	0.0	8.0	45.0	45.0	4.4	21.9	9.5	12.0	34.0	2.9
Cycle Q Clear(g_c), s	5.0	42.0	0.0	8.0	45.0	45.0	4.4	21.9	9.5	12.0	34.0	2.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	1787	0	230	1915	753	144	1128	503	346	1336	596
V/C Ratio(X)	1.49	1.04	0.00	1.41	1.15	0.96	0.89	0.66	0.33	1.21	0.83	0.10
Avail Cap(c_a), veh/h	144	1787	0	230	1915	753	144	1128	503	346	1336	596
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.58	0.58	0.58	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	39.0	0.0	54.7	30.1	25.3	57.2	35.4	31.2	54.0	34.0	24.3
Incr Delay (d2), s/veh	252.0	33.8	0.0	199.3	72.6	16.9	30.6	1.9	1.1	118.3	6.1	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(85%),veh/In	11.0	28.6	0.0	13.6	36.9	25.9	3.8	12.3	5.4	15.4	19.7	2.1
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	309.5	72.8	0.0	253.9	102.6	42.2	87.8	37.3	32.2	172.3	40.1	24.6
LIGIP Delay(d), siven	509.5 F	72.0 F	0.0 A	200.9 F	102.0 F	42.2 D	67.6 F	37.3 D	32.2 C	172.3 F	40.1 D	24.0 C
Approach Vol, veh/h	1	2080			3254	U	1	1041	C	1	1588	
Approach Delay, s/veh		97.2			104.4			42.7			74.3	
Approach LOS		F			F			۲ <u>۲</u> .7			F	
	1		0			,	7				L	
Timer - Assigned Phs	1	2	3	4	5	6	1	8				
Phs Duration (G+Y+Rc), s	9.0	50.5	9.0	51.5	12.0	47.5	16.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				_
Max Green Setting (Gmax), s	5.0	* 45	5.0	45.1	8.0	* 42	12.0	38.1				
Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s	7.0	47.0	6.4	36.0	10.0	44.0	14.0	23.9				
	0.0	0.0	0.0	6.7	0.0	0.0	0.0	7.5				
Intersection Summary												
HCM 6th Ctrl Delay			88.4									
HCM 6th LOS			F									

#### Notes

	-	$\mathbf{r}$	4	+	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>^</b>	ኘኘ	11
Traffic Volume (veh/h)	1928	390	160	2270	608	307
Future Volume (veh/h)	1928	390	160	2270	608	307
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2096	424	174	2467	661	334
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2553	1216	334	3268	924	746
Arrive On Green	0.50	0.50	0.10	0.64	0.27	0.27
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h	2096	424	174	2467	661	334
Grp Sat Flow(s), veh/h/ln	1702	1585	1728	1702	1728	1395
Q Serve( $g_s$ ), s	41.8	10.2	5.7	40.4	20.8	12.0
Cycle Q Clear(q_c), s	41.8	10.2	5.7	40.4	20.8	12.0
Prop In Lane	41.ŏ	10.2	5.7 1.00	40.4	20.8	12.0
	2552		334	2260		
Lane Grp Cap(c), veh/h	2553	1216		3268	924	746
V/C Ratio(X)	0.82	0.35	0.52	0.75	0.72	0.45
Avail Cap(c_a), veh/h	2630	1240	334	3268	924	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.58	0.58	0.75	0.75
Uniform Delay (d), s/veh	25.5	4.4	51.6	15.0	39.8	36.6
Incr Delay (d2), s/veh	0.2	0.0	0.4	1.0	3.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	. 17.7	8.9	3.8	17.8	12.0	12.6
Unsig. Movement Delay, s/ve						
LnGrp Delay(d),s/veh	25.7	4.4	51.9	16.0	43.4	38.0
LnGrp LOS	С	А	D	В	D	D
Approach Vol, veh/h	2520			2641	995	
Approach Delay, s/veh	22.1			18.4	41.6	
Approach LOS	С			В	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		82.0		38.0	16.8	65.2
Change Period (Y+Rc), s		* 5.2		5.9	* 5.2	* 5.2
Max Green Setting (Gmax), s		* 77		32.1	* 11	* 62
Max Q Clear Time ( $g_c+11$ ), s		42.4		22.8	7.7	43.8
Green Ext Time (p_c), s	,	29.4		3.8	0.0	45.0
		27.4		5.0	0.0	10.2
Intersection Summary						
HCM 6th Ctrl Delay			23.7			
HCM 6th LOS			С			

Notes

### HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	∢	+	*	1	٦	1	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	<u>۲</u>	1111	1	ካካ	***		ካካካ		11			
Traffic Volume (veh/h)	87	1638	567	410	1819	0	989	0	867	0	0	
Future Volume (veh/h)	87	1638	567	410	1819	0	989	0	867	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	95	1780	616	446	1977	0	1075	1075	942			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	74	2332	988	718	2792	0	1309	1309	1307			
Arrive On Green	0.04	0.36	0.36	0.21	0.55	0.00	0.26	0.26	0.26			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	95	1780	616	446	1977	0	1075	1075	942			
Grp Sat Flow(s), veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	5.0	29.3	28.7	14.1	34.4	0.0	24.2	24.2	7.6			
Cycle Q Clear(g_c), s	5.0	29.3	28.7	14.1	34.4	0.0	24.2	24.2	7.6			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	74	2332	988	718	2792	0	1309	1309	1307			
V/C Ratio(X)	1.28	0.76	0.62	0.62	0.71	0.00	0.82	0.82	0.72			
Avail Cap(c_a), veh/h	74	2332	988	718	2792	0	1419	1419	1367			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	57.5	33.7	13.9	43.2	20.1	0.0	41.7	41.7	25.6			
Incr Delay (d2), s/veh	173.5	1.4	1.8	1.7	1.5	0.0	3.7	3.7	1.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	8.3	14.2	22.5	8.8	17.4	0.0	13.7	13.7	22.4			
Unsig. Movement Delay, s/veh		11.2	22.0	0.0	17.1	0.0	10.7	10.7	22.1			
LnGrp Delay(d),s/veh	231.0	35.2	15.7	44.9	21.7	0.0	45.5	45.5	27.4			
LnGrp LOS	201.0 F	00.2 D	В	D	C	A	-10.0 D	40.0 D	C			
Approach Vol, veh/h		2491		D	2423		2017	2017	0			
Approach Delay, s/veh		37.8			2423		37.0	37.0				
Approach LOS		57.0 D			20.9 C		57.0 D	57.0 D				
Approach LOS					C		U	U				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	9.5	72.3		38.2	31.6	50.2						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	5.0	* 56		33.9	* 23	* 44						
Max Q Clear Time (g_c+l1), s	7.0	36.4		26.2	16.1	31.3						
Green Ext Time (p_c), s	0.0	17.5		5.1	1.0	11.7						
Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			55.4 C									
Notoc			Ŭ									

### Notes

User approved ignoring U-Turning movement. \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

03 FB PM 5:00 pm 07/28/2020 Future without Project Conditions PM

# HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

	۶	-	$\mathbf{r}$	•	-	•	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	<u></u> ↑↑₽		<u> </u>	tttp-		<u> </u>	- <b>††</b>	1	<u>۲</u>	<u></u>	1
Traffic Volume (veh/h)	213	1639	133	182	2360	92	185	652	93	297	807	210
Future Volume (veh/h)	213	1639	133	182	2360	92	185	652	93	297	807	210
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	232	1782	145	198	2565	100	201	709	101	323	877	228
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	179	1895	154	187	2521	98	209	998	533	267	1037	551
Arrive On Green	0.06	0.39	0.39	0.06	0.39	0.39	0.06	0.28	0.28	0.07	0.29	0.29
Sat Flow, veh/h	1781	4814	391	1781	6402	249	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	232	1259	668	198	1932	733	201	709	101	323	877	228
Grp Sat Flow(s),veh/h/ln	1781	1702	1800	1781	1609	1826	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	32.0	32.2	5.0	35.4	35.4	5.0	16.1	4.1	6.0	20.9	9.9
Cycle Q Clear(g_c), s	5.0	32.0	32.2	5.0	35.4	35.4	5.0	16.1	4.1	6.0	20.9	9.9
Prop In Lane	1.00	10.10	0.22	1.00	1000	0.14	1.00	000	1.00	1.00	4007	1.00
Lane Grp Cap(c), veh/h	179	1340	709	187	1900	719	209	998	533	267	1037	551
V/C Ratio(X)	1.30	0.94	0.94	1.06	1.02	1.02	0.96	0.71	0.19	1.21	0.85	0.41
Avail Cap(c_a), veh/h	179	1340	709	187	1900	719	209	1106	581	267	1145	599
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	0.09	0.09	0.09	0.17	0.17	0.17
Uniform Delay (d), s/veh	24.0	26.2	26.3	24.9	27.3	27.3	30.9	29.1	21.2	31.3	30.0	22.4
Incr Delay (d2), s/veh	168.2	13.8	22.4	81.8	24.9	38.7	10.8	0.2	0.0	100.5	1.0	0.1
Initial Q Delay(d3),s/veh	0.0 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 7.5	0.0	0.0 12.7	0.0 10.0	0.0
%ile BackOfQ(85%),veh/In		18.8	21.8	9.3	21.8	27.6	3.1	<i>I</i> .5	1.9	12.7	10.0	4.4
Unsig. Movement Delay, s/veh	192.3	40.0	48.7	106.7	52.2	66.0	41.7	29.3	21.2	131.7	31.0	22.5
LnGrp Delay(d),s/veh LnGrp LOS	192.3 F	40.0 D	48.7 D	106.7 F	52.2 F	00.U F	41.7 D	29.3 C	21.2 C	131.7 F	31.0 C	
	<u> </u>		D	<u> </u>		<u> </u>	D		C	<u> </u>		C
Approach Vol, veh/h		2159 59.1			2863			1011 30.9			1428 52.4	
Approach Delay, s/veh Approach LOS					59.5			30.9 C			52.4 D	
••		E			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	40.5	9.0	31.5	9.0	40.5	10.0	30.5				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	5.0	* 33	5.0	* 29	5.0	* 33	6.0	* 28				
Max Q Clear Time (g_c+I1), s	7.0	37.4	7.0	22.9	7.0	34.2	8.0	18.1				_
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay			54.2									
HCM 6th LOS			D									

Notes

	-	-	•	×	-
FBI	FBT	WBT	WBR	SBL	SBR
					11
	1770	2219		250	350
					350
					0
	Ū	Ū			1.00
	1 00	1 00			1.00
1.00			1.00		1.00
1870			1870		1870
					380
					0.92
					0.92
					992
					0.28
					2790
					380
					1395
6.4	0.0	41.7	6.9	5.6	9.1
6.4	0.0	41.7	6.9	5.6	9.1
1.00			1.00	1.00	1.00
269	3086	2462	764	960	992
0.92	0.62	0.98	0.27	0.28	0.38
269	3086	2462	764	960	992
	2.00	1.00	1.00	1.00	1.00
					0.93
					21.6
					1.0
					0.0
					10.8
	0.0	20.0	Τ.Δ	3.7	10.0
	10	36.8	1/7	26.2	22.7
					22.7 C
E			Б		U
	A	D		С	
	2		4	5	6
	60.2		29.8	11.0	49.2
	* 5.8		* 4.8	4.0	* 5.8
	* 54		* 25	7.0	* 43
	2.0		11.1	8.4	43.7
	25.9		2.2	0.0	0.0
		23.4			
	6.4 1.00 269 0.92	↑↑↑         228       1770         228       1770         0       0         1.00       1.00         1.00       1.00         1.00       1.00         1.00       1.00         1.00       1.00         1.00       1.00         1870       1870         248       1924         0.92       2         269       3086         0.16       1.00         3456       5274         248       1924         1728       1702         6.4       0.0         1.00       2.00         1.00       2.00         1.00       2.00         1.00       2.00         1.00       1.00         35.0       1.0         0.0       0.0         35.0       1.0         0.0       0.0         5.8       0.5         72.7       1.0         E       A         2172       9.2         A       2         2.0       2         4.0       2         9.2       <	**         ***           228         1770         2219           228         1770         2219           0         0         0           1.00         1.00         1.00           1.00         1.00         1.00           1.00         1.00         No           1870         1870         1870           248         1924         2412           0.92         0.92         0.92           2         2         2           269         3086         2462           0.16         1.00         0.48           3456         5274         5274           248         1924         2412           1728         1702         1702           6.4         0.0         41.7           1.00         269         3086         2462           0.92         0.62         0.98         269           269         3086         2462         2.00           2.00         2.00         1.00         1.00           1.00         1.00         1.00         3.0           1.00         1.00         1.00         3.0	in         in         in           228         1770         2219         188           228         1770         2219         188           0         0         0         0           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           248         1924         2412         204           0.92         0.92         2         2         2           269         3086         2462         764           0.16         1.00         41.7         6.9           1.00         1.702         1585         6.4           0.4         0.0         41.7         6.9           1.00         1.00         1.00         1.00           269         3086         2462         764           0.92         0.62	M         A+A         T         M           228         1770         2219         188         250           0         0         0         0         0           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           1.01         1.00         1.00         1.00           248         1924         2412         204         272           269         3086         2462         764         960           0.16         1.00         41.7         6.9         5.6           1.00         1.00         1.00         1.00         1.00           269         3086         2462         764         960           2.00         2.00         1.00         1.00         1

	۶	-	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲	<b>^</b>	<u>ተተ</u> ኑ		ኘካ	1
Traffic Volume (veh/h)	543	1128	1822	267	377	441
Future Volume (veh/h)	543	1128	1822	267	377	441
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	-	-	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	590	1226	1980	290	410	479
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	3347	1653	239	806	766
Arrive On Green	0.25	0.66	0.37	0.37	0.23	0.23
Sat Flow, veh/h	1781	5274	4675	650	3456	1585
Grp Volume(v), veh/h	590	1226	1488	782	410	479
Grp Sat Flow(s), veh/h/ln	1781	1702	1702	1753	1728	1585
Q Serve( $g_s$ ), s	22.5	9.8	33.0	33.0	9.3	20.1
Cycle Q Clear(g_c), s	22.5	9.8	33.0	33.0	9.3	20.1
Prop In Lane	1.00		20.0	0.37	1.00	1.00
Lane Grp Cap(c), veh/h	445	3347	1248	643	806	766
V/C Ratio(X)	1.32	0.37	1.19	1.22	0.51	0.63
Avail Cap(c_a), veh/h	445	3347	1248	643	806	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.47	0.47	0.44	0.44
Uniform Delay (d), s/veh	33.7	7.0	28.5	28.5	30.0	17.2
Incr Delay (d2), s/veh	161.1	0.3	90.6	104.1	0.2	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	40.4	5.0	36.2	40.6	5.2	21.3
Unsig. Movement Delay, s/vel		0.0	00.2	10.0	0.2	2110
LnGrp Delay(d),s/veh	194.9	7.3	119.1	132.6	30.2	17.9
LnGrp LOS	F	A	F	132.0 F	50.2 C	B
Approach Vol, veh/h		1816	2270		889	
Approach Delay, s/veh		68.3	123.7		23.6	
Approach LOS		60.5 E	F		23.0 C	
	1	2		4	U	4
Timer - Assigned Phs	2(0			•		6
Phs Duration (G+Y+Rc), s	26.0	38.0		26.0		64.0
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	22.5	* 33		* 21		* 59
Max Q Clear Time (g_c+I1), s		35.0		22.1		11.8
Green Ext Time (p_c), s	0.0	0.0		0.0		12.2
Intersection Summary						
HCM 6th Ctrl Delay			85.6			
HCM 6th LOS			F			

## HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

	۲	+	$\mathbf{F}$	•	+	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		<u> </u>	<u> ተተኑ</u>			4			- <del>4</del> >	
Traffic Volume (veh/h)	26	1425	56	57	2043	68	10	7	25	42	4	74
Future Volume (veh/h)	26	1425	56	57	2043	68	10	7	25	42	4	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1 00	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	1070	No 1870	1070	1070	N0	1070	1070	No 1870	1070	1070	No	1070
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1870 28	1870	1870 61	1870 62	1870 2221	1870 74	1870 11	1870	1870 27	1870 46	1870 4	1870 80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	40 0.92	4 0.92	0.92
Percent Heavy Veh, %	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Cap, veh/h	169	2789	110	192	2808	93	147	120	309	211	40	314
Arrive On Green	0.55	0.55	0.55	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	161	5040	198	315	5076	169	293	359	927	469	120	942
Grp Volume(v), veh/h	28	1046	564	62	1487	808	46	0	0	130	0	0
Grp Sat Flow(s), veh/h/ln	161	1702	1835	315	1702	1840	1579	0	0	1531	0	Ű
Q Serve(g_s), s	8.5	17.8	17.8	9.9	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	8.5	17.8	17.8	27.7	0.0	0.0	1.7	0.0	0.0	5.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.09	0.24		0.59	0.35		0.62
Lane Grp Cap(c), veh/h	169	1884	1015	192	1884	1018	576	0	0	564	0	0
V/C Ratio(X)	0.17	0.56	0.56	0.32	0.79	0.79	0.08	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	169	1884	1015	192	1884	1018	576	0	0	564	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.48	0.48	0.48	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	13.0	13.0	5.0	0.0	0.0	20.6	0.0	0.0	21.7	0.0	0.0
Incr Delay (d2), s/veh	1.9	1.1	2.0	2.1	1.7	3.2	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	0.7	9.1	10.0	0.9	0.8	1.6	1.2	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	12.8	14.0	15.0	7.1	1.7	3.2	20.8	0.0	0.0	21.9	0.0	0.0
Lingip Delay(d), siven	12.8 B	14.0 B	15.0 B	7.1 A	1.7 A	3.2 A	20.8 C	0.0 A	0.0 A	21.9 C	0.0 A	0.0 A
Approach Vol, veh/h	D	1638	D	A	2357	A	C	46	<u>A</u>	C	130	<u> </u>
Approach Delay, s/veh		14.3			2.3			20.8			21.9	
Approach LOS		В			2.3 A			20.0 C			21.7 C	
				4	Π	1					U	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		* 4.8 * 50		* 5.4 * 30		* 4.8 * 50		* 5.4 * 30				
Max Green Setting (Gmax), s Max Q Clear Time (q_c+11), s		* 50 29.7		30 7.2		50 19.8		30 3.7				
Green Ext Time (p_c), s		29.7 19.0		0.7		23.8		3.7 0.2				
		17.0		0.7		23.0		0.2				
Intersection Summary			7.0									
HCM 6th Ctrl Delay HCM 6th LOS			7.9									
			А									

Notes

## HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{r}$	*	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		ሻ	<u>ተተ</u> ኑ		<u>٦</u>		77	ሻ		1
Traffic Volume (veh/h)	33	1227	191	583	1784	32	173	0	458	194	0	325
Future Volume (veh/h)	33	1227	191	583	1784	32	173	0	458	194	0	325
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	36	1334	208	634	1939	35	188	0	498	211	0	353
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	0	2	2	0	2
Cap, veh/h	59	2251	351	396	3587	65	228	0	0	228	0	0
Arrive On Green	0.01	0.17	0.17	0.22	0.69	0.69	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	4455	695	1781	5164	93	1781	188		1781	211	
Grp Volume(v), veh/h	36	1019	523	634	1278	696	188	45.6		211	78.3	
Grp Sat Flow(s),veh/h/ln	1781	1702	1745	1781	1702	1854	1781	D		1781	E	
Q Serve(g_s), s	1.8	24.9	24.9	20.0	16.5	16.5	9.3			10.5		
Cycle Q Clear(g_c), s	1.8	24.9	24.9	20.0	16.5	16.5	9.3			10.5		
Prop In Lane	1.00	4700	0.40	1.00	00/1	0.05	1.00			1.00		
Lane Grp Cap(c), veh/h	59	1720	882	396	2364	1287	228			228		
V/C Ratio(X)	0.61	0.59	0.59	1.60	0.54	0.54	0.82			0.92		
Avail Cap(c_a), veh/h	99	1720	882	396	2364	1287	445			228		
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	43.9	28.9	28.9	35.0	6.7	6.7	38.2			38.8		
Incr Delay (d2), s/veh	7.9	1.2	2.3	282.3	0.9	1.6	7.3			39.5		
Initial Q Delay(d3),s/veh	0.0 1.7	0.0	0.0 15.3	0.0 56.2	0.0 7.5	0.0	0.0			0.0 9.8		
%ile BackOfQ(85%),veh/In		14.7	15.3	00.Z	7.5	8.4	6.6			9.8		
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	51.9	30.1	31.3	317.3	7.6	8.4	45.6			78.3		
LINGIP Delay(d), siven	01.9 D	30.1 C	31.3 C	517.5 F	7.0 A	0.4 A	45.0 D			76.3 E		
· · · · · · · · · · · · · · · · · · ·	D	1578	C	Г	2608	A	D			L		
Approach Vol, veh/h Approach Delay, s/veh		31.0			83.1							
11		51.0 C			03.1 F							
Approach LOS												
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	7.0	67.5	15.5		24.0	50.5	15.5					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	5.0	* 39	22.5		20.0	* 24	7.0					
Max Q Clear Time (g_c+I1), s	3.8	18.5	11.3		22.0	26.9	12.5					
Green Ext Time (p_c), s	0.0	14.1	0.4		0.0	0.0	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			63.4									
HCM 6th LOS			E									
N1 1												

Notes

Intersection													
Int Delay, s/veh	6.2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	- ኘ	朴朴。		- ሽ	朴朴序			- 🗘			- 🗘		
Traffic Vol, veh/h	73	2431	16	8	2501	7	8	0	8	11	0	75	
Future Vol, veh/h	73	2431	16	8	2501	7	8	0	8	11	0	75	
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										
Storage Length	49	-	-	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	79	2642	17	9	2718	8	9	0	9	12	0	82	

Major/Minor I	Major1		Ν	/lajor2		N	/linor1		1	Minor2				
Conflicting Flow All	2726	0	0	2659	0	0	3914	5553	1330	3955	5557	1363		
Stage 1	-	-	-	-	-	-	2809	2809	-	2740	2740	-		
Stage 2	-	-	-	-	-	-	1105	2744	-	1215	2817	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	~ 53	-	-	57	-	-	~ 4	0	124	~ 3	0	118		
Stage 1	-	-	-	-	-	-	10	39	-	~ 11	42	-		
Stage 2	-	-	-	-	-	-	202	42	-	172	39	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	~ 53	-	-	57	-	-	-	0	124	-	0	118		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-		
Stage 1	-	-	-	-	-	-	10	0	-	~ 11	35	-		
Stage 2	-	-	-	-	-	-	53	35	-	-	0	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	12.3			0.3										
HCM LOS							-			-				
Minor Lane/Major Mvm	nt M	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		-	~ 53	-	-	57	-	-	-					
HCM Lane V/C Ratio		-	1.497	-	-	0.153	-	-	-					
HCM Control Delay (s)	1	-\$	426.2	-	-	79.2	-	-	-					
HCM Lane LOS		-	F	-	-	F	-	-	-					
HCM 95th %tile Q(veh)	)	-	7.3	-	-	0.5	-	-	-					
Notes														
~: Volume exceeds ca	pacity	\$: De	lay exc	eeds 30	)0s	+: Com	putation	Not D	efined	*: All	major v	olume in	platoon	

Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	朴朴		٦	<b>*††</b>	Y	
Traffic Vol, veh/h	2428	5	29	2442	7	18
Future Vol, veh/h	2428	5	29	2442	7	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	86	-	0	-
Veh in Median Storage	e,# 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	2639	5	32	2654	8	20

Major/Minor	Major1	١	Major2	I	Minor1			
Conflicting Flow All	0	0	2644	0	3768	1322		
Stage 1	-	-	-	-	2642	-		
Stage 2	-	-	-	-	1126	-		
Critical Hdwy	-	-	5.34	-	5.74	7.14		
Critical Hdwy Stg 1	-	-	-	-	6.64	-		
Critical Hdwy Stg 2	-	-	-	-	6.04	-		
Follow-up Hdwy	-	-	3.12	-	3.82	3.92		
Pot Cap-1 Maneuver	-	-	58	-	9	126		
Stage 1	-	-	-	-	22	-		
Stage 2	-	-	-	-	244	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver	· -	-	58	-	~ 4	126		
Mov Cap-2 Maneuver	· -	-	-	-	18	-		
Stage 1	-	-	-	-	22	-		
Stage 2	-	-	-	-	109	-		
Approach	EB		WB		NB			
HCM Control Delay, s	. 0		1.5		156.8			
HCM LOS					F			
Minor Lane/Major Mvr	mt	NBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)		47	-	-	58	-		
HCM Lane V/C Ratio		0.578	-	-	0.543	-		
HCM Control Delay (s	5)	156.8	-		124.8	-		
HCM Lane LOS		F	-	-	F	-		
HCM 95th %tile Q(vel	h)	2.2	-	-	2.2	-		
Notes								
~: Volume exceeds ca	apacity	\$: De	elay exc	eeds 3	00s	+: Com	outation Not Defined	*: All major volume in platoon

#### Intersection

Int Delay, s/veh	0						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	İ
Lane Configurations	Y		et –			÷	•
Traffic Vol, veh/h	0	0	25	0	0	17	ſ
Future Vol, veh/h	0	0	25	0	0	17	(
Conflicting Peds, #/hr	0	0	0	0	0	0	)
Sign Control	Stop	Stop	Free	Free	Free	Free	;
RT Channelized	-	None	-	None	-	None	ļ
Storage Length	0	-	-	-	-	-	
Veh in Median Storage	, # 0	-	0	-	-	0	)
Grade, %	0	-	0	-	-	0	)
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	0	27	0	0	18	

Major/Minor	Minor1	Ν	Najor1	Ν	/lajor2	
Conflicting Flow All	45	27	0	0	27	0
Stage 1	27	-	-	-	-	-
Stage 2	18	-	-	-	-	-
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	965	1048	-	-	1587	-
Stage 1	996	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver		1048	-	-	1587	-
Mov Cap-2 Maneuver	965	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWI	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1587	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	Α	Α	-
HCM 95th %tile Q(veh)	-	-	-	0	-

## HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020	0/2020
------------	--------

	۶	+	*	*	Ļ	*	<	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	<b>^</b>		ሻሻ	***	1	ሻሻ	<b>††</b>	1	ሻሻ	- <b>††</b>	1
Traffic Volume (veh/h)	125	2075	0	188	1369	218	132	712	437	678	636	137
Future Volume (veh/h)	125	2075	0	188	1369	218	132	712	437	678	636	137
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 0 0	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	1070	No	0	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870	1870 2255	0	1870	1870 1488	1870	1870	1870 774	1870 475	1870 737	1870	1870
Adj Flow Rate, veh/h Peak Hour Factor	136 0.92	2255 0.92	0 0.92	204 0.92	0.92	237 0.92	143 0.92	0.92	475	0.92	691 0.92	149 0.92
Percent Heavy Veh, %	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Cap, veh/h	144	1745	0	144	1745	753	198	1128	503	461	1399	624
Arrive On Green	0.04	0.34	0.00	0.08	0.68	0.68	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	3456	5274	0.00	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	136	2255	0	204	1488	237	143	774	475	737	691	149
Grp Sat Flow(s), veh/h/ln	1728	1702	0	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve( $g_s$ ), s	4.7	41.0	0.0	5.0	26.5	6.5	4.9	22.8	35.0	16.0	17.6	7.6
Cycle Q Clear(g_c), s	4.7	41.0	0.0	5.0	26.5	6.5	4.9	22.8	35.0	16.0	17.6	7.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	1745	0	144	1745	753	198	1128	503	461	1399	624
V/C Ratio(X)	0.94	1.29	0.00	1.42	0.85	0.31	0.72	0.69	0.94	1.60	0.49	0.24
Avail Cap(c_a), veh/h	144	1745	0	144	1745	753	259	1128	503	461	1399	624
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.90	0.90	0.90	0.11	0.11	0.11	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	39.5	0.0	55.0	16.7	8.8	55.6	35.7	39.9	52.0	27.4	24.4
Incr Delay (d2), s/veh	57.7	136.1	0.0	220.1	5.0	1.0	0.5	0.4	5.4	279.8	1.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	5.1	52.6	0.0	9.8	9.0	3.4	2.6	11.0	15.5	35.4	10.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.1	175.6	0.0	275.1	21.7	9.8	56.1	36.1	45.3	331.8	28.6	25.3
LnGrp LOS	F	F	Α	F	С	A	E	D	D	F	С	C
Approach Vol, veh/h		2391			1929			1392			1577	
Approach Delay, s/veh		172.1			47.0			41.3			170.0	
Approach LOS		F			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	46.5	10.9	53.6	9.0	46.5	20.0	44.5				
Change Period (Y+Rc), s	4.0	* 5.5	4.0	6.4	4.0	* 5.5	4.0	6.4				
Max Green Setting (Gmax), s	5.0	* 41	9.0	45.1	5.0	* 41	16.0	38.1				
Max Q Clear Time (g_c+l1), s	6.7	28.5	6.9	19.6	7.0	43.0	18.0	37.0				
Green Ext Time (p_c), s	0.0	11.0	0.0	9.7	0.0	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			113.6									
HCM 6th LOS			F									

#### Notes

	-	$\mathbf{r}$	∢	←	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ኘካ	<b>^</b>	ኘኘ	11
Traffic Volume (veh/h)	2923	416	162	1587	170	204
Future Volume (veh/h)	2923	416	162	1587	170	204
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3177	452	176	1725	185	222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3694	1280	230	4204	291	235
Arrive On Green	0.72	0.72	0.07	0.82	0.08	0.08
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h	3177	452	176	1725	185	2170
1 1	1702	452 1585	1728	1725	1728	1395
Grp Sat Flow(s),veh/h/ln						
Q Serve(g_s), s	54.7	9.2	6.0	10.8	6.2	9.5
Cycle Q Clear(g_c), s	54.7	9.2	6.0	10.8	6.2	9.5
Prop In Lane	2/04	1.00	1.00	4004	1.00	1.00
Lane Grp Cap(c), veh/h	3694	1280	230	4204	291	235
V/C Ratio(X)	0.86	0.35	0.77	0.41	0.64	0.95
Avail Cap(c_a), veh/h	3694	1280	230	4204	291	235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.88	0.88	0.32	0.32
Uniform Delay (d), s/veh	12.1	3.1	55.1	2.8	53.2	54.7
Incr Delay (d2), s/veh	0.2	0.0	11.4	0.3	3.4	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	19.1	4.6	4.7	4.3	3.8	9.5
Unsig. Movement Delay, s/vel	h					
LnGrp Delay(d),s/veh	12.4	3.1	66.5	3.1	56.6	77.0
LnGrp LOS	В	А	E	А	E	E
Approach Vol, veh/h	3629			1901	407	
Approach Delay, s/veh	11.2			9.0	67.7	
Approach LOS	B			A	E	
Timer - Assigned Phs	U	2		4	5	6
j						
Phs Duration (G+Y+Rc), s		104.0		16.0	12.0	92.0 * E 2
Change Period (Y+Rc), s		* 5.2		5.9	4.0	* 5.2
Max Green Setting (Gmax), s		* 99		10.1	8.0	* 87
Max Q Clear Time (g_c+l1), s	;	12.8		11.5	8.0	56.7
Green Ext Time (p_c), s		31.0		0.0	0.0	29.7
Intersection Summary						
HCM 6th Ctrl Delay			14.4			
HCM 6th LOS			В			

Notes

## HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{\hat{z}}$	∢	+	*	•	٦	1	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	٦	1111	1	ካካ	ተተተ		ሻሻሻ		77			
Traffic Volume (veh/h)	26	2132	953	817	1382	0	333	0	493	0	0	
Future Volume (veh/h)	26	2132	953	817	1382	0	333	0	493	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	28	2317	1036	888	1502	0	362	362	536			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	45	2295	749	1239	3617	0	581	581	1323			
Arrive On Green	0.03	0.36	0.36	0.36	0.71	0.00	0.12	0.12	0.12			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	28	2317	1036	888	1502	0	362	362	536			
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	1.9	42.8	42.8	26.6	14.6	0.0	8.2	8.2	0.0			
Cycle Q Clear(g_c), s	1.9	42.8	42.8	26.6	14.6	0.0	8.2	8.2	0.0			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	45	2295	749	1239	3617	0	581	581	1323			
V/C Ratio(X)	0.62	1.01	1.38	0.72	0.42	0.00	0.62	0.62	0.41			
Avail Cap(c_a), veh/h	92	2295	749	1239	3617	0	1235	1235	1686			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.43	0.43	0.43	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	57.9	38.6	28.0	33.2	7.2	0.0	50.6	50.6	20.5			
Incr Delay (d2), s/veh	5.9	14.7	176.5	2.0	0.4	0.0	1.1	1.1	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/ln	1.6	22.0	78.5	14.9	7.3	0.0	5.5	5.5	12.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	53.3	204.5	35.2	7.6	0.0	51.7	51.7	20.7			
LnGrp LOS	E	F	F	D	А	А	D	D	С			
Approach Vol, veh/h		3381			2390		898	898				
Approach Delay, s/veh		99.7			17.9		33.2	33.2				
Approach LOS		F			В		С	С				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	7.5	91.7		20.8	49.7	49.5						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	6.2	* 66		29.5	* 30	* 43						
Max Q Clear Time (g_c+I1), s	3.9	16.6		10.2	28.6	44.8						
Green Ext Time (p_c), s	0.0	30.9		3.6	0.4	0.0						
Intersection Summary												
HCM 6th Ctrl Delay			61.4									
HCM 6th LOS			E									
			-									

#### Notes

## HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

08/10/2020	0/2020
------------	--------

	۶	-	$\mathbf{r}$	-	-	•	1	1	~	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	- ሽ	ተተጮ		<u>۲</u>	***	1	<u> </u>	- <b>††</b>	1	<u>۲</u>	<u></u>	1
Traffic Volume (veh/h)	326	2417	87	36	1694	96	240	847	232	241	392	313
Future Volume (veh/h)	326	2417	87	36	1694	96	240	847	232	241	392	313
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	354	2627	95	39	1841	104	261	921	252	262	426	340
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	219	1890	68	179	1794	557	332	1030	547	238	1109	618
Arrive On Green	0.08	0.37	0.37	0.06	0.35	0.35	0.06	0.29	0.29	0.08	0.31	0.31
Sat Flow, veh/h	1781	5060	181	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	354	1760	962	39	1841	104	261	921	252	262	426	340
Grp Sat Flow(s),veh/h/ln	1781	1702	1838	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.0	33.6	33.6	1.2	31.6	4.1	5.0	22.4	11.1	7.0	8.4	15.0
Cycle Q Clear(g_c), s	7.0	33.6	33.6	1.2	31.6	4.1	5.0	22.4	11.1	7.0	8.4	15.0
Prop In Lane	1.00	1071	0.10	1.00	4704	1.00	1.00	1000	1.00	1.00	1100	1.00
Lane Grp Cap(c), veh/h	219	1271	686	179	1794	557	332	1030	547	238	1109	618
V/C Ratio(X)	1.62	1.38	1.40	0.22	1.03	0.19	0.79	0.89	0.46	1.10	0.38	0.55
Avail Cap(c_a), veh/h	219	1271	686	179	1794	557	332	1066	564	238	1145	634
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	0.09	0.09	0.09	0.62	0.62	0.62
Uniform Delay (d), s/veh	22.7	28.2	28.2	21.7	29.2	20.3	28.4	30.6	22.9	27.6	24.2	21.3
Incr Delay (d2), s/veh	299.0	177.7	189.7	0.6	28.3	0.7	1.2	1.0	0.1	75.4	0.1	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(85%),veh/In	29.6	61.7	69.7	0.9	21.6	2.9	3.6	10.4	4.7	9.3	5.0	7.4
Unsig. Movement Delay, s/veh	321.7	205.9	217.9	22.3	57.4	21.0	29.6	31.7	23.0	103.1	24.3	21.9
LnGrp Delay(d),s/veh	521.7 F	200.9 F	217.9 F	22.3 C	57.4 F		29.0 C	51.7 C	23.0 C	103.1 F	24.3 C	
LnGrp LOS	<u> </u>		F	C		С	C		C	F		<u> </u>
Approach Vol, veh/h		3076			1984			1434			1028	
Approach Delay, s/veh		223.0			54.8			29.8			43.6	
Approach LOS		F			D			С			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	36.7	9.0	33.3	9.0	38.7	11.0	31.3				
Change Period (Y+Rc), s	4.0	* 5.1	4.0	* 5.2	4.0	* 5.1	4.0	* 5.2				
Max Green Setting (Gmax), s	7.0	* 31	5.0	* 29	5.0	* 33	7.0	* 27				
Max Q Clear Time (g_c+I1), s	9.0	33.6	7.0	17.0	3.2	35.6	9.0	24.4				_
Green Ext Time (p_c), s	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			117.3									
HCM 6th LOS			F									

Notes

	≯	+	t	*	*	4
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘካ	<b>^</b>	<b>^</b>	1	ኘካ	11
Traffic Volume (veh/h)	660	2550	1873	275	86	120
Future Volume (veh/h)	660	2550	1873	275	86	120
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	717	2772	2036	299	93	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	653	3086	1895	588	960	1302
Arrive On Green	0.38	1.00	0.37	0.37	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	717	2772	2036	299	93	130
Grp Sat Flow(s), veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve(g_s), s	17.0	0.0	33.4	13.2	1.8	2.3
Cycle Q Clear(g_c), s	17.0	0.0	33.4	13.2	1.8	2.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	653	3086	1895	588	960	1302
V/C Ratio(X)	1.10	0.90	1.07	0.51	0.10	0.10
Avail Cap(c_a), veh/h	653	3086	1895	588	960	1302
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	28.0	0.0	28.3	21.9	24.1	13.4
Incr Delay (d2), s/veh	65.2	4.7	44.0	3.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	15.2	2.4	26.6	7.6	1.3	4.1
Unsig. Movement Delay, s/veh		2.1	20.0	7.0	1.0	1.1
LnGrp Delay(d),s/veh	93.2	4.7	72.3	25.1	24.3	13.6
LnGrp LOS	F	4.7 A	, <u>2</u> .5	20.1 C	24.5 C	B
Approach Vol, veh/h		3489	2335	<u> </u>	223	
Approach Delay, s/veh		22.9	66.2		18.0	
Approach LOS		C	E		B	
			L	4		/
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	21.0	39.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s		* 54		* 25	17.0	* 33
Max Q Clear Time (g_c+l1), s		2.0		4.3	19.0	35.4
Green Ext Time (p_c), s		43.0		0.8	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			39.4			
HCM 6th LOS			D			

Notes

	≯	-	-	•	1	-
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u></u>		**		<u> </u>	<u> </u>
Traffic Volume (veh/h)	717	2185	1063	352	236	219
Future Volume (veh/h)	717	2185	1063	352	236	219
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	Ū	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	779	2375	1155	383	257	238
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0.92	0.92	0.92	0.92	0.92	0.92
	505		1128	367	480	669
Cap, veh/h		3830				
Arrive On Green	0.28	0.75	0.29	0.29	0.14	0.14
Sat Flow, veh/h	1781	5274	2729	857	3456	1585
Grp Volume(v), veh/h	779	2375	772	766	257	238
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1716	1728	1585
Q Serve(g_s), s	25.5	19.6	38.5	38.5	6.2	9.2
Cycle Q Clear(g_c), s	25.5	19.6	38.5	38.5	6.2	9.2
Prop In Lane	1.00			0.50	1.00	1.00
Lane Grp Cap(c), veh/h	505	3830	760	734	480	669
V/C Ratio(X)	1.54	0.62	1.01	1.04	0.54	0.36
Avail Cap(c_a), veh/h	505	3830	760	734	806	819
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.43	0.43	0.94	0.94
Uniform Delay (d), s/veh	32.3	5.3	32.1	32.1	36.1	17.7
Incr Delay (d2), s/veh	254.3	0.8	25.2	34.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	65.5	7.6	25.8	27.5	4.3	12.5
Unsig. Movement Delay, s/veh		1.0	20.0	21.0	1.0	12.0
LnGrp Delay(d), s/veh	286.6	6.0	57.3	66.3	36.9	18.0
LINGIP Delay(u), siven	200.0 F	0.0 A	57.5 F	00.3 F	30.9 D	10.0 B
· · ·	Г			Г		D
Approach Vol, veh/h		3154	1538		495	
Approach Delay, s/veh		75.3	61.8		27.8	
Approach LOS		E	E		С	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	29.0	43.5		17.5		72.5
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	25.5	* 30		* 21		* 5 <b>9</b>
Max Q Clear Time (g_c+l1), s	27.5	40.5		11.2		21.6
Green Ext Time (p_c), s	0.0	0.0		1.3		28.1
Intersection Summary						
HCM 6th Ctrl Delay			66.8			
HCM 6th LOS			00.0 E			
			E			
Nataa						

#### Notes

## HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

Maxement         EBI         EBT         EBR         WBL         WBT         WBR         NBL         NBT         NBR         SBL         SBL         SBR         SB		≯	+	$\mathbf{F}$	4	+	•	1	1	1	*	ţ	~
Traffic Volume (veh/n)       67       2228       21       15       1425       83       9       2       11       36       1       97         Future Volume (veh/n)       67       2228       21       15       1425       83       9       2       11       36       1       97         Future Volume (veh/n)       67       2228       21       15       1425       83       9       2       11       36       1       97         Perklike Adj(A, pb1)       1.00       1.01       1.00       1.03       1.03       0.33       0.33       0.33       0.33       0.33 <td< th=""><th>Movement</th><th></th><th></th><th>EBR</th><th></th><th></th><th>WBR</th><th>NBL</th><th></th><th>NBR</th><th>SBL</th><th></th><th>SBR</th></td<>	Movement			EBR			WBR	NBL		NBR	SBL		SBR
Future Volume (veh/h)       67       2228       21       15       1425       83       9       2       11       36       1       97         Initial O (Ob), veh       0			<u> </u>						<b>4</b> >			- <del>4</del> >	
Initial O (Ob), veh         0	· · · · ·												
Pack Bike Adj(A, pbT)       1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Parking Bus, Adj       1.00       No       No<			0			0			0			0	
Work Zone On Ápproach         No         No         No         No         No         Adj Sat Flow, vehn/hin         1870			1.00			1.00			4.00			1 00	
Acij Sat Flow, vehr/hn       1870       <		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Adj Flow Rale, veh/h       73       2422       23       16       1549       90       10       2       12       39       1       105         Peak Hour Factor       0.92		1070		1070	1070		1070	1070		1070	1070		1070
Peak Hour Factor       0.92       0.93       0.3													
Percent Heavy Veh, %       2 <th2< th="">       2       <th2< th=""></th2<></th2<>													
Cap, veh/h       249       2886       27       103       1889       109       246       65       254       163       30       375         Arrive On Green       0.55       0.55       0.50       1.00       1.00       0.33       0.30       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0													
Arrive On Green       0.55       0.55       1.00       1.00       1.00       0.33													
Sat Flow, veh/h       306       5216       49       139       3414       197       568       194       762       338       91       1125         Grp Volume(V), veh/h       73       1579       866       16       803       836       24       0       0       145       0       0         Grp Sat Flow(s), veh/h/ln       306       1702       1861       139       1777       1835       1523       0       0       1554       0       0         O Serve(g.s), s       12.6       34.8       34.9       9.2       0.0       0.0       0.0       0.0       0.4       0.0       0.0         Cycle O Clear(g.c), s       12.6       34.8       34.9       44.1       0.0       0.0       0.9       0.0       0.5       8.0       0.0         Cycle O Clear(g.c), seh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         VC Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.83       0.10       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       0.00       0.0       <													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
Grp Sat Flow(s), veh/h/ln       306       1702       1861       139       1777       1835       1523       0       0       1554       0       0         O Serve(g_s), s       12.6       34.8       34.9       9.2       0.0       0.0       0.0       0.0       0.4       0.0       0.0         Cycle O Clear(g_c), s       12.6       34.8       34.9       94.1       0.0       0.0       0.9       0.0       0.4       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.82       0.04       0.00       0.0													
Q Serve(g_s), s       12.6       34.8       34.9       9.2       0.0       0.0       0.0       0.0       0.4       0.0       0.0         Cycle O Clear(g_c), s       12.6       34.8       34.9       44.1       0.0       0.0       0.9       0.0       0.0       5.8       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       249       1884       1030       103       983       1015       554       0       0       569       0       0         V/C Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.82       0.04       0.00       0.00       0.02       2.5       0.00       0.00         Avait Cap(c_a), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         Upstream Filter(I)       0.75       0.75       0.38       0.38       0.30       0.0       0.00       1.00       1.00       0.00       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0													
Cycle Q Clear(g_c), s       12.6       34.8       34.9       44.1       0.0       0.0       0.9       0.0       0.0       5.8       0.0       0.0         Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.82       0.04       0.00       0.025       0.00       0.00         Avait Cap(c_a), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       0.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Prop In Lane       1.00       0.03       1.00       0.11       0.42       0.50       0.27       0.72         Lane Grp Cap(c), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         V/C Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.82       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       1.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00													
Lane Grp Cap(c), veh/h2491884103010398310155640056900V/C Ratio(X)0.290.840.840.160.820.820.040.000.000.250.000.00Avail Cap(c_a), veh/h2491884103010398310155640056900HCM Platoon Ratio1.001.001.002.002.002.001.001.001.001.001.001.00Upstream Filter(I)0.750.750.380.380.381.000.000.000.000.000.00Uniform Delay (d), s/veh11.816.716.815.50.00.020.30.00.021.90.00.0Intil D Delay (d2), s/veh2.23.56.31.23.03.00.10.00.00.00.0Intil D Delay (d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.0Mile BackOfQ (85%), veh/ln1.716.418.70.51.41.40.0<			54.0			0.0			0.0			0.0	
V/C Ratio(X)       0.29       0.84       0.84       0.16       0.82       0.82       0.04       0.00       0.00       0.25       0.00       0.00         Avail Cap(c_a), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       2.00       2.00       2.00       1.00			1884			983			0			0	
Avail Cap(c_a), veh/h       249       1884       1030       103       983       1015       564       0       0       569       0       0         HCM Platoon Ratio       1.00       1.00       1.00       1.00       2.00       2.00       1.0													
HCM Platoon Ratio       1.00       1.00       1.00       2.00       2.00       1.	.,												
Upstream Filter(1)       0.75       0.75       0.75       0.38       0.38       0.38       1.00       0.00       1.00       0.00       0.00         Uniform Delay (d), s/veh       11.8       16.7       16.8       15.5       0.0       0.0       20.3       0.0       0.0       21.9       0.0       0.0         Incr Delay (d2), s/veh       2.2       3.5       6.3       1.2       3.0       3.0       0.1       0.0       0.0       0.0       0.0         Initial Q Delay(d3), s/veh       0.0       0													
Uniform Delay (d), s/veh11.816.716.815.50.00.020.30.00.021.90.00.0Incr Delay (d2), s/veh2.23.56.31.23.03.00.10.00.00.20.00.0Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln1.716.418.70.51.41.40.60.00.00.00.00.0Unsig. Movement Delay, s/vehUnsig. Movement Delay, s/vehUnsig. Movement Delay, s/vehUnsig. Movement Delay, s/veh0.00.022.20.00.00.0LnGrp Delay(d), s/veh14.020.323.116.73.03.020.40.00.022.20.00.0LnGrp Delay, dy, s/veh21.13.1165524145Approach LOSCACCCCImer - Assigned Phs2468Phs Duration (G+Y+RC), s54.635.454.635.4Change Period (Y+RC), s*4.8*5.4*4.8*5.4Max Green Setting (Gmax), s*50*30*50*30Max Q Clear Time ( $\mathbf{g}_{c+1}$ ), s46.17.836.92.9Green Ext Time ( $\mathbf{p}_{c}$ ), s3.40.812.60.1Intersection SummaryHCM 6th Ctrl Delay14.314.3 <td></td>													
Incr Delay (d2), s/veh       2.2       3.5       6.3       1.2       3.0       3.0       0.1       0.0       0.0       0.0       0.0         Initial Q Delay(d3), s/veh       0.0       <													
Initial Q Delay(d3),s/veh       0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       14.0       20.3       23.1       16.7       3.0       3.0       20.4       0.0       0.0       22.2       0.0       0.0         LnGrp DOS       B       C       C       B       A       C       A       A       C       A       A         Approach Vol, veh/h       2518       1655       24       145         Approach Delay, s/veh       21.1       3.1       20.4       22.2         Approach LOS       C       A       C       C       C         Timer - Assigned Phs       2       4       6       8		0.0						0.0	0.0		0.0		
LnGrp Delay(d),s/veh       14.0       20.3       23.1       16.7       3.0       3.0       20.4       0.0       0.0       22.2       0.0       0.0         LnGrp LOS       B       C       C       B       A       C       A       A       C       A       A         Approach Vol, veh/h       2518       1655       24       145         Approach Delay, s/veh       21.1       3.1       20.4       22.2         Approach LOS       C       A       C       C       C         Timer - Assigned Phs       2       4       6       8	%ile BackOfQ(85%),veh/In	1.7	16.4	18.7	0.5	1.4	1.4	0.6	0.0	0.0	3.8	0.0	0.0
LnGrp LOS         B         C         C         B         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         A         A         C         C         A         C         C         A         C         C         C         A         C         C         A         C	Unsig. Movement Delay, s/veh												
Approach Vol, veh/h       2518       1655       24       145         Approach Delay, s/veh       21.1       3.1       20.4       22.2         Approach LOS       C       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3	LnGrp Delay(d),s/veh	14.0		23.1	16.7	3.0	3.0	20.4	0.0	0.0	22.2	0.0	0.0
Approach Delay, s/veh       21.1       3.1       20.4       22.2         Approach LOS       C       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3       14.3	LnGrp LOS	В	С	С	В	А	А	С	А	А	С	А	A
Approach LOS       C       A       C       C         Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3	Approach Vol, veh/h		2518			1655			24			145	
Timer - Assigned Phs       2       4       6       8         Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+11), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3	Approach Delay, s/veh		21.1			3.1			20.4			22.2	
Phs Duration (G+Y+Rc), s       54.6       35.4       54.6       35.4         Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3	Approach LOS		С			А			С			С	
Change Period (Y+Rc), s       * 4.8       * 5.4       * 4.8       * 5.4         Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+I1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3       14.3       14.3	Timer - Assigned Phs		2		4		6		8				
Max Green Setting (Gmax), s       * 50       * 30       * 50       * 30         Max Q Clear Time (g_c+l1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary         HCM 6th Ctrl Delay       14.3	Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Max Q Clear Time (g_c+l1), s       46.1       7.8       36.9       2.9         Green Ext Time (p_c), s       3.4       0.8       12.6       0.1         Intersection Summary       14.3	Change Period (Y+Rc), s		* 4.8		* 5.4		* 4.8		* 5.4				
Green Ext Time (p_c), s         3.4         0.8         12.6         0.1           Intersection Summary         Intersection Sum	Max Green Setting (Gmax), s		* 50		* 30		* 50		* 30				
Intersection Summary HCM 6th Ctrl Delay 14.3	Max Q Clear Time (g_c+I1), s		46.1		7.8		36.9		2.9				
HCM 6th Ctrl Delay 14.3	Green Ext Time (p_c), s		3.4		0.8		12.6		0.1				
, ,	· · · · · · · · · · · · · · · · · · ·												
HCM 6th LOS B													
	HCM 6th LOS			В									

Notes

## HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{r}$	•	+	•	1	1	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		- ሻ	<u></u> ↑↑₽		٦.		11	ሻ		1
Traffic Volume (veh/h)	318	1783	154	257	1082	354	260	0	1329	34	0	43
Future Volume (veh/h)	318	1783	154	257	1082	354	260	0	1329	34	0	43
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	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	4070
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	346	1938	167	279	1176	385	283	0	1445	37	0	47
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	0	2	2	0	2
Cap, veh/h	336	2482	213	277	1845	604	324	0	0	324	0	0
Arrive On Green	0.38	1.00	1.00	0.16	0.48	0.48	0.18	0.00	0.00	0.18	0.00	0.00
Sat Flow, veh/h	1781	4790	410	1781	3805	1245	1781	283		1781	37	
Grp Volume(v), veh/h	346	1374	731	279	1052	509	283	49.2		37	30.9	
Grp Sat Flow(s),veh/h/ln	1781	1702	1796	1781	1702	1646	1781	D		1781	С	
Q Serve(g_s), s	17.0	0.0	0.0	14.0	20.7	20.8	13.9			1.6		
Cycle Q Clear(g_c), s	17.0	0.0	0.0	14.0	20.7	20.8	13.9			1.6		
Prop In Lane	1.00	17/1	0.23 931	1.00 277	1650	0.76 798	1.00 324			1.00 324		
Lane Grp Cap(c), veh/h V/C Ratio(X)	336 1.03	1764 0.78	0.79	1.01	0.64	0.64	324 0.87			0.11		
Avail Cap(c_a), veh/h	336	1764	931	277	1650	0.64 798	445			324		
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.37	0.37	0.37	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	28.0	0.0	0.0	38.0	17.3	17.3	35.8			30.8		
Incr Delay (d2), s/veh	37.3	1.3	2.5	55.8	1.9	3.9	13.4			0.2		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.2		
%ile BackOfQ(85%),veh/ln	10.8	0.6	1.2	13.6	11.0	11.2	9.9			1.2		
Unsig. Movement Delay, s/veh		0.0	1.2	10.0	11.0	11.2	7.7			1.2		
LnGrp Delay(d),s/veh	65.3	1.3	2.5	93.8	19.2	21.2	49.2			30.9		
LnGrp LOS	F	A	A	F	B	С	D			С		
Approach Vol, veh/h		2451		-	1840							
Approach Delay, s/veh		10.7			31.0							
Approach LOS		В			С							
Timer - Assigned Phs	1	2	3		5	6	7					
Phs Duration (G+Y+Rc), s	21.0	48.6	20.4		18.0	51.6	20.4					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	17.0	* 29	22.5		14.0	* 32	5.0					
Max Q Clear Time $(q_c+11)$ , s	19.0	22.8	15.9		14.0	2.0	3.6					
Green Ext Time (p_c), s	0.0	4.4	0.5		0.0	20.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			С									
•• ·												

Notes

16.6												
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
- ኘ	朴朴。		- ሽ	朴朴序			- 🗘			- 🗘		
55	1939	21	25	1935	19	4	1	16	9	0	47	
55	1939	21	25	1935	19	4	1	16	9	0	47	
0	0	0	0	0	0	0	0	0	0	0	0	
Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
-	-	None	-	-	None	-	-	None	-	-	None	
49	-	-	0	-	-	-	-	-	-	-	-	
,# -	0	-	-	0	-	-	0	-	-	0	-	
-	0	-	-	0	-	-	0	-	-	0	-	
92	92	92	92	92	92	92	92	92	92	92	92	
2	2	2	2	2	2	2	2	2	2	2	2	
60	2108	23	27	2103	21	4	1	17	10	0	51	
	EBL 55 55 0 Free - 49 , # - 92 2	EBL         EBT           ↑         ↑           55         1939           55         1939           0         0           Free         Free           49         -           49         -           49         0           92         92           2         2	EBL         EBT         EBR           ↑↑↑↓            55         1939         21           55         1939         21           55         1939         21           55         1939         21           0         0         0           Free         Free         Free           49         -         -           49         -         -           49         -         -           49         -         -           49         -         -           92         0         -           92         92         92           2         2         2	EBL         EBT         EBR         WBL           ↑         ↑         ↑         ↑         ↑           55         1939         21         25           55         1939         21         25           55         1939         21         25           0         0         0         0           Free         Free         Free         Free           1         -         None         -           49         -         -         0           , #         0         -         -           92         92         92         92           2         2         2         2	EBL         EBT         EBR         WBL         WBT           ↑↑↑↑         FBR         VBL         VBT           ↑↑↑↑         ↑↑↑↑         1939         21         25         1935           55         1939         21         25         1935           55         1939         21         25         1935           0         0         0         0         0           Free         Free         Free         Free         Free           49         -         None         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         0         -         -           49         -         2         2         2         2 <tr< td=""><td>EBL         EBR         WBL         WBT         WBR           <b>1 1 1 1 1 1</b>           55         1939         21         25         1935         19           55         1939         21         25         1935         19           55         1939         21         25         1935         19           0         0         0         0         0         0           Free         Free         Free         Free         Free         Free           49         -         None         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         92         92         92         92</td><td>EBL         EBT         EBR         WBL         WBT         WBR         NBL           1         1         1         1         1         1         1         1           55         1939         21         25         1935         199         4           55         1939         21         25         1935         199         4           65         1939         21         25         1935         199         4           55         1939         21         25         1935         199         4           60         100         00         0         0         0         0         10           Free         Free         Free         Free         Free         Stop         10         10         10           49          None          0          10         10         10         10           49          0          10         10         10         10         10         10           49          0          10         10         10         10         10         10         10</td><td>EBL         EBR         WBL         WBT         WBR         NBL         NBT           ↑↑↑↓         ←↑↓         ↑↑↓↓         ↑↑↓↓         ↓↓↓↓         ↓↓↓↓↓           55         1939         21         25         1935         199         4         1           55         1939         21         25         1935         19         4         1           55         1939         21         25         1935         19         4         1           55         1939         21         25         1935         19         4         1           60         10         0         0         0         0         0         0           Free         Free         Free         Free         Free         Stop         5           749         -         NO         -         NO         -         -         -           49         -         NO         -         0         -         -         -         -           49         -         0         -         0         -         -         0         -           49         92         92         92         <td< td=""><td>EBLEBTEBRWBLWBTWBRNBLNBTNBT<math>\uparrow \uparrow \uparrow \uparrow</math><math>\uparrow \uparrow \uparrow \uparrow \uparrow</math><math>\downarrow \uparrow \uparrow \uparrow \uparrow \uparrow \uparrow</math><math>\downarrow \bullet /math></td><td>EBLEBTEBRWBLWBTWBRNBLNBTNBRSBL<math>\uparrow \uparrow \uparrow I</math><math>\uparrow \uparrow I I</math><math>\uparrow \uparrow I I</math><math>I I I I I I I I I I I I I I I I I I I </math></td><td>EBLEBTEBRWBLWBTWBRNBLNBTNBRSBLSBT<math>\uparrow \uparrow \uparrow I</math><math>\uparrow \uparrow \uparrow I</math>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td><td>EBLEBREBRWBLWBRWBRNBLNBTNBRSBLSBTSBT<math>\uparrow \uparrow \uparrow I</math>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td></td<></td></tr<>	EBL         EBR         WBL         WBT         WBR <b>1 1 1 1 1 1</b> 55         1939         21         25         1935         19           55         1939         21         25         1935         19           55         1939         21         25         1935         19           0         0         0         0         0         0           Free         Free         Free         Free         Free         Free           49         -         None         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         -         0         -         0         -           49         92         92         92         92	EBL         EBT         EBR         WBL         WBT         WBR         NBL           1         1         1         1         1         1         1         1           55         1939         21         25         1935         199         4           55         1939         21         25         1935         199         4           65         1939         21         25         1935         199         4           55         1939         21         25         1935         199         4           60         100         00         0         0         0         0         10           Free         Free         Free         Free         Free         Stop         10         10         10           49          None          0          10         10         10         10           49          0          10         10         10         10         10         10           49          0          10         10         10         10         10         10         10	EBL         EBR         WBL         WBT         WBR         NBL         NBT           ↑↑↑↓         ←↑↓         ↑↑↓↓         ↑↑↓↓         ↓↓↓↓         ↓↓↓↓↓           55         1939         21         25         1935         199         4         1           55         1939         21         25         1935         19         4         1           55         1939         21         25         1935         19         4         1           55         1939         21         25         1935         19         4         1           60         10         0         0         0         0         0         0           Free         Free         Free         Free         Free         Stop         5           749         -         NO         -         NO         -         -         -           49         -         NO         -         0         -         -         -         -           49         -         0         -         0         -         -         0         -           49         92         92         92 <td< td=""><td>EBLEBTEBRWBLWBTWBRNBLNBTNBT<math>\uparrow \uparrow \uparrow \uparrow</math><math>\uparrow \uparrow \uparrow \uparrow \uparrow</math><math>\downarrow \uparrow \uparrow \uparrow \uparrow \uparrow \uparrow</math><math>\downarrow \bullet /math></td><td>EBLEBTEBRWBLWBTWBRNBLNBTNBRSBL<math>\uparrow \uparrow \uparrow I</math><math>\uparrow \uparrow I I</math><math>\uparrow \uparrow I I</math><math>I I I I I I I I I I I I I I I I I I I </math></td><td>EBLEBTEBRWBLWBTWBRNBLNBTNBRSBLSBT<math>\uparrow \uparrow \uparrow I</math><math>\uparrow \uparrow \uparrow I</math>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td><td>EBLEBREBRWBLWBRWBRNBLNBTNBRSBLSBTSBT<math>\uparrow \uparrow \uparrow I</math>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td></td<>	EBLEBTEBRWBLWBTWBRNBLNBTNBT $\uparrow \uparrow \uparrow \uparrow$ $\uparrow \uparrow \uparrow \uparrow \uparrow$ $\downarrow \uparrow \uparrow \uparrow \uparrow \uparrow \uparrow$ $\downarrow \bullet	EBLEBTEBRWBLWBTWBRNBLNBTNBRSBL $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow I I$ $\uparrow \uparrow I I$ $I I I I I I I I I I I I I I I I I I I $	EBLEBTEBRWBLWBTWBRNBLNBTNBRSBLSBT $\uparrow \uparrow \uparrow I$ $\uparrow \uparrow \uparrow I$ IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	EBLEBREBRWBLWBRWBRNBLNBTNBRSBLSBTSBT $\uparrow \uparrow \uparrow I$ IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

Major/Minor	Major1		Ν	/lajor2		ſ	Minor1		1	Minor2				
Conflicting Flow All	2124	0	0	2131	0	0	3135	4418	1066	3132	4419	1062		
Stage 1	-	-	-	-	-	-	2240	2240	-	2168	2168	-		
Stage 2	-	-	-	-	-	-	895	2178	-	964	2251	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	108	-	-	107	-	-	12	~ 1	187	12	1	189		
Stage 1	-	-	-	-	-	-	26	78	-	29	85	-		
Stage 2	-	-	-	-	-	-	273	84	-	248	77	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	108	-	-	107	-	-	~ 4	0	187	~ 5	0	189		
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	0	-	~ 5	0	-		
Stage 1	-	-	-	-	-	-	12	35	-	13	64	-		
Stage 2	-	-	-	-	-	-	149	63	-	97	34	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	2			0.6		\$	608.5		\$	884.2				
HCM LOS							F			F				
Minor Lane/Major Mvn	nt N	BLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		18	108	-	-	107	-	-	27					
HCM Lane V/C Ratio			0.554	-	-	0.254	-	-	2.254					
HCM Control Delay (s)		608.5	73.5	-	-	49.7	-		884.2					
HCM Lane LOS		F	F	-	-	Е	-	-	F					
HCM 95th %tile Q(veh	l)	3.2	2.6	-	-	0.9	-	-	7.3					
Notes														
~: Volume exceeds ca	pacity	\$: De	elay exc	eeds 30	00s	+: Com	putation	n Not De	efined	*: All	major v	olume i	n platoon	

04 FP AM 5:00 pm 07/28/2020 Future with Project Conditions AM

2100

4

8 2201

Mvmt Flow

#### Intersection Int Delay, s/veh 0.1 EBT Movement EBR WBL WBT NBL NBR **^** Y Lane Configurations 朴朴 ٦ 2025 0 Traffic Vol, veh/h 1932 4 0 7 Future Vol, veh/h 1932 4 7 2025 0 0 0 Conflicting Peds, #/hr 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free **RT** Channelized -None -None -None Storage Length 0 86 ----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

0

0

Major/Minor I	Major1	Ν	/lajor2		Minor1	
Conflicting Flow All	0	0	2104	0	2998	1052
Stage 1	-	-	-	-	2102	-
Stage 2	-	-	-	-	896	-
Critical Hdwy	-	-	5.34	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-	-	3.12	-	3.82	3.92
Pot Cap-1 Maneuver	-	-	111	-	26	191
Stage 1	-	-	-	-	49	-
Stage 2	-	_	-	-	325	-
Platoon blocked, %	-	-		-	020	
Mov Cap-1 Maneuver	-	-	111	-	24	191
Mov Cap-2 Maneuver	-			-	43	-
Stage 1	_	-	-	-	49	-
Stage 2			_	-	302	-
Sidge 2					502	
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		0	
HCM LOS					А	
	.1	DI 1	EDT			
Minor Lane/Major Mvm	nt ini	BLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		-	-	-	111	-
HCM Lane V/C Ratio		-	-	-	0.069	-
HCM Control Delay (s)		0	-	-	39.8	-
HCM Lane LOS		А	-	-	E	-
HCM 95th %tile Q(veh)	)	-	-	-	0.2	-

#### Intersection

Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	0	21	9	1	21
Future Vol, veh/h	0	0	21	9	1	21
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	0	0	23	10	1	23

Major/Minor	Minor1	Ν	/lajor1	Ν	/lajor2		
Conflicting Flow All	53	28	0	0	33	0	
Stage 1	28	-	-	-	-	-	
Stage 2	25	-	-	-	-	-	
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	955	1047	-	-	1579	-	
Stage 1	995	-	-	-	-	-	
Stage 2	998	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	954	1047	-	-	1579	-	
Mov Cap-2 Maneuver	954	-	-	-	-	-	
Stage 1	995	-	-	-	-	-	
Stage 2	997	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.3
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRWE	3Ln1	SBL	SBT
Capacity (veh/h)	-	-	-	1579	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	-	-	0	7.3	0
HCM Lane LOS	-	-	А	А	Α
HCM 95th %tile Q(veh)	-	-	-	0	-

## HCM 6th Signalized Intersection Summary 1: Beverly Glen BI & Santa Monica BI

08/10/2020	0/2020
------------	--------

Movement         EBL         EBR         WBL         WBT         WBR         NBL         NBT         NBR         SBL         SBI         SB		۶	+	*	4	ł	*	<	1	1	*	ţ	~
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Movement		EBT	EBR	WBL	WBT		NBL	NBT	NBR	SBL	SBT	SBR
Future Volume (veh/h)       197       1717       0       299       2030       664       119       669       151       385       1019       55         nitial Q (Qb), veh       0       <													
Initial Q(D), veh         0													
Ped-Bike Adj(A_pbT)       1.00													
Parking Bus, Adj       1.00       1.0			0			0			0			0	
Work Zone On Ápproach         No         No         No         No         No           Ad] Sat How, veh/hin         1870         1			1.00			1.00			1.00			1.00	
Adj Sat Flow, veh/h/in       1870       <		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Adj Flow Rate, veh/h       214       1866       0       325       2207       722       129       749       164       418       1108       60         Peak Hour Factor       0.92		1070		0	1070		1070	1070		1070	1070		1070
Pack Hour Factor       0.92       0.9	· ·												
Percent Heavy Veh, %       2       2       0       2													
Cap, veh/h14417870230191575314411285033461336596Arrive On Green0.040.350.000.090.500.500.040.320.100.380.38Sat Flow, veh/h345655740345651061585345635541585345635541585Grp Volume(V), veh/h214186603252207722129749164418110860Grp Sat Flow(s), veh/h172817020172817021585172817771585172817771585Q Serve(g_c), s5.042.00.08.045.045.045.521.99.512.033.92.9Prop In Lane1.000.001.001.001.001.001.001.001.00Lane Grp Cap(C), veh/h14417870230191575314411285033461336596V/C Ratio(X)1.491.040.001.411.150.960.900.660.331.210.830.10Avail Cap(C, a), veh/h14417870230191575314411285033461336596HCM Platoon Ratio1.001.001.001.031.331.331.331.001.001.001.001.00Inor Delay (d), siveh52.5 <td></td>													
Arrive On Green       0.04       0.35       0.00       0.09       0.50       0.50       0.04       0.32       0.32       0.10       0.38       0.38         Sat Flow, veh/h       3456       5274       0       3456       5106       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       3456       3554       1728       1777       1585       0       0       1728       1777       1585       1728       1777       1585       0       0.0       3.0       2.9       9.5       12.0       33.9       2.9       120       33.9       2.9       120       3.9       2.9       120       13.0       1.00       <													
Sat Flow, veh/h       3456       5274       0       3456       5106       1585       3456       3554       1585       3456       3554       1585       3456       3554       1585       1585       1585       1720       164       418       1108       60         Grp Sat Flow(s),veh/h/ln       1728       1702       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       1728       1777       1585       120       33,9       2.9       Prop In Lane       1.00       0.00       1.00 </td <td></td>													
Grp Volume(v), veh/h214186603252207722129749164418110860Grp Sat Flow(s), veh/h/ln172817020172817021585172817771585172817771585O Serve(g_s), s5.042.00.08.045.045.04.521.99.512.033.92.9Cycle O Clear(g_c), s5.042.00.08.045.04.521.99.512.033.92.9Prop In Lane1.000.001.001.001.001.001.001.001.001.00Lane Grp Cap(c), veh/h1.4417870230191575314411285033461336596V/C Ratio(X)1.491.040.001.411.150.960.660.331.210.830.10Avail Cap(c_a), veh/h1.4417870230191575314411285033461336596V/C Ratio(X)1.491.001.001.331.331.331.001.001.001.001.00Avail Cap(c_a), veh/h1.4417870230191575314411285033461336596V/C Ratio(X)1.401.001.001.001.031.331.331.001.001.001.00Unstream Filter(I)1.000.000													
Grp Sat Flow(s),veh/h/ln172817020172817021585172817771585172817771585O Serve(g_s), s5.042.00.08.045.045.04.521.99.512.033.92.9Cycle O Clear(g_c), s5.042.00.08.045.04.521.99.512.033.92.9Prop In Lane1.000.001.001.001.001.001.001.001.001.00Lane Grp Cap(c), veh/h14417870230191575314411285033461336596V/C Ratio(X)1.491.040.001.411.150.960.900.660.331.210.830.10Avail Cap(c_a), veh/h14417870230191575314411285033461336596V/C Ratio(X)1.491.001.001.031.331.331.001.001.001.00Upstream Filter(I)1.001.001.001.331.331.331.001.001.001.00Upstream Filter(I)1.000.000.580.580.580.620.620.621.001.00Infital D Delay (d2), s/veh25.233.80.019.372.616.932.01.91.1118.36.10.3Intital D Delay (d2), s/veh30.972.80.0 <td></td>													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
Cycle Q Clear(g_C), s       5.0       42.0       0.0       8.0       45.0       45.0       4.5       21.9       9.5       12.0       33.9       2.9         Prop In Lane       1.00       0.00       1.00       <													
Prop In Lane       1.00       0.00       1.00 <td></td> <td>5.0</td> <td>42.0</td> <td>0.0</td> <td>8.0</td> <td>45.0</td> <td>45.0</td> <td></td> <td>21.9</td> <td></td> <td></td> <td>33.9</td> <td>2.9</td>		5.0	42.0	0.0	8.0	45.0	45.0		21.9			33.9	2.9
V/C Ratio(X)       1.49       1.04       0.00       1.41       1.15       0.96       0.90       0.66       0.33       1.21       0.83       0.10         Avail Cap(c_a), veh/h       144       1787       0       230       1915       753       144       1128       503       346       1336       596         HCM Platoon Ratio       1.00       1.00       1.00       1.33       1.33       1.03       1.00		1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Avail Cap(c_a), veh/h       144       1787       0       230       1915       753       144       1128       503       346       1336       596         HCM Platoon Ratio       1.00       1.00       1.00       1.00       1.33       1.33       1.33       1.00	Lane Grp Cap(c), veh/h	144	1787	0	230	1915	753	144	1128	503	346	1336	596
HCM Platoon Ratio       1.00       1.00       1.33       1.33       1.33       1.00       1.													
Upstream Filter(I)       1.00       1.00       0.00       0.58       0.58       0.58       0.62       0.62       1.00       1.00       1.00       1.00         Uniform Delay (d), s/veh       57.5       39.0       0.0       54.7       30.1       25.3       57.2       35.4       31.2       54.0       34.0       24.3         Incr Delay (d2), s/veh       252.0       33.8       0.0       199.3       72.6       16.9       32.0       1.9       1.1       118.3       6.1       0.3         Initial Q Delay(d3), s/veh       0.0<													
Uniform Delay (d), s/veh       57.5       39.0       0.0       54.7       30.1       25.3       57.2       35.4       31.2       54.0       34.0       24.3         Incr Delay (d2), s/veh       252.0       33.8       0.0       199.3       72.6       16.9       32.0       1.9       1.1       118.3       6.1       0.3         Initial Q Delay(d3), s/veh       0.0													
Incr Delay (d2), S/veh       252.0       33.8       0.0       199.3       72.6       16.9       32.0       1.9       1.1       118.3       6.1       0.3         Initial Q Delay(d3), s/veh       0.0 <td></td>													
Initial Q Delay(d3),s/veh       0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
%ile BackOfQ(85%),veh/ln11.028.60.013.636.925.93.912.35.415.419.62.1Unsig. Movement Delay, s/veh309.572.80.0253.9102.642.289.337.332.2172.340.024.6LnGrp DOSFFAFFDFDCFDCApproach Vol, veh/h2080325410421586Approach Delay, s/veh97.2104.443.074.3Approach LOSFFFDETimer - Assigned Phs1234567Phs Duration (G+Y+Rc), s9.050.59.051.512.047.516.044.5Change Period (Y+Rc), s4.0*5.54.06.44.0*5.54.06.4Max Green Setting (Gmax), s5.0*455.045.18.0*4212.038.1Max Q Clear Time (p_c), s0.00.06.80.00.00.07.51.5Intersection Summary50.050.550.06.80.00.07.55.5													
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       309.5       72.8       0.0       253.9       102.6       42.2       89.3       37.3       32.2       172.3       40.0       24.6         LnGrp LOS       F       F       A       F       F       D       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       F       D       C       A0.0       24.6         Approach Vol, veh/h       2080       3254       1042       1586       Approach LOS       F       F       D       C       F       D       C       F       D       C       F       D       C       F       D       E <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
LnGrp Delay(d),s/veh       309.5       72.8       0.0       253.9       102.6       42.2       89.3       37.3       32.2       172.3       40.0       24.6         LnGrp LOS       F       F       A       F       F       D       F       D       C       F			28.0	0.0	13.0	30.9	25.9	3.9	12.3	5.4	15.4	19.6	Z. I
LnGr LOS         F         F         A         F         F         D         F         D         C         F         D         C           Approach Vol, veh/h         2080         3254         1042         1586           Approach Delay, s/veh         97.2         104.4         43.0         74.3           Approach LOS         F         F         F         D         E           Timer - Assigned Phs         1         2         3         4         5         6         7         8           Phs Duration (G+Y+Rc), s         9.0         50.5         9.0         51.5         12.0         47.5         16.0         44.5           Change Period (Y+Rc), s         4.0         * 5.5         4.0         6.4         4.0         * 5.5         4.0         6.4           Max Green Setting (Gmax), s         5.0         * 45         5.0         45.1         8.0         * 42         12.0         38.1           Max Q Clear Time (g_c+I1), s         7.0         47.0         6.5         35.9         10.0         44.0         14.0         23.9           Green Ext Time (p_c), s         0.0         0.0         0.0         0.0         0.0         7.5			72.0	0.0	252.0	102.6	12.2	00.2	27.2	<u>ວງ ງ</u>	170 0	10.0	24.6
Approach Vol, veh/h       2080       3254       1042       1586         Approach Delay, s/veh       97.2       104.4       43.0       74.3         Approach LOS       F       F       D       E         Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       9.0       50.5       9.0       51.5       12.0       47.5       16.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+I1), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5       Intersection Summary													
Approach Delay, s/veh       97.2       104.4       43.0       74.3         Approach LOS       F       F       D       E         Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       9.0       50.5       9.0       51.5       12.0       47.5       16.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+I1), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5       Intersection Summary		1					U	1		C	1		
Approach LOSFFDETimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s9.050.59.051.512.047.516.044.5Change Period (Y+Rc), s4.0* 5.54.06.44.0* 5.54.06.4Max Green Setting (Gmax), s5.0* 455.045.18.0* 4212.038.1Max Q Clear Time (g_c+I1), s7.047.06.535.910.044.014.023.9Green Ext Time (p_c), s0.00.06.80.00.00.07.5													
Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       9.0       50.5       9.0       51.5       12.0       47.5       16.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+I1), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5         Intersection Summary													
Phs Duration (G+Y+Rc), s       9.0       50.5       9.0       51.5       12.0       47.5       16.0       44.5         Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+I1), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5         Intersection Summary       5       5       5       5       5       5       5       5       5		1		0			,	7				L	
Change Period (Y+Rc), s       4.0       * 5.5       4.0       6.4       4.0       * 5.5       4.0       6.4         Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+l1), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5         Intersection Summary	¥	1						1					
Max Green Setting (Gmax), s       5.0       * 45       5.0       45.1       8.0       * 42       12.0       38.1         Max Q Clear Time (g_c+11), s       7.0       47.0       6.5       35.9       10.0       44.0       14.0       23.9         Green Ext Time (p_c), s       0.0       0.0       6.8       0.0       0.0       7.5         Intersection Summary													
Max Q Clear Time (g_c+l1), s         7.0         47.0         6.5         35.9         10.0         44.0         14.0         23.9           Green Ext Time (p_c), s         0.0         0.0         6.8         0.0         0.0         7.5           Intersection Summary													_
Green Ext Time (p_c), s 0.0 0.0 0.0 6.8 0.0 0.0 0.0 7.5 Intersection Summary													
Intersection Summary													
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5				
HCM 6th Ctrl Delay 88.5													
J	HCM 6th Ctrl Delay			88.5									
HCM 6th LOS F	HCM 6th LOS			F									

#### Notes

	-	$\mathbf{r}$	4	-	1	۲
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	1	ካካ		ኘ	11
Traffic Volume (veh/h)	1928	390	158	2270	608	308
Future Volume (veh/h)	1928	390	158	2270	608	308
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00	v	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2096	424	172	2467	661	335
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2553	1216	334	3268	924	746
Arrive On Green	0.50	0.50	0.10	0.64	0.27	0.27
Sat Flow, veh/h	5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h	2096	424	172	2467	661	335
Grp Sat Flow(s), veh/h/ln	1702	424 1585	1728	1702	1728	1395
	41.8	10.2	5.7	40.4		1395
Q Serve( $g_s$ ), s					20.8	
Cycle Q Clear(g_c), s	41.8	10.2	5.7	40.4	20.8	12.0
Prop In Lane	2552	1.00	1.00	22/0	1.00	1.00
Lane Grp Cap(c), veh/h	2553	1216	334	3268	924	746
V/C Ratio(X)	0.82	0.35	0.51	0.75	0.72	0.45
Avail Cap(c_a), veh/h	2630	1240	334	3268	924	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.51	0.51	0.75	0.75
Uniform Delay (d), s/veh	25.5	4.4	51.5	15.0	39.8	36.6
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.9	3.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	17.7	8.9	3.6	17.6	12.0	12.6
Unsig. Movement Delay, s/ve						
LnGrp Delay(d),s/veh	25.7	4.4	51.8	15.9	43.4	38.1
LnGrp LOS	С	А	D	В	D	D
Approach Vol, veh/h	2520			2639	996	
Approach Delay, s/veh	22.1			18.2	41.6	
Approach LOS	С			В	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		82.0		38.0	16.8	65.2
Change Period (Y+Rc), s		* 5.2		5.9	* 5.2	* 5.2
Max Green Setting (Gmax), s		* 77		32.1	* 11	* 62
Max Q Clear Time (g_c+I1), s		42.4		32.1 22.8	7.7	43.8
Green Ext Time (p_c), s	)	42.4 29.4		3.8	0.0	45.0
		27.4		3.0	0.0	10.2
Intersection Summary						
HCM 6th Ctrl Delay			23.6			
HCM 6th LOS			С			

Notes

## HCM 6th Signalized Intersection Summary 3: Avenue of the Stars & Santa Monica Bl

	۲	-	$\mathbf{F}$	∢	-	*	•	٦	1	$\searrow$	$\mathbf{F}$	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	
Lane Configurations	ሻ	1111	1	ሻሻ	ተተተ		ሻሻሻ		77			
Traffic Volume (veh/h)	87	1639	567	410	1817	0	989	0	867	0	0	
Future Volume (veh/h)	87	1639	567	410	1817	0	989	0	867	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0	1870	1870	1870			
Adj Flow Rate, veh/h	95	1782	616	446	1975	0	1075	1075	942			
Peak Hour Factor	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	0	2	2	2			
Cap, veh/h	119	2450	1012	665	2680	0	1294	1294	1255			
Arrive On Green	0.07	0.38	0.38	0.19	0.52	0.00	0.26	0.26	0.26			
Sat Flow, veh/h	1781	6434	1585	3456	5274	0	5023	5023	2790			
Grp Volume(v), veh/h	95	1782	616	446	1975	0	1075	1075	942			
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1702	0	1674	1674	1395			
Q Serve(g_s), s	6.3	28.5	27.6	14.4	36.0	0.0	24.3	24.3	10.6			
Cycle Q Clear(g_c), s	6.3	28.5	27.6	14.4	36.0	0.0	24.3	24.3	10.6			
Prop In Lane	1.00		1.00	1.00		0.00	1.00	1.00	1.00			
Lane Grp Cap(c), veh/h	119	2450	1012	665	2680	0	1294	1294	1255			
V/C Ratio(X)	0.80	0.73	0.61	0.67	0.74	0.00	0.83	0.83	0.75			
Avail Cap(c_a), veh/h	171	2450	1012	665	2680	0	1386	1386	1306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	0.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	55.2	31.8	12.8	44.9	22.1	0.0	42.1	42.1	27.4			
Incr Delay (d2), s/veh	9.8	1.1	1.6	2.6	1.9	0.0	4.2	4.2	2.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(85%),veh/In	4.6	13.8	21.8	9.0	18.3	0.0	13.8	13.8	23.3			
Unsig. Movement Delay, s/veh		00.0	445	47 5	00.0	0.0	1/ 0	14.0	00.0			
LnGrp Delay(d),s/veh	65.0	33.0	14.5	47.5	23.9	0.0	46.3	46.3	29.8			
LnGrp LOS	E	С	В	D	С	Α	D	D	С			
Approach Vol, veh/h		2493			2421		2017	2017				
Approach Delay, s/veh		29.6			28.3		38.6	38.6				
Approach LOS		С			С		D	D				
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.5	69.7		37.8	29.8	52.4						
Change Period (Y+Rc), s	4.5	* 6.7		6.9	* 6.7	* 6.7						
Max Green Setting (Gmax), s	11.5	* 57		33.1	* 23	* 46						
Max Q Clear Time (g_c+I1), s	8.3	38.0		26.3	16.4	30.5						
Green Ext Time (p_c), s	0.1	17.7		4.7	1.0	14.5						
Intersection Summary												
HCM 6th Ctrl Delay			31.8									
HCM 6th LOS			С									

Notes

## HCM 6th Signalized Intersection Summary 4: Beverly Glen Bl & Olympic Bl

Movement         EBL         EBT         EBR         WBL         WBT         WBR         NBL         NBT         NBR         SBL         SBT         SBR           Lane Configurations         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         144         1         145         131         1636         133         183         2361         93         185         652         90         294         807         210           Initial Q (Db), veh         0         0         1.0		≯	+	7	4	+	•	1	1	1	1	ţ	~
Traffic Volume (veh/h)       213       1636       133       183       2361       93       185       652       90       294       807       210         Future Volume (veh/h)       213       1636       133       183       2361       93       185       652       90       294       807       210         Initial O (2b) veh       0	Movement	EBL	EBT	EBR	WBL		WBR	NBL	NBT	NBR	SBL	SBT	SBR
Future Volume (veh/h)       213       1636       133       183       2361       93       185       652       90       294       807       210         Initial Q (2b), veh       0			<u></u>			41117				1		<b>^</b>	1
Initial Q (Qb), veh       0       0       0       0       0       0       0       0       0       0       0       0         Perking Bux, Adj       1.00<	. ,												
Ped-Bike Adj(A_pbT)       1.00													
Parking Bus, Adj       1.00       1.	. ,		0			0			0			0	
Work Zone On Approach         No         No         No         No         No           Adj Sal Flow, vehvhin         1870			1.00			1.00			1 0 0			1.00	
Adj Sat Flow, veh/h/ln       1870       20       0.92       0.92       0.92       0.92       0.92       0.92       0.92       0.92       0.92       0.29       0.28       0.07       0.29       0.29       0.28       0.07       0.29       0.29       0.28       0.28       0.07       0.29       0.29       0.29       0.28       0.28       0.28       0.28       0.28       0.29       0.29       0.29       0.29       0.29       0.28       0.29       0.29       0.29       0.28       0.28       0.28       0.28       0.28       0.28       0.28       0.28       0.28 <th< td=""><td></td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td><td>1.00</td></th<>		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Adj Flow Rate, velvh       232       1778       145       199       2566       101       201       709       98       320       877       228         Peak Hour Factor       0.92       0.22       1.02       0.33       0.36       0.38       0.30       877       228       Gr Brain String       String St		1070		4070	1070		4070	1070		1070	4070		1070
Peak Hour Factor       0.92       0.93       0.50       0.11       1.81       1701       1585       0       0.51       0.31       9.32       1.50       35.4       35.4       5.0       16.1       3.9       6.0       2.09       9.99       9.02       0.02       1.00       1.00       1.00													
Percent Heavy Veh, %       2 <th2< th="">       2       <th2< th=""></th2<></th2<>													
Cap, veh/h       179       1895       154       188       2520       99       209       998       533       267       1037       551         Arrive On Green       0.06       0.39       0.39       0.39       0.39       0.06       0.28       0.28       0.28       0.07       0.29       0.29       0.29       0.28         Sat Flow, veh/h       1781       4813       391       1781       6399       251       1781       1555       1781       1555       1781       1555       1781       1555       1781       1777       1585       1781       1777       1585       1781       1777       1585       0.20       9.9       90       Qcle O Clear(g_c, s), s       5.0       31.9       32.1       5.0       35.4       35.4       5.0       16.1       3.9       6.0       20.9       9.9       Qcle O Clear(g_c, c), s       5.0       31.9       32.1       5.0       35.4       35.4       5.0       16.1       3.9       6.0       20.9       9.9       Qcle O Clear(g_c, veh/h       179       1340       709       188       1900       719       209       998       533       267       1037       551         V/C Ratio(X)       1													
Arrive On Green       0.06       0.39       0.39       0.06       0.39       0.39       0.06       0.28       0.28       0.07       0.29       0.29         Sat Flow, veh/h       1781       4813       391       1781       6399       251       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3554       1585       1781       3577       2185       029       929       209       020       20.9       9.9       9101       1.08       1.00       1													
Sat Flow, veh/h       1781       4813       391       1781       6399       251       1781       3554       1585       1781       3554       1585         Grp Volume(v), veh/h       232       1256       667       199       1933       734       201       709       98       320       877       228         Grp Sat Flow(s), veh/h       1781       1702       1800       1781       1609       1825       1781       1777       1585       1781       1777       1585       1781       1777       1585       1781       1777       1585       16.1       3.9       6.0       20.9       9.9       9       9       9.9       9       9.9       9       9.9       9       9.9       9       9.9       9.9       9       9.9       9.9       9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.9       9.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00													
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
Grp Sat Flow(s),veh/h/ln178117021800178116091825178117771585178117771585Q Serve(g_c), s5.031.932.15.035.435.45.016.13.96.020.99.9Cycle Q Clear(g_c), s5.031.932.15.035.435.45.016.13.96.020.99.9Prop In Lane1.000.221.000.141.001.001.001.001.00Lane Grp Cap(c), veh/h177134070918819007192099985332671037551V/C Ratio(X)1.300.940.941.061.021.020.960.710.181.200.850.41Avail Cap(c, a), veh/h1791340709188190071920911065812671145599HCM Platoon Ratio1.001.001.001.001.001.001.001.001.001.001.001.00Unform Delay (d), s/veh26.226.324.927.327.330.929.121.131.330.022.4Incr Delay (d2), s/veh168.213.622.182.825.239.010.80.20.095.31.00.1Indital D Delay (d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0													
O Serve(g_s), s       5.0       31.9       32.1       5.0       35.4       35.4       5.0       16.1       3.9       6.0       20.9       9.9         Cycle O Clear(g_c), s       5.0       31.9       32.1       5.0       35.4       35.4       5.0       16.1       3.9       6.0       20.9       9.9         Prop In Lane       1.00       0.22       1.00       0.14       1.00       1.00       1.00       1.00         Lane Grp Cap(c), veh/h       179       1340       709       188       1900       719       209       998       533       267       1037       551         V/C Ratio(X)       1.30       0.94       1.06       1.02       1.02       0.96       0.71       0.18       1.20       0.85       0.41         Avail Cap(c_a), veh/h       179       1340       709       188       1900       719       209       1106       581       267       1145       599         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       1.00       1.00       1.00       1.00       1.00       1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Cycle Q Clear(g_c), s       5.0       31.9       32.1       5.0       35.4       35.4       35.4       5.0       16.1       3.9       6.0       20.9       9.9         Prop In Lane       1.00       0.22       1.00       0.14       1.00       <													
Prop In Lane       1.00       0.22       1.00       0.14       1.00       1.00       1.00       1.00         Lane Grp Cap(c), veh/h       179       1340       709       188       1900       719       209       998       533       267       1037       551         V/C Ratio(X)       1.30       0.94       0.94       1.06       1.02       1.02       0.96       0.71       0.18       1.20       0.85       0.41         Avail Cap(c_a), veh/h       179       1340       709       188       1900       719       209       1106       581       267       1145       599         HCM Platoon Ratio       1.00       1.01       1.01       1.01													
Lane Grp Cap(c), veh/h       179       1340       709       188       1900       719       209       998       533       267       1037       551         V/C Ratio(X)       1.30       0.94       0.94       1.06       1.02       1.02       0.96       0.71       0.18       1.20       0.85       0.41         Avail Cap(c_a), veh/h       179       1340       709       188       1900       719       209       1106       581       267       1145       599         HCM Platoon Ratio       1.00       1.01 <td< td=""><td></td><td></td><td>31.9</td><td></td><td></td><td>35.4</td><td></td><td></td><td>16.1</td><td></td><td></td><td>20.9</td><td></td></td<>			31.9			35.4			16.1			20.9	
V/C Ratio(X)       1.30       0.94       0.94       1.06       1.02       1.02       0.96       0.71       0.18       1.20       0.85       0.41         Avail Cap(c_a), veh/h       179       1340       709       188       1900       719       209       1106       581       267       1145       599         HCM Platoon Ratio       1.00 <td></td> <td></td> <td>1240</td> <td></td> <td></td> <td>1000</td> <td></td> <td></td> <td>000</td> <td></td> <td></td> <td>1007</td> <td></td>			1240			1000			000			1007	
Avail Cap(c_a), veh/h1791340709188190071920911065812671145599HCM Platoon Ratio1.00													
HCM Platon Ratio1.001.	. ,												
Upstream Filter(I)1.001.001.001.001.001.001.000.090.090.090.170.170.17Uniform Delay (d), s/veh24.026.226.324.927.327.330.929.121.131.330.022.4Incr Delay (d2), s/veh168.213.622.182.825.239.010.80.20.095.31.00.1Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/In15.018.721.79.421.827.73.17.51.812.210.04.4Unsig. Movement Delay, s/veh1192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp Delay(d), s/veh192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp LOSFDDFFFDCCFCCApproach Vol, veh/h215528661008142511.4142511.4142511.41425Approach LOSEECD51.1CD51.114.051.114.052.114.052.140.055.240.055.14.0*5.240.0*5.14.0*5.240.0*5.140.0													
Uniform Delay (d), s/veh24.026.226.324.927.327.330.929.121.131.330.022.4Incr Delay (d2), s/veh168.213.622.182.825.239.010.80.20.095.31.00.1Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.00.00.00.00.0%ile BackOfQ(85%), veh/ln15.018.721.79.421.827.73.17.51.812.210.04.4Unsig. Movement Delay, s/veh192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp Delay(d), s/veh192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp LOSFDDFFFDCCFCCApproach Vol, veh/h215528661008142511.114.511.114.511.114.5Approach LOSEECDDFFDDCCFDDTimer - Assigned Phs1234567814.2514.015.214.015.214.015.214.015.214.015.214.015.214.015.214.015.214.015.2													
Incr Delay (d2), s/veh       168.2       13.6       22.1       82.8       25.2       39.0       10.8       0.2       0.0       95.3       1.0       0.1         Initial Q Delay(d3), s/veh       0.0 <td></td>													
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$													
%ile BackOfQ(85%),veh/ln15.018.721.79.421.827.73.17.51.812.210.04.4Unsig. Movement Delay, s/veh192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp Delay(d),s/veh192.339.848.4107.752.466.241.729.321.1126.631.022.5LnGrp LOSFDDFFFDCCFCCApproach Vol, veh/h2155286610081425Approach Delay, s/veh58.859.831.051.1Approach LOSEECDTimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s9.040.59.031.59.040.510.030.5Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+11), s7.037.47.022.97.034.18.018.1													
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       192.3       39.8       48.4       107.7       52.4       66.2       41.7       29.3       21.1       126.6       31.0       22.5         LnGrp LOS       F       D       D       F       F       F       D       C       C       F       C       C         Approach Vol, veh/h       2155       2866       1008       1425         Approach Delay, s/veh       58.8       59.8       31.0       51.1         Approach LOS       E       E       C       D       D         Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       9.0       40.5       9.0       31.5       9.0       40.5       10.0       30.5         Change Period (Y+Rc), s       4.0       * 5.1       4.0       * 5.2       4.0       * 5.1       4.0       * 5.2         Max Green Setting (Gmax), s       5.0       * 33       5.0       * 29       5.0       * 33       6.0       * 28         Max Q Clear Time (g_c+I1), s       7.0       37.4       7.0       22.9       7.0       34.1													
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			10.7	21.7	7.4	21.0	21.1	5.1	7.5	1.0	12.2	10.0	т.т
LnGrp LOS         F         D         D         F         F         D         C         C         F         C         D         D         f         F         F         D         C         C         C         C         C         Approach L0S         S	0		39.8	48.4	107 7	524	66.2	417	29.3	21.1	126.6	31.0	22 5
Approach Vol, veh/h2155286610081425Approach Delay, s/veh $58.8$ $59.8$ $31.0$ $51.1$ Approach LOSEECDTimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s9.0 $40.5$ 9.0 $31.5$ 9.0 $40.5$ 10.0 $30.5$ Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+I1), s7.037.47.022.97.034.18.018.1													
Approach Delay, s/veh58.859.831.051.1Approach LOSEECDTimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s9.040.59.031.59.040.510.030.5Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+I1), s7.037.47.022.97.034.18.018.1	· · · ·	•		D	•		•			<u> </u>			
Approach LOSEECDTimer - Assigned Phs12345678Phs Duration (G+Y+Rc), s9.040.59.031.59.040.510.030.5Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+I1), s7.037.47.022.97.034.18.018.1													
Timer - Assigned Phs       1       2       3       4       5       6       7       8         Phs Duration (G+Y+Rc), s       9.0       40.5       9.0       31.5       9.0       40.5       10.0       30.5         Change Period (Y+Rc), s       4.0       * 5.1       4.0       * 5.2       4.0       * 5.1       4.0       * 5.2         Max Green Setting (Gmax), s       5.0       * 33       5.0       * 29       5.0       * 33       6.0       * 28         Max Q Clear Time (g_c+11), s       7.0       37.4       7.0       22.9       7.0       34.1       8.0       18.1			-			-			0				
Phs Duration (G+Y+Rc), s9.040.59.031.59.040.510.030.5Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+I1), s7.037.47.022.97.034.18.018.1		1		n	4		/	7				D	
Change Period (Y+Rc), s4.0* 5.14.0* 5.24.0* 5.14.0* 5.2Max Green Setting (Gmax), s5.0* 335.0* 295.0* 336.0* 28Max Q Clear Time (g_c+I1), s7.037.47.022.97.034.18.018.1	¥							-					
Max Green Setting (Gmax), s         5.0         * 33         5.0         * 29         5.0         * 33         6.0         * 28           Max Q Clear Time (g_c+11), s         7.0         37.4         7.0         22.9         7.0         34.1         8.0         18.1	· · · · · · · · · · · · · · · · · · ·												
Max Q Clear Time (g_c+l1), s 7.0 37.4 7.0 22.9 7.0 34.1 8.0 18.1	<b>o</b> , ,												
Green Ext Time (p_c), s 0.0 0.0 0.0 3.4 0.0 0.0 0.0 3.7													
		0.0	0.0	0.0	J.4	0.0	0.0	0.0	5.7				
Intersection Summary				E 1 0									
HCM 6th Ctrl Delay 54.0													
HCM 6th LOS D	HUM 6th LUS			D									

#### Notes

	≯	-	+	•	1	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘ	<b>^</b>	<b>^</b>	1	<u>ነ</u> ካ	77
Traffic Volume (veh/h)	229	1772	2215	188	250	348
Future Volume (veh/h)	229	1772	2215	188	250	348
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	Ū	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1.00	No	No	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	249	1926	2408	204	272	378
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
		0.92				0.92
Percent Heavy Veh, %	2		2	2	2	
Cap, veh/h	269	3086	2462	764	960	992
Arrive On Green	0.16	1.00	0.48	0.48	0.28	0.28
Sat Flow, veh/h	3456	5274	5274	1585	3456	2790
Grp Volume(v), veh/h	249	1926	2408	204	272	378
Grp Sat Flow(s),veh/h/ln	1728	1702	1702	1585	1728	1395
Q Serve(g_s), s	6.4	0.0	41.6	6.9	5.6	9.1
Cycle Q Clear(g_c), s	6.4	0.0	41.6	6.9	5.6	9.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	269	3086	2462	764	960	992
V/C Ratio(X)	0.93	0.62	0.98	0.27	0.28	0.38
Avail Cap(c_a), veh/h	269	3086	2462	764	960	992
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.93	0.93
Uniform Delay (d), s/veh	37.7	0.0	22.8	13.8	25.5	21.6
Incr Delay (d2), s/veh	35.8	1.0	13.7	0.9	0.7	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	5.8	0.5	22.8	4.2	3.9	10.7
Unsig. Movement Delay, s/ve		0.0	22.0	٦.٢	3.7	10.7
LnGrp Delay(d),s/veh	73.6	1.0	36.5	14.7	26.2	22.7
LIGIP Delay(u), siven			30.5 D			22.7 C
	E	A		В	C	U
Approach Vol, veh/h		2175	2612		650	
Approach Delay, s/veh		9.3	34.8		24.1	
Approach LOS		А	С		С	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		29.8	11.0	49.2
Change Period (Y+Rc), s		* 5.8		* 4.8	4.0	* 5.8
Max Green Setting (Gmax), s	5	* 54		* 25	7.0	* 43
Max Q Clear Time (g_c+I1), s	S	2.0		11.1	8.4	43.6
Green Ext Time (p_c), s		26.0		2.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			23.3			
HCM 6th LOS			23.3 C			

#### Notes

	≯	-	+	•	1	~
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u> </u>	<b>^</b>	<b>††</b>	- WBR	<u>ነ</u> ካ	<u> </u>
Traffic Volume (veh/h)	541	1128	1822	266	377	442
Future Volume (veh/h)	541	1120	1822	266	377	442
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	Ū	Ŭ	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	588	1226	1980	289	410	480
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	3347	1653	238	806	766
Arrive On Green	0.25	0.66	0.37	0.37	0.23	0.23
Sat Flow, veh/h	1781	5274	4677	649	3456	1585
Grp Volume(v), veh/h	588	1226	1488	781	410	480
Grp Sat Flow(s), veh/h/ln	1781	1702	1702	1754	1728	1585
	22.5	9.8	33.0	33.0	9.3	20.2
Q Serve( $g_s$ ), s	22.5 22.5		33.0 33.0	33.0 33.0	9.3 9.3	20.2
Cycle Q Clear(g_c), s Prop In Lane	22.5 1.00	9.8	55.0	33.0 0.37	9.3 1.00	20.2
•	445	2217	1040	643		766
Lane Grp Cap(c), veh/h		3347	1248		806	
V/C Ratio(X)	1.32	0.37	1.19	1.22	0.51	0.63
Avail Cap(c_a), veh/h	445	3347	1248	643	806	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.47	0.47	0.44	0.44
Uniform Delay (d), s/veh	33.7	7.0	28.5	28.5	30.0	17.2
Incr Delay (d2), s/veh	159.3	0.3	90.4	103.8	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	40.0	5.0	36.1	40.5	5.2	21.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	193.0	7.3	118.9	132.3	30.2	17.9
LnGrp LOS	F	А	F	F	С	В
Approach Vol, veh/h		1814	2269		890	
Approach Delay, s/veh		67.5	123.5		23.6	
Approach LOS		E	F		С	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	38.0		26.0		64.0
Change Period (Y+Rc), s	3.5	* 5		* 5		* 5
Max Green Setting (Gmax), s	22.5	* 33		* 21		* 59
Max Q Clear Time (g_c+I1), s	24.5	35.0		22.2		11.8
Green Ext Time (p_c), s	0.0	0.0		0.0		12.2
Intersection Summary						
HCM 6th Ctrl Delay			85.2			
HCM 6th LOS						
			'			

Notes

## HCM 6th Signalized Intersection Summary 7: Pico Bl & Kerwood Ave

	≯	+	$\mathbf{F}$	4	+	•	1	1	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		<u> </u>	<u> ተተ</u> ጮ			4			- <del>4</del> >	
Traffic Volume (veh/h)	26	1425	56	57	2042	67	10	7	25	42	4	74
Future Volume (veh/h)	26	1425	56	57	2042	67	10	7	25	42	4	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1 00	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	1070	No 1870	1070	1070	No	1070	1070	No 1870	1070	1070	No	1070
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1870 28	1870	1870 61	1870 62	1870 2220	1870 73	1870 11	1870	1870 27	1870 46	1870 4	1870 80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	40 0.92	4 0.92	0.92
Percent Heavy Veh, %	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Cap, veh/h	169	2789	110	192	2810	92	147	120	309	211	40	314
Arrive On Green	0.55	0.55	0.55	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	161	5040	198	315	5078	166	293	359	927	469	120	942
Grp Volume(v), veh/h	28	1046	564	62	1486	807	46	0	0	130	0	0
Grp Sat Flow(s), veh/h/ln	161	1702	1835	315	1702	1840	1579	0	0	1531	0	Ű
Q Serve(g_s), s	8.4	17.8	17.8	9.9	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	8.4	17.8	17.8	27.7	0.0	0.0	1.7	0.0	0.0	5.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.09	0.24		0.59	0.35		0.62
Lane Grp Cap(c), veh/h	169	1884	1015	192	1884	1018	576	0	0	564	0	0
V/C Ratio(X)	0.17	0.56	0.56	0.32	0.79	0.79	0.08	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	169	1884	1015	192	1884	1018	576	0	0	564	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.48	0.48	0.48	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	13.0	13.0	5.0	0.0	0.0	20.6	0.0	0.0	21.7	0.0	0.0
Incr Delay (d2), s/veh	1.9	1.1	2.0	2.1	1.7	3.1	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/In	0.7	9.1	10.0	0.9	0.8	1.6	1.2	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	12.8	14.0	15.0	7.1	1.7	3.1	20.8	0.0	0.0	21.9	0.0	0.0
Lingip Delay(d), siven	12.8 B	14.0 B	15.0 B	7.1 A	1.7 A	3.1 A	20.8 C	0.0 A	0.0 A	21.9 C	0.0 A	0.0 A
Approach Vol, veh/h	D	1638	D	A	2355	A	C	46	<u>A</u>	C	130	<u> </u>
Approach Delay, s/veh		14.3			2300			20.8			21.9	
Approach LOS		14.5 B			2.3 A			20.0 C			21.9 C	
				4	Π	1					U	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		* 4.8 * 50		* 5.4 * 30		* 4.8 * 50		* 5.4 * 30				
Max Green Setting (Gmax), s Max Q Clear Time (q_c+l1), s		* 50 29.7		30 7.2		50 19.8		30 3.7				
Green Ext Time (p_c), s		29.7 19.0		0.7		23.8		3.7 0.2				
		17.0		0.7		23.0		0.2				
Intersection Summary			7.0									
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			А									

Notes

## HCM 6th Signalized Intersection Summary 8: Motor Ave & Pico Bl

	۶	-	$\mathbf{i}$	*	+	•	1	†	1	1	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	<u></u> ↑↑₽		ሻ	<u>ተተ</u> ኑ		<u>٦</u>		77	ሻ		1
Traffic Volume (veh/h)	33	1227	191	583	1783	32	172	0	458	194	0	325
Future Volume (veh/h)	33	1227	191	583	1783	32	172	0	458	194	0	325
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	0	1870	1870	0	1870
Adj Flow Rate, veh/h	36	1334	208	634	1938	35	187	0	498	211	0	353
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	0	2	2	0	2
Cap, veh/h	59	2253	351	396	3590	65	227	0	0	227	0	0
Arrive On Green	0.01	0.17	0.17	0.22	0.70	0.70	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	4455	695	1781	5164	93	1781	187		1781	211	
Grp Volume(v), veh/h	36	1019	523	634	1277	696	187	45.6		211	79.4	
Grp Sat Flow(s),veh/h/ln	1781	1702	1745	1781	1702	1854	1781	D		1781	E	
Q Serve(g_s), s	1.8	24.9	24.9	20.0	16.5	16.5	9.2			10.6		
Cycle Q Clear(g_c), s	1.8	24.9	24.9	20.0	16.5	16.5	9.2			10.6		
Prop In Lane	1.00	4700	0.40	1.00	00//	0.05	1.00			1.00		
Lane Grp Cap(c), veh/h	59	1722	883	396	2366	1288	227			227		
V/C Ratio(X)	0.61	0.59	0.59	1.60	0.54	0.54	0.82			0.93		
Avail Cap(c_a), veh/h	99	1722	883	396	2366	1288	445			227		
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	43.9 7.9	28.9 1.2	28.9 2.3	35.0	6.7	6.7	38.3			38.9		
Incr Delay (d2), s/veh	0.0	0.0	2.3 0.0	282.3	0.9	1.6 0.0	7.3 0.0			40.6 0.0		
Initial Q Delay(d3),s/veh %ile BackOfQ(85%),veh/In	0.0	14.7	15.3	0.0 56.2	0.0 7.5	8.4	6.6			9.9		
Unsig. Movement Delay, s/veh		14.7	10.5	J0.Z	7.5	0.4	0.0			7.7		
LnGrp Delay(d), s/veh	51.9	30.1	31.2	317.3	7.6	8.3	45.6			79.4		
LINGIP LOS	D	50.1 C	C	517.5 F	7.0 A	0.5 A	43.0 D			79.4 E		
Approach Vol, veh/h	U	1578	U	1	2607		U			<u> </u>		
Approach Delay, s/veh		31.0			83.1							
Approach LOS		51.0 C			63.1 F							
			•			,	_					
Timer - Assigned Phs	1	2	3		5	6	155					
Phs Duration (G+Y+Rc), s	7.0	67.6	15.5		24.0	50.5	15.5					
Change Period (Y+Rc), s	4.0	* 5	4.0		4.0	* 5	4.0					
Max Green Setting (Gmax), s	5.0	* 39	22.5		20.0	* 24	7.0					
Max Q Clear Time (g_c+I1), s	3.8	18.5	11.2		22.0	26.9	12.6					
Green Ext Time (p_c), s	0.0	14.1	0.4		0.0	0.0	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			63.5									
HCM 6th LOS			E									
N												

Notes

6.1

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ኘ	<u>ቀ</u> ቀኑ		٦	<u>ቀ</u> ቀኑ			4			4		
Traffic Vol, veh/h	73	2431	6	4	2504	7	8	0	8	11	0	75	
Future Vol, veh/h	73	2431	6	4	2504	7	8	0	8	11	0	75	
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	49	-	-	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	79	2642	7	4	2722	8	9	0	9	12	0	82	

Major/Minor	Major1		N	/lajor2		1	Ainor1		ſ	Minor2				
Conflicting Flow All	2730	0	0	2649	0	0	3901	5542	1325	3949	5541	1365		
Stage 1	-	-	-	-	-	-	2804	2804	-	2734	2734	-		
Stage 2	-	-	-	-	-	-	1097	2738	-	1215	2807	-		
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14		
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-		
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92		
Pot Cap-1 Maneuver	~ 53	-	-	58	-	-	~ 4	0	125	~ 3	0	118		
Stage 1	-	-	-	-	-	-	10	39	-	~ 11	43	-		
Stage 2	-	-	-	-	-	-	205	43	-	172	39	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	~ 53	-	-	58	-	-	-	0	125	-	0	118		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-		
Stage 1	-	-	-	-	-	-	10	0	-	~ 11	40	-		
Stage 2	-	-	-	-	-	-	59	40	-	-	0	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	12.4			0.1										
HCM LOS							-			-				
Minor Lane/Major Mvn	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)		-	~ 53	-	-	58	-	-	-					
HCM Lane V/C Ratio		-	1.497	-	-	0.075	-	-	-					
HCM Control Delay (s)	)	-\$	426.2	-	-	72	-	-	-					
HCM Lane LOS		-	F	-	-	F	-	-	-					
HCM 95th %tile Q(veh	ı)	-	7.3	-	-	0.2	-	-	-					
Notes														
~: Volume exceeds ca	pacity	\$ De	lav exc	eeds 30	<u> 205</u>	+: Com	putatio	Not D	efined	*· All	maior	volume ir	n platoon	

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined \*: All major volume in platoon

04 FP PM 5:00 pm 07/28/2020 Future with Project Conditions PM

#### Intersection

Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ተተቡ		٦	<b>*††</b>	Y	
Traffic Vol, veh/h	2428	5	27	2438	10	22
Future Vol, veh/h	2428	5	27	2438	10	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	86	-	0	-
Veh in Median Storage	e,# 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	2639	5	29	2650	11	24

Major/Minor	Major1	Ν	/lajor2	ſ	Minor1				
Conflicting Flow All	0	0	2644	0	3760	1322			
Stage 1	-	-	-	-	2642	-			
Stage 2	-	-	-	-	1118	-			
Critical Hdwy	-	-	5.34	-	5.74	7.14			
Critical Hdwy Stg 1	-	-	-	-	6.64	-			
Critical Hdwy Stg 2	-	-	-	-	6.04	-			
Follow-up Hdwy	-	-	3.12	-	3.82	3.92			
Pot Cap-1 Maneuver	-	-	58	-	~ 10	126			
Stage 1	-	-	-	-	22	-			
Stage 2	-	-	-	-	247	-			
Platoon blocked, %	-	-		-					
Mov Cap-1 Maneuver		-	58	-	~ 5	126			
Mov Cap-2 Maneuver		-	-	-	18	-			
Stage 1	-	-	-	-	22	-			
Stage 2	-	-	-	-	124	-			
Approach	EB		WB		NB				
HCM Control Delay, s	; 0		1.3		216.7				
HCM LOS					F				
Minor Lane/Major Mvr	mt I	NBLn1	EBT	EBR	WBL	WBT			
Capacity (veh/h)		44	-	-	58	-			
HCM Lane V/C Ratio		0.791	-	-	0.506	-			
HCM Control Delay (s	5)	216.7	-		118.7	-			
HCM Lane LOS	/	F	-	-	F	-			
HCM 95th %tile Q(ver	h)	3.1	-	-	2	-			
	,				_				
Notes						-			
<ul> <li>Volume exceeds ca</li> </ul>	apacity	\$: De	lay exc	eeds 3	00s	+: Com	outation Not Defined	*: All major volume in pla	toon

04 FP PM 5:00 pm 07/28/2020 Future with Project Conditions PM

#### Intersection

Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		et 👘			÷
Traffic Vol, veh/h	0	7	25	0	0	17
Future Vol, veh/h	0	7	25	0	0	17
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	0	8	27	0	0	18

Major/Minor	Minor1	N	Major1	Ν	/lajor2	
Conflicting Flow All	45	27	0	0	27	0
Stage 1	27	-	-	-	-	-
Stage 2	18	-	-	-	-	-
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	965	1048	-	-	1587	-
Stage 1	996	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	965	1048	-	-	1587	-
Mov Cap-2 Maneuver	· 965	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	NBRW	/BLn1	SBL	SBT
Capacity (veh/h)	-	-	1048	1587	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	А	А	-
HCM 95th %tile Q(veh)	-	-	0	0	-

# **Appendix H.2**

Los Angeles Department of Transportation Assessment Letter Da FORM GEN. 160A (Rev. 1/82)

### CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

10328 West Bellwood Avenue DOT Case No. WLA19-107979

Date: April 15, 2021

To:

Suzan Jimenez, Administrative Clerk Department of City Planning

From:

Robert Sanchez, Transportation Engineer Department of Transportation

Subject:

TRANSPORTATION ASSESSMENT FOR THE PROPOSED ELDERCARE FACILITY PROJECT TO BE LOCATED AT 10328 WEST BELLWOOD AVENUE (ENV-2018-7182-EIR/ ZA-2018-7183-ELD-SPR)

The Department of Transportation (DOT) has reviewed the transportation assessment prepared by Gibson Transportation Consulting, Inc., dated February 2021 with a subsequent revision dated April 2021, for the proposed senior residential community project located at 10328 West Bellwood Avenue. In compliance with Senate Bill (SB) 743 and the California Environmental Quality Act (CEQA), a vehicle miles traveled analysis is required to identify the project's ability to promote the reduction of greenhouse gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

The proposed project is for the construction of a 192-unit senior residential development consisting of 71 independent living units, 75 assisted living units, and 46 memory care units as well as 50,462 squarefeet of ancillary general common areas and amenities for residents to be located within Council District 5 in West Los Angeles. The project site currently contains 112 existing multifamily residential apartment units on approximately 2.2 acres comprised of nine contiguous lots on the south side of Bellwood Avenue and four contiguous lots on the north side of Bellwood Avenue which will be removed to allow for the new development. The project site includes parcels located generally north-west and east-south of Bellwood Avenue, as well as a portion of Bellwood Avenue that bifurcates the project site. The portion of Bellwood Avenue that currently bifurcates the project site would be vacated and realigned as a private street with through public access maintained from both sides of Bellwood Avenue. The project is to provide a total of 140 vehicle parking spaces within a two-level underground parking garage and 72 bicycle parking spaces (24 short-term and 48 long-term) per LAMC. Vehicular access will be provided via a new two-way driveway on the south side of Bellwood Avenue as illustrated in **Attachment "A**". The project is expected to be completed by 2023.

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineer (ITE) Trip Generation Manual, 9<sup>th</sup> Edition as well as applying trip generation adjustments when applicable, based on socioeconomic data and the built environment factors of the project's surroundings, it was determined that the project does not exceed the net 250 daily vehicle trips threshold. A copy of the LA VMT Calculator screening page with the corresponding net daily trip estimation is provided as **Attachment "B"** to this report. The project's transportation analysis voluntarily included further discussion of the transportation impact thresholds:

- T-1 Conflicting with plans, programs, ordinances, or policies
- T-2.1 Causing substantial vehicle miles traveled
- T-2.2 Substantially inducing additional automobile travel
- T-3 Substantially increasing hazards due to a geometric design feature or incompatible use.

A project's impacts per thresholds T-2.1 is determined by using the VMT calculator and are fully discussed in the transportation analysis. Additionally, the assessment determined that the project would not have a significant transportation impact under any of the above thresholds. DOT concurs with the conclusion of the analysis that the project trip generation does not meet the net daily trip threshold to require a VMT analysis. Therefore, <u>DOT will not require further transportation analysis for this project</u>.

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that the lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analysis were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. In accordance with this authority, the project has also voluntarily completed an access and circulation analysis using a "Level of Service" screening methodology that indicates that the trips generated by the development will not likely result in adverse circulation conditions at several locations. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis tables that summarizes these potential deficiencies is provided as **Attachment "C"** to this report.

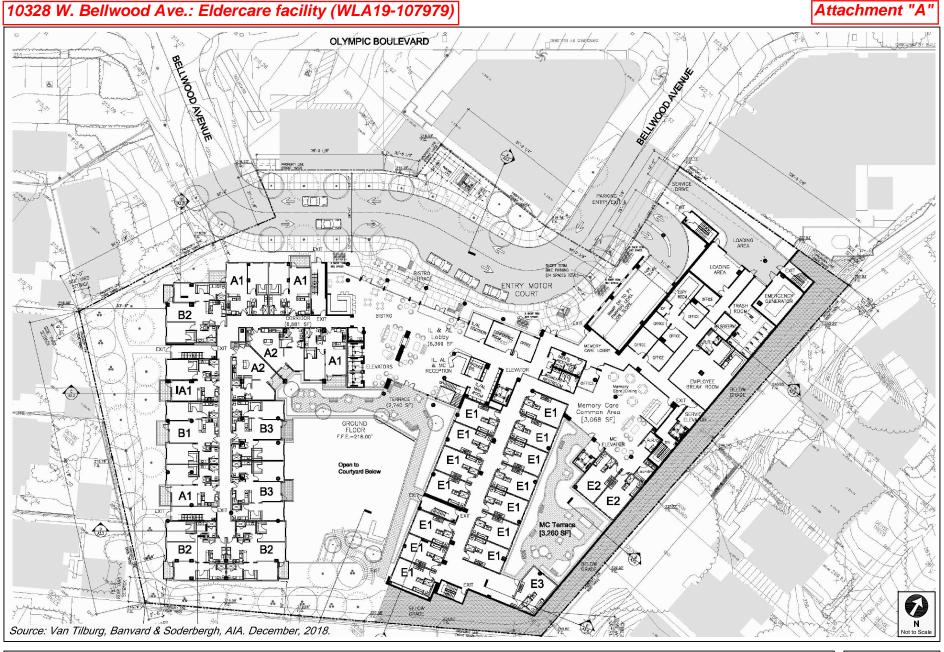
Please note that the proposed site plan is acceptable to DOT; however, this DOT assessment does not constitute approval of the driveway dimensions, final location, and internal circulation scheme. Those require separate review and approval and should be coordinated with DOT's West LA/ Coastal/ San Pedro Development Review section (7166 West Manchester Avenue, Room #11, at (213) 485-1062). The applicant is also advised to contact BOE for any required highway dedication and physical street improvements for the proposed project.

If you have any questions, please contact me or Pedro Ayala at (213) 485-1062 or via email.

RS:pa

Attachments

c: Cesar Moreno, DCP Daniel Skolnick, Jay Greenstein, Council District No. 5 Mike Patonai, Oscar Gutierrez, BOE Rudy Guevara, DOT Emily Wong, Gibson Transportation Consulting, Inc. **Gibson** transportation consulting. Inc.



PROJECT SITE PLAN

FIGURE

## **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 Existing Land Use	
Ducies the Capital Decidential Lining at the Delivered	ie Unit
Project: Senior Residential Living at the Bellwood Housing   Multi-Family 112	DU
Scenario: Project WWW Housing   Multi-Family 112	DU
Address: 10366 W BELLWOOD AVE, 90064	
Click here to add a single custom land use type (will be included by the streng of the	Jse
	DU I
Housing   Multi-Family	20
Housing   Multi-Family       (custom) Eldercare   Daily     533       (custom) Eldercare   HBW-Attraction Split     45	Trips Percent

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?

|--|

Land Use Type		Va	alue	Unit	
Housing   Multi-Family	•			DU	- 1
(custom) Eldercare   Daily		533	Tri	os	
(custom) Eldercare   HBW-Attraction Split		45	Pe	rcent	
(custom) Eldercare   HBO-Attraction Split		10	Pe	rcent	
(custom) Eldercare   NHB-Attraction Split		20	Pe	rcent	
(custom) Eldercare   HBW-Production Split		5	Pe	rcent	
(custom) Eldercare   HBO-Production Split		10	Pe	rcent	
(custom) Eldercare   NHB-Production Split		10	Pe	rcent	
(custom) Eldercare   Daily		231	Re	sidents	
(custom) Eldercare   Daily		88	Em	ployees	
(custom) Eldercare   Daily		Non-Ret	ail Re	tail/Non-R	e

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	
	477	402	
	Daily Vehicle Trips	Daily Vehicle Trips	
	3,153	3,192	
	Daily VMT	Daily VMT	
	Tier 1 Screen	ing Criteria	
Project will have less residential units compared to existing residential units & is within one-half in the mile of a fixed-rail station.			
	Tier 2 Screen	ing Criteria	
The net increase in daily trips < 250 trips Net Daily Trip			
	The net increase in daily VM	AT ≤ 0 39 Net Daily	VMT
	The proposed project consi land uses ≤ 50,000 square f		
	The proposed project p		



### 10328 W. Bellwood Ave.: Eldercare facility (WLA19-107979)

## **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**



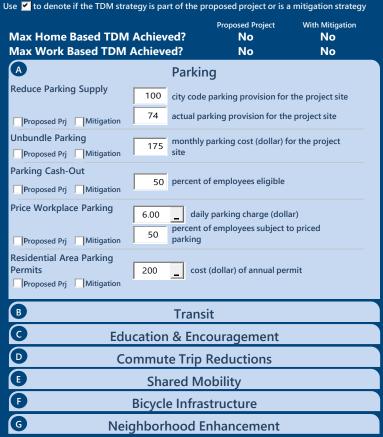
## **Project Information**



Proposed Project Land Use Type	Value	Unit
(custom) Eldercare   Daily	533	Trips
(custom) Eldercare   HBW-Attraction Split	45	Percent
(custom) Eldercare   HBO-Attraction Split	10	Percent
(custom) Eldercare   NHB-Attraction Split	20	Percent
(custom) Eldercare   HBW-Production Split	5	Percent
(custom) Eldercare   HBO-Production Split	10	Percent
(custom) Eldercare   NHB-Production Split	10	Percent
(custom) Eldercare   Daily	231	Residents
(custom) Eldercare   Daily	88	Employees
(custom) Eldercare   Daily	Non-Retail	Retail/Non-Re

## **TDM Strategies**

Select each section to show individual strategies



## **Analysis Results**

400 Daily Vehicle Trips 3,171 Daily VMT N/A Houseshold VMT per Capita N/A Work VMT
3,171 Daily VMT N/A Houseshold VMT per Capita N/A Work VMT
Daily VMT N/A Houseshold VMT per Capita N/A Work VMT
Daily VMT N/A Houseshold VMT per Capita N/A Work VMT
Houseshold VMT per Capita <b>N/A</b> Work VMT
per Capita <b>N/A</b> Work VMT
N/A Work VMT
Work VMT
E 1
per Employee
1T Impact?
lousehold: N/A
Threshold = 7.4
15% Below APC
Work: N/A
Threshold = 11.1

Measuring the Miles

## 10328 W. Bellwood Ave.: Eldercare facility (WLA19-107979)

No	Intersection	Peak Hour	Existing		Existing with Project	
			Delay	LOS	Delay	LOS
1.	Beverly Glen Boulevard &	AM	68.1	E	68.1	E
[a]	Santa Monica Boulevard	PM	56.9	E	56.8	E
2.	Century Park West &	AM	14.5	В	13.9	В
[a]	Santa Monica Boulevard	PM	22.3	С	22.1	С
3.	Avenue of the Stars &	AM	28.5	С	35.6	D
[a]	Santa Monica Boulevard	PM	27.2	С	34.0	С
4.	Beverly Glen Boulevard &	AM	94.1	F	94.4	F
[a]	Olympic Boulevard	PM	42.6	D	41.8	D
5.	Century Park West &	AM	31.3	С	31.3	С
[a]	Olympic Boulevard	PM	18.7	В	18.7	В
6.	Beverly Glen Boulevard &	AM	58.4	E	58.5	E
[a]	Pico Boulevard	PM	61.3	E	61.1	E
7.	Kerwood Avenue &	AM	11.6	В	11.5	В
[a]	Pico Boulevard	PM	7.5	А	7.5	A
8.	Motor Avenue &	AM	23.1	С	23.0	С
[a]	Pico Boulevard	PM	28.7	С	28.7	С

#### TABLE 10 EXISTING WITH PROJECT CONDITIONS (YEAR 2019) INTERSECTION LEVELS OF SERVICE

#### Notes

Delay is measured in seconds per vehicle

LOS = Level of service

[a] Signalized intersection analyzed based on the HCM Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

No	Intersection	Peak Hour	Future without Project		Future with Project	
NU			Delay	LOS	Delay	LOS
1.	Beverly Glen Boulevard &	AM	113.6	F	113.6	F
[a]	Santa Monica Boulevard	PM	88.4	F	88.5	F
2.	Century Park West &	AM	12.7	В	14.4	В
[a]	Santa Monica Boulevard	PM	23.7	С	23.6	С
3.	Avenue of the Stars &	AM	66.2	E	61.4	E
[a]	Santa Monica Boulevard	PM	33.4	С	31.8	С
4.	Beverly Glen Boulevard &	AM	117.1	F	117.3	F
[a]	Olympic Boulevard	PM	54.2	D	54.0	D
5.	Century Park West &	AM	39.6	D	39.4	D
[a]	Olympic Boulevard	PM	23.4	С	23.3	С
6.	Beverly Glen Boulevard &	AM	66.7	E	66.8	E
[a]	Pico Boulevard	PM	85.6	F	85.2	F
7.	Kerwood Avenue &	AM	21.5	С	14.3	В
[a]	Pico Boulevard	PM	7.9	A	7.9	A
8.	Motor Avenue &	AM	33.1	С	21.4	С
[a]	Pico Boulevard	PM	63.4	E	63.5	E

#### TABLE 11 FUTURE WITH PROJECT CONDITIONS (YEAR 2023) INTERSECTION LEVELS OF SERVICE

#### Notes

Delay is measured in seconds per vehicle

LOS = Level of service

[a] Signalized intersection analyzed based on the HCM Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

# **Appendix H.3**

**Transportation Analysis for Project Alternatives** 



#### MEMORANDUM

RE:	Transportation Analysis of Project Alternatives for the Senior Residential Community at the Bellwood Los Angeles, California	<b>Ref:</b> J1661
DATE:	May 11, 2021	
FROM:	Sarah M. Drobis, P.E., Emily Wong, P.E., and Janet Ye, EIT	
TO:	Stephanie Eyestone-Jones, Eyestone Environmental	

This memorandum presents the findings of the California Environmental Quality Act (CEQA) analysis of the alternatives (Alternatives) to the proposed development of the Senior Residential Community at the Bellwood project (Project) in the City of Los Angeles, California (City). The analysis of Alternatives is based on the City's *Transportation Assessment Guidelines* (Los Angeles Department of Transportation [LADOT], July 2020) (TAG) addressing the CEQA guidelines and thresholds.

This CEQA analysis of Alternatives was prepared consistent with the methodology, assumptions, and analysis presented in *Transportation Assessment for the Senior Residential Community at the Bellwood Project, Los Angeles, California* (Gibson Transportation Consulting, Inc. [GTC], January 2021) (Transportation Assessment), where applicable.

#### PROJECT DESCRIPTION

As detailed in the Transportation Assessment, the Project proposes the development of a 192-unit eldercare facility consisting of 71 independent living units, 75 assisted living units, and 46 memory care units, as well as 50,463 square feet (sf) of ancillary common areas and amenities for residents. The existing 112 multi-family residential units on the Project Site would be removed to accommodate the Project. Access to the Project Site would be provided via one full-access driveway on Bellwood Avenue. Additionally, the portion of Bellwood Avenue that currently bifurcates the Project Site would be vacated and realigned as a private street, with access maintained from both sides of Bellwood Avenue. An entry motor court/vehicle turn-out area would be provided along Bellwood Avenue adjacent to the Project Site within the vacated portion of the roadway and would be located adjacent to the lobby area. A separate service driveway, providing access to the loading area, would be located on Bellwood Avenue east of the parking garage. Separate access for pedestrians and bicyclists would be provided via entrances along Bellwood Avenue.

A total of 140 parking spaces would be provided on-site within two subterranean parking levels. The Project would also provide 72 bicycle parking spaces on-site, including both short-term and long-term spaces.

The conceptual site plan for the Project is provided in Figure 1.

#### ALTERNATIVES

The following three Alternative land use configurations for the Project were identified:

- <u>Alternative 1, No Project Alternative</u> would maintain the existing 112 multi-family residential units currently occupying the site and no new development would occur. This Alternative would not generate additional vehicle trips and, therefore, a CEQA analysis for this Alternative was not conducted.
- <u>Alternative 2, Commercial/Residential Alternative</u> proposes a total of 60 multi-family residential units, 21,257 sf of retail, and 21,257 sf of office. The new residential units under Alternative 2 would not be designated senior housing units in an eldercare facility. Under Alternative 2, the portion of Bellwood Avenue that bifurcates the Project Site would remain a public street in its current alignment. A total of 247 vehicle parking spaces would be provided in one level of subterranean parking under the apartment building and two subterranean levels under the retail/office buildings. Alternative 2 would require less excavation than the Project.
- <u>Alternative 3, Senior Residential Alternative</u> proposes a total of 130 senior residential units. Alternative 3 would not include an eldercare facility. Under Alternative 3, the portion of Bellwood Avenue that bifurcates the Project Site would remain a public street in its current alignment. A total of 260 vehicle parking spaces would be provided in one subterranean parking level under the larger residential building and in one at grade level and one subterranean level for the remaining two residential buildings. Alternative 3 would require less excavation than the Project.

The conceptual site plan for Alternative 2 is provided in Figure 2, and Alternative 3 is depicted in Figure 3.

#### TRIP GENERATION

Consistent with the Transportation Assessment, trip generation estimates for each Alternative were developed using published rates from *Trip Generation Manual, 10<sup>th</sup> Edition* (Institute of Transportation Engineers, 2017). Table 1 provides a summary of the trip generation estimates for each Alternative, with specific detailed calculations discussed below.

#### Project

The trip generation estimates for the Project are detailed in Table 2 and demonstrate the Project is anticipated to generate -16 net morning peak hour trips (10 inbound, -26 outbound) and -9 net afternoon peak hour trips (-16 inbound, seven outbound).

#### Alternative 2

As detailed in Table 3, Alternative 2 would generate a total of 11 net new morning peak hour trips (21 inbound, -10 outbound) and 33 net new afternoon peak hour trips (four inbound, 29 outbound).

#### Alternative 3

As detailed in Table 4, Alternative 3 would generate -24 net morning peak hour trips (-2 inbound, -22 outbound) and -28 net afternoon peak hour trips (-20 inbound, -8 outbound).

# THRESHOLD T-1: CONFLICTING 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.

Consistent with the Project, each Alternative would be designed to generally conform with the applicable programs, plans, ordinances, or policies identified in Table 2-1.1 of the TAG related to the circulation system, including transit, roadways, bicycles, and pedestrian facilities. None of the Alternatives would preclude the City from implementing future improvements to serve the long-term mobility needs of the City. Therefore, none of the Alternatives would result in a significant impact under Threshold T-1.

Further, consistent with the Project, each Alternative together with the Related Projects would not result in a cumulative impact that would preclude the City from serving the transportation needs as defined by the City's adopted programs, plans, ordinances, or policies.

# THRESHOLD T-2.1: CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED (VMT) ANALYSIS

*City of Los Angeles VMT Calculator Version 1.3* (LADOT, July 2020) (VMT Calculator) estimates project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits. The VMT Calculator was used to evaluate the VMT of each Alternative and compare it to the VMT impact criteria.

The Project is located within the West Los Angeles Area Planning Commission (APC) area; therefore, the household significant impact criteria is 7.4 household VMT per capita and the work significant impact criteria is 11.1 work VMT per employee. The Project Site is located within a Compact Infill (Zone 3) Travel Behavior Zone; thus, the maximum allowable VMT reduction in the VMT Calculator for the Project is 40%.

#### VMT Calculator Assumptions

The VMT Calculator was set up with each Alternative's land use program and respective densities as the primary input. The VMT Calculator does not include eldercare facility as a land use option; therefore, the Project VMT evaluation presented in the Transportation Assessment utilized a custom land use input developed for the eldercare facility. Similarly, senior housing is not included as a residential land use option in the VMT Calculator; therefore, a custom land use input was developed for Alternative 3 based on the gross daily trip estimates using published rates for "Senior Housing-Attached" from *Trip Generation Manual*, 10<sup>th</sup> Edition.

Consistent with the Project, each Alternative would provide short-term and long-term bicycle parking to help reduce the number of single occupancy vehicle trips to the Project Site and was, therefore, considered in the VMT evaluation.

The VMT analysis results based on the VMT Calculator are summarized in Table 1.

#### Project

**Project VMT.** As shown in Table 1, accounting for removal of the existing uses, the Project would generate a net reduction of 75 daily trips. Therefore, a "no impact" determination can be made for the Project, and no mitigation measures would be required.

Detailed output from the VMT Calculator is provided in Appendix D of the Transportation Assessment.

#### Alternative 2

<u>Alternative 2 VMT</u>. As shown in Table 5, the VMT Calculator estimates that Alternative 2 would generate 647 daily household VMT and 1,163 daily work VMT. Alternative 2 would generate an average household VMT per capita of 4.8 and work VMT per employee of 9.1, which would not exceed the significant impact criteria for the West Los Angeles APC. Similar to the Project, impacts related to Alternative 2 would be less than significant and mitigation measures would not be required. While impacts would be less than significant, it should be noted that Alternative 2 would generate more daily vehicle trips and daily VMT than the Project.

Detailed output from the VMT Calculator is provided in Attachment A.

#### Alternative 3

<u>Alternative 3 VMT.</u> As shown in Table 1, the VMT Calculator estimates that Alternative 3 would generate a net reduction of 134 daily trips. Therefore, similar to the Project, Alternative 3 would not meet the 250 daily trip screening criteria for further VMT analysis as identified in the TAG. Thus, a "no impact" determination could be made for Alternative 3, and no mitigation measures would be required. While impacts would be less than significant, it should be noted that Alternative 3 would generate fewer daily vehicle trips and daily VMT than the Project.

Detailed output from the VMT Calculator is provided in Attachment B.

#### Cumulative VMT Analysis

Consistent with the Project, the Alternatives would not result in a significant and unavoidable household and/or work VMT impact, as detailed above. The Alternatives would also be designed to further reduce single occupancy trips to the Project Site through design features to encourage a variety of transportation options and would be consistent with *The 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments, April 2016) and *Connect SoCal – The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments, Adopted September 2020) (RTP/SCS) goal of maximizing mobility and accessibility in the region.

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

# 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.

Consistent with the Project, none of the Alternatives are transportation projects that would induce automobile travel. Therefore, further evaluation will not be required, and none of the Alternatives would result in a significant impact under Threshold T-2.2.

# THRESHOLD T-3: SUBSTANTIALLY INCREASING HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE ANALYSIS

Threshold T-3 requires that a project undergo further evaluation if it proposes new driveways or new vehicle access points to the property from the public right-of-way (ROW) or modifications along the public ROW (i.e., street dedications) to determine if the geometric design features would substantially increase safety, operational, or capacity hazards.

#### Project

**Driveway Design Features.** The driveways would be designed, placed, and configured in accordance with LADOT's *Manual of Policies and Procedures* (December 2008) to limit vehicle

queues and bicycle/pedestrian-vehicle conflicts. As described above, vehicular access to the Project Site would be provided along Bellwood Avenue from Olympic Boulevard. The portion of Bellwood Avenue that bifurcates the Project Site would be vacated and realigned as a private street; however, public, and vehicular access would be maintained from Olympic Boulevard. A separate service driveway along Bellwood Avenue would be provided adjacent to the driveway to the subterranean parking garage. The driveways would be placed to provide an adequate pedestrian refuge area between the two driveways. Additionally, a vehicular motor court would be provided adjacent to the entry court at the lobby entrance.

The driveways and vehicular motor court would be placed along the vacated portion of Bellwood Avenue and would be designed and located at a distance from Olympic Boulevard to limit queue spillovers into the public ROW and reduce interruptions to pedestrian flow and safety. Thus, the Project's driveway would not substantially increase vehicle-vehicle conflicts and would not present any geometric design hazards as it relates to traffic movement.

<u>Pedestrian and Bicycle Activity</u>. The Project would widen adjacent sidewalks along Bellwood Avenue on both sides of the street to create a walkable and attractive pedestrian environment. In addition, paved walkways would be provided internal to the Project Site with access to and from Bellwood Avenue.

As detailed in the Transportation Assessment, currently there are no bicycle facilities adjacent to the Project frontage. Based on existing intersection volume data collected in April 2019, it was observed that Olympic Boulevard carries fewer than 13 bicycles during the entire span of the six-hour commuter peak periods (7:00 to 10:00 AM and 3:00 to 6:00 PM), as detailed in Appendix B of the Transportation Assessment. Therefore, given the minimal bicycle traffic, the driveways would not pose an increased safety hazard to bicyclists.

**Physical Terrain.** The Project's design integrates with the sloping topography of the surrounding area. The driveway design would not restrict sight lines, allowing drivers to safely identify approaching vehicles, pedestrians, and bicycles before committing to turn. Driveways are designed to intersect Bellwood Avenue at right angles to allow pedestrians and bicyclists to observe vehicles within the driveways.

The Project would provide private and public open space, landscaped elements, and street trees for shade along the Project perimeter and within the Project Site to create a walkable and attractive pedestrian environment. Pedestrian sidewalks would be improved to meet City standards and to provide continuous pedestrian connections on Bellwood Avenue to Olympic Boulevard along the Project frontage.

**Project Location.** The Project Site is not located adjacent to a street identified as part of the High Injury Network. Additionally, the Safe Routes to School map does not identify any infrastructure improvement projects within the Study Area. As previously noted, the portion of Bellwood Avenue that bifurcates the Project Site would be vacated and aligned as a private street. Nevertheless, the Project would improve the vacated portion of Bellwood Avenue to provide 10-foot sidewalks and a 28-foot roadway.

**Incompatible Uses.** The Project design incorporates and expands on the surrounding areas to provide a more attractive, well-defined, and accessible interaction between the Project and these uses. None of the Project design elements tangential to the adjacent uses are considered

incompatible. There are no unusual or new obstacles that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians.

**<u>Summary</u>**. Based on the site plan design, the Project would not present any geometric design hazards related to mobility or pedestrian accessibility.

#### Alternative 2

As with the Project, under Alternative 2, driveways would be designed, placed, and configured in accordance with LADOT's *Manual of Policies and Procedures* to limit vehicle queues and bicycle/pedestrian-vehicle conflicts. The portion of Bellwood Avenue that bifurcates the Project Site would remain it its current alignment. The driveways would be placed along Bellwood Avenue and would be designed and located at a distance from Olympic Boulevard to limit queue spillovers into the public ROW and reduce interruptions to pedestrian/bicycle flow and safety.

**<u>Summary</u>**. Consistent with the Project, based on the site plan design, Alternative 2 does not present any geometric design hazards related to mobility or pedestrian accessibility.

#### Alternative 3

As previously described, under Alternative 3, the portion of Bellwood Avenue that bifurcates the Project Site would remain in its current alignment. The driveways for Alternative 3 would be designed, placed, and configured in accordance with LADOT's *Manual of Policies and Procedures* to limit vehicle queues and bicycle/pedestrian-vehicle conflicts.

The driveways would be placed along Bellwood Avenue and would be designed and located at a distance from Olympic Boulevard to limit queue spillovers into the public ROW and reduce interruptions to pedestrian/bicycle flow and safety.

**<u>Summary</u>**. Consistent with the Project, based on the site plan design, Alternative 3 does not present any geometric design hazards related to mobility or pedestrian accessibility.

#### Cumulative Analysis

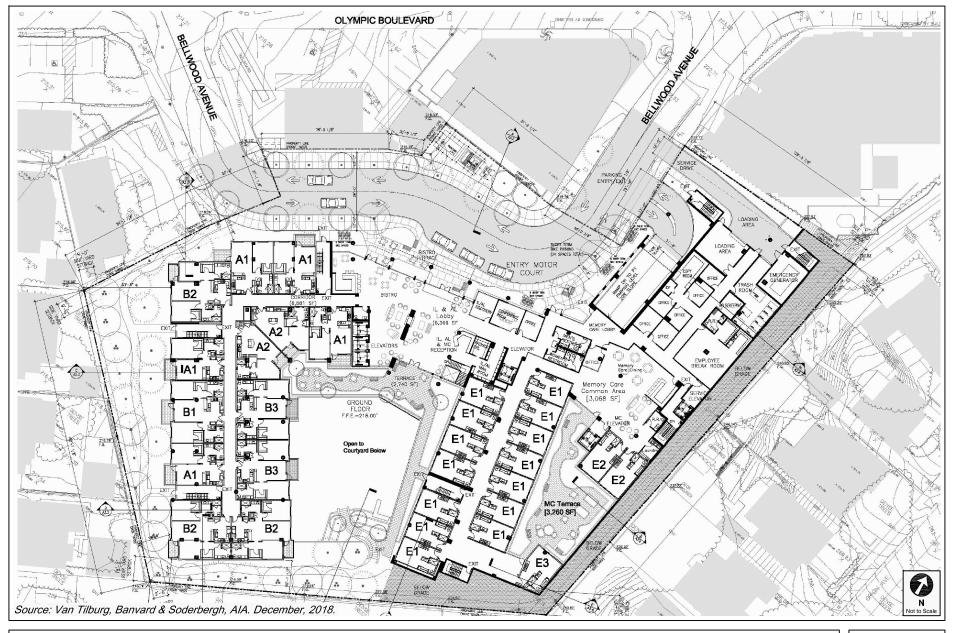
Consistent with the Project, none of the Related Projects identified in the Transportation Assessment provide access along the same block as any of the Alternatives. Thus, the Alternatives and Related Projects would not result in a cumulative impact under Threshold T-3.

#### SUMMARY

• Alternative 2 would generate more peak hour trips during both the morning and afternoon peak hours than the Project, while Alternative 3 would generate fewer peak hour trips during both the morning and afternoon peak hours than the Project.

- Consistent with the Project, each Alternative would be designed to generally conform with the applicable programs, plans, ordinances, or policies related to the circulation system, including transit, roadways, bicycles, and pedestrian facilities. None of the Alternatives would preclude the City from implementing future improvements to serve the long-term mobility needs of the City. Consistent with the Project, none of the Alternatives would result in a significant impact under Threshold T-1.
- Consistent with the Project, none of the Alternatives would result in a significant and unavoidable VMT impact under Threshold T-2.1.
- Each Alternative would contribute to the productivity and use of the regional transportation system by and encourage active transportation, consistent with RTP/SCS goals. As such, consistent with the Project, the Alternatives would not result in a cumulative VMT impact.
- Similar to the Project, none of the Alternatives are transportation projects that would induce automobile travel. Therefore, none of the Alternatives would result in a significant impact under Threshold T-2.2.
- Consistent with the Project, based on the site plan design for each Alternative, none of the Alternatives present any geometric design hazards related to mobility or pedestrian accessibility. Therefore, none of the Alternatives would result in a significant impact under Threshold T-3.

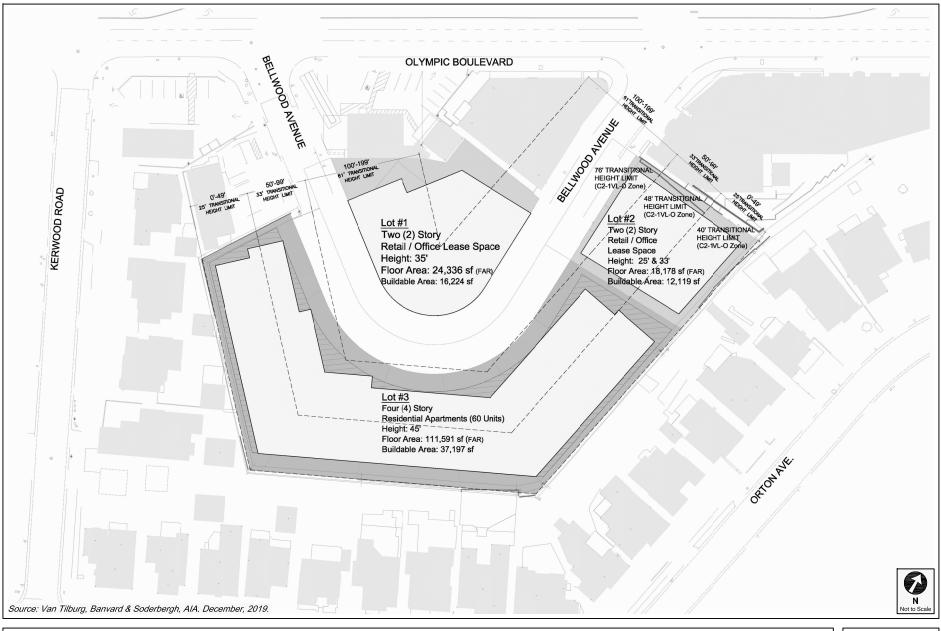




PROJECT SITE PLAN

FIGURE

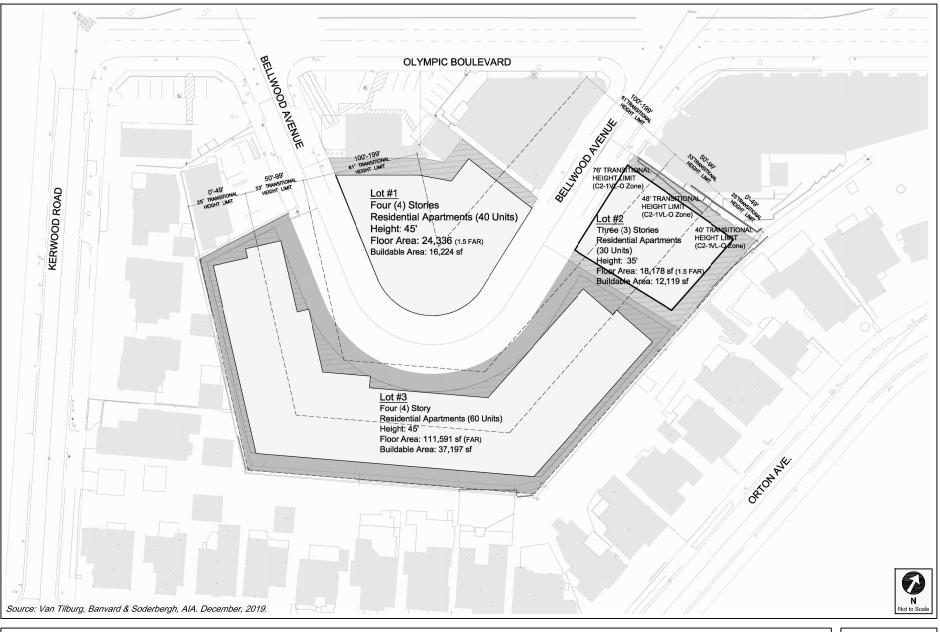




PROJECT SITE PLAN - ALTERNATIVE 2

FIGURE 2





**PROJECT SITE PLAN - ALTERNATIVE 3** 

FIGURE 3

TABLE 1	
ALTERNATIVES SUMMARY	

		Trip	Generation (Ne	t New Project 1	Trips)				VMT A	nalysis			
Project Scenario		AM Peak Hour			PM Peak Hour		Net	Net	Hous	ehold	Work		
	In	Out	Total	In	Out	Total	Daily Trips	Daily VMT	VMT per Capita	Significant Impact	VMT per Employee	Significant Impact	
Project													
<u>Transportation Assessment</u> • 71 Independent Living Units • 75 Assisted Living Beds • 46 Memory Care Beds	10	(26)	(16)	(16)	7	(9)	(75)	39	N/A	NO	N/A	NO	
Alternative 2													
Commercial/Residential Alternative • 60 Residential Units • 21,257 sf retail • 21,257 sf office	21	(10)	11	4	29	33	638	5,631	4.8	NO	9.1	NO	
Alternative 3													
Senior Residential Alternative • 130 Senior Housing Units	(2)	(22)	(24)	(20)	(8)	(28)	(134)	(890)	N/A	NO	N/A	NO	

#### TABLE 2 PROJECT TRIP GENERATION ESTIMATES PROJECT

Land Use	ITE Land	Size	A	M Peak Ho	ur	P	M Peak Ho	our
	Use	Size	In	Out	Total	In	Out	Total
Trin Concretion Detects								
<u>Trip Generation Rates [a]</u> Multifamily Housing (Low-Rise)	220	per du	23%	77%	0.46	63%	37%	0.56
Congregate Care Facility	253	per du	60%	40%	0.40	53%	47%	0.00
Assisted Living	254	per bed	63%	37%	0.19	38%	62%	0.26
Proposed Project								
Independent Living	253	71 du	3	2	5	7	6	13
Assisted Living [b]	254	99 beds	12	7	19	10	16	26
Memory Care [c]	254	46 beds	6	3	9	5	7	12
Subtotal Proposed Project Trips			21	12	33	22	29	51
Existing Uses to be Removed								
Multifamily Housing (Low-Rise)	220	112 du	12	40	52	40	23	63
Less Walk-In/Transit Reduction - 5% [d]			(1)	(2)	(3)	(2)	(1)	(3)
Subtotal - Existing Residential			11	38	49	38	22	60
TOTAL NET NEW PROJEC			10	(26)	(16)	(16)	7	(9)

Notes

1,000 square feet = ksf.

[a] Source: Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

[b] The 75 assisted living guestrooms include 51 one-bedroom units and 24 two-bedroom units.

[c] The 46 memory care guestrooms consist only of studio units.

[d] Per LADOT's *Transportation Assessment Guidelines*, the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit/walk-in reduction is applied to account for transit usage and walking visitor arrivals from the adjacent commercial developments.

#### TABLE 3 PROJECT TRIP GENERATION ESTIMATES ALTERNATIVE 2

Land Use	ITE Land	Size	A	M Peak Ho	ur	Р	M Peak Ho	our
	Use	5120	In	Out	Total	In	Out	Total
Trip Generation Rates [a]								
Multifamily Housing (Low-Rise)	220	per du	23%	77%	0.46	63%	37%	0.56
General Office Building	710	per ksf	86%	14%	1.16	16%	84%	1.15
Shopping Center	820	per ksf	62%	38%	0.94	48%	52%	3.81
Proposed Project								
Multifamily Housing (Low-Rise)	220	60 du	6	22	28	21	13	34
Less Walk-In/Transit Reduction - 5% [b]			0	(1)	(1)	(1)	(1)	(2)
Office	710	21.257 ksf	22	3	25	4	20	24
Less Walk-In/Transit Reduction - 5% [b]			(1)	0	(1)	0	(1)	(1)
Retail (Shopping Center)	820	21.257 ksf	12	8	20	39	42	81
Less Walk-In/Transit Reduction - 5% [b]			(1)	0	(1)	(2)	(2)	(4)
Pass-by Adjustment - 50% [c]			(6)	(4)	(10)	(19)	(20)	(39)
Subtotal Proposed Project Trips			32	28	60	42	51	93
Existing Uses to be Removed								
Multifamily Housing (Low-Rise)	220	112 du	12	40	52	40	23	63
Less Walk-In/Transit Reduction - 5% [b]			(1)	(2)	(3)	(2)	(1)	(3)
Subtotal - Existing Residential			11	38	49	38	22	60
TOTAL NET NEW PROJEC			21	(10)	11	4	29	33

#### Notes

1,000 square feet = ksf.

[a] Source: Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

[b] Per LADOT's *Transportation Assessment Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit/walk-in reduction is applied to account for transit usage and walking visitor arrivals from the adjacent commercial developments.

[c] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

#### TABLE 4 PROJECT TRIP GENERATION ESTIMATES ALTERNATIVE 3

Land Use	ITE Land	Size	A	M Peak Ho	ur	Р	M Peak Ho	ur
	Use	5120	In	Out	Total	In	Out	Total
<u>Trip Generation Rates</u> [a] Multifamily Housing (Low-Rise) Senior Adult Housing - Attached	220 252	per du per du	23% 35%	77% 65%	0.46 0.20	63% 55%	37% 45%	0.56 0.26
Proposed Project Senior Adult Housing - Attached <i>Less Walk-In/Transit Reduction - 5%</i> [b]	252	130 du	9 0	17 (1)	26 (1)	19 <i>(1)</i>	15 <i>(1)</i>	34 (2)
Subtotal Proposed Project Trips			9	16	25	18	14	32
Existing Uses to be Removed Multifamily Housing (Low-Rise) Less Walk-In/Transit Reduction - 5% [b] Subtotal - Existing Residential	220	112 du	12 (1) <b>11</b>	40 (2) <b>38</b>	52 (3) <b>49</b>	40 (2) <b>38</b>	23 (1) <b>22</b>	63 <i>(3)</i> <b>60</b>
TOTAL NET NEW PROJEC	T TRIPS		(2)	(22)	(24)	(20)	(8)	(28)

Notes

1,000 square feet = ksf.

[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.

[b] Per LADOT's *Transportation Assessment Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit/walk-in reduction is applied to account for transit usage and walking visitor arrivals from the adjacent commercial developments.

#### TABLE 5 VMT ANALYSIS SUMMARY ALTERNATIVE 2

	Project Information
Address	10366 W Bellwood Avenue
Project Land Uses	Size
Multi-Family Housing	60 units
Retail	21,257 sf
General Office	21,257 sf
	Project Analysis [a]
Resident Population	135
Employee Population	128
Area Planning Commission	West Los Angeles
Travel Behavior Zone [b]	Compact Infill
Maximum VMT Reduction [c]	40%
	VMT Analysis, prior to Mitigation [f]
Daily Vehicle Trips	1,108
Daily VMT	8,729
Total Household VMT	647
Household VMT per Capita [d]	4.8
Impact Threshold	7.4
Significant Impact	NO
Total Work VMT	1,163
Work VMT per Employee [e]	9.1
Impact Threshold	11.1
Significant Impact	NO

Notes:

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

*Documentation* (LADOT and DCP, May 2020) as higher density neighborhoods that include multi-story buildings and well connected streets.

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

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

[e] Work VMT per Employee is based on the "home-based work attraction" trip types.

[f] The Project design features include:

1. Bicycle parking per LAMC requirements

<sup>[</sup>b] A "Compact Infill" TBZ is characterized in City of Los Angeles VMT Calculator

Attachment A

Alternative 2 VMT Calculator 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		Existing Lan	d Use			
	Land	d Use Type	Va	alue	Unit	
Senior Residential Living at the Bellwood	Housing   Multi-Family	•	112		DU	
Alternative 2 - Residential/Commercial	WWW Housing   Multi-Family		112	DU		
10366 W BELLWOOD AVE, 90064	<b>Q</b>					
VENTURA VEN	Click here to add a s	single custom land use type	(will be inclu	uded in t	he above	list
MANCHESTER S	Pro	posed Project	Land	Use		
	IMPERIAL	-			Unit	
	Housing   Multi-Family	-	61		DU	
	Retail   General Retail		21.257	ksf ksf		
oiect replacing an existing number of			60	DU		
al unite with a smaller number of						
	Senior Residential Living at the Bellwood Alternative 2 - Residential/Commercial 10366 W BELLWOOD AVE, 90064	Senior Residential Living at the Bellwood Alternative 2 - Residential/Commercial 10366 W BELLWOOD AVE, 90064	Senior Residential Living at the Bellwood Alternative 2 - Residential/Commercial 10366 W BELLWOOD AVE, 90064	Senior Residential Living at the Bellwood       Land Use Type       Valuation         Alternative 2 - Residential/Commercial       Mutri-Family       112         10366 W BELLWOOD AVE, 90064       Image: Commercial Bellwood       Image: Commercial Bellwood	Senior Residential Living at the Bellwood       Land Use Type       Value         Alternative 2 - Residential/Commercial       Image: Commercial in the Bellwood AVE, 90064       Image: Commercial in the Bellwood A	Senior Residential Living at the Bellwood       Land Use Type       Value       Unit         Alternative 2 - Residential/Commercial       UVV       Housing   Multi-Family       112       DU         10366 W BELLWOOD AVE, 90064       UVV       Housing   Multi-Family       112       DU         Image: Senior Residential/Commercial       UVV       Image: Senior Residential/Commercial       Image: Senior Residential/Commercial/Commercial       Image: Senior Residential/Commercial/Senior Residential/Commercial/Senio/Senior Residential/Senior Residential/Senio

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?

• No

• Yes



#### **Project Screening Summary**

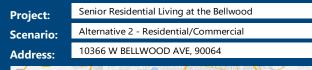
Existing Land Use	Propos Projec	
<b>477</b> Daily Vehicle Trips	<b>1,11</b> Daily Vehicle	
<b>3,153</b> Daily VMT	<b>8,78</b> Daily VN	
Tier 1 Screen	ing Criteria	
Project will have less reside to existing residential units mile of a fixed-rail station. Tier 2 Screen	& is within one-h	
The net increase in daily tri		638 Net Daily Trips
The net increase in daily VN	/T ≤ 0	<b>5,631</b> Net Daily VMT
The proposed project consi land uses ≤ 50,000 square f		<b>21.257</b> ksf
The proposed project i VMT ar		perform



## **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**



### **Project Information**





Proposed Project Land Use Type	Value	Unit
Retail   General Retail	21.257	ksf
Office   General Office	21.257	ksf
Housing   Multi-Family	60	DU

### **TDM Strategies**

Select each section to show individual strategies



### **Analysis Results**

Proposed Project	With Mitigation
1,108	1,108
Daily Vehicle Trips	Daily Vehicle Trips
8,729	8,729
Daily VMT	Daily VMT
4.8	4.8
Houseshold VMT per Capita	Houseshold VMT per Capita
9.1	9.1
9.1 Work VMT	9.1 Work VMT
per Employee	per Employee
Significant \	/MT Impact?
Household: No	Household: No
Threshold = 7.4	Threshold = 7.4
15% Below APC	15% Below APC
Work: No	Work: No
Threshold = 11.1	Threshold = 11.1
15% Below APC	15% Below APC

Measuring the Miles

### **Report 1: Project & Analysis Overview**

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064

Date: January 5, 2021



Project Information					
Land	l Use Type	Value	Units		
	Single Family	0	DU		
	Multi Family	60	DU		
Housing	Townhouse	0	DU		
	Hotel	0	Rooms		
	Motel	0	Rooms		
	Family	0	DU		
Affordable Housing	Senior	0	DU		
jjorduble nousing	Special Needs	0	DU		
	Permanent Supportive	0	DU		
	General Retail	21.257	ksf		
	Furniture Store	0.000	ksf		
	Pharmacy/Drugstore	0.000	ksf		
	Supermarket	0.000	ksf		
	Bank	0.000	ksf		
	Health Club	0.000	ksf		
Retail	High-Turnover Sit-Down	0.000			
Retail	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	21.257	ksf		
Office	Medical Office	0.000	ksf		
	Light Industrial	0.000	ksf		
Industrial	Manufacturing	0.000	ksf		
	Warehousing/Self-Storage	0.000	ksf		
	University	0	Student		
	High School	0	Student		
School	Middle School	0	Students		
	Elementary	0	Students		
	Private School (K-12)	0	Students		

Project and Analysis Overview

CITY OF LOS ANGELES VMT CALCULA Report 1: Project & Analysis Overview	Project Scenario: Alternative 2 - Residential/Commercial	Version 1.3
Other	0 Trips	

**Report 1: Project & Analysis Overview** 

Date: January 5, 2021

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



	Analysis Res	sults								
	Total Employees:	128								
Total Population: 135										
Propose	ed Project	With Mi	itigation							
1,108	Daily Vehicle Trips	1,108	Daily Vehicle Trips							
8,729	Daily VMT	8,729	Daily VMT							
	Household VMT		Household VMT per							
4.8	per Capita	4.8	Capita							
	Work VMT		Work VMT per							
9.1	per Employee	9.1	Employee							
	Significant VMT									
	APC: West Los A									
	Impact Threshold: 15% Belo									
	Household = 7									
	Work = 11.1									
	ed Project		itigation							
VMT Threshold	Impact	VMT Threshold	Impact							
Household > 7.4 Work > 11.1	No	Household > 7.4 Work > 11.1	No							

#### **Report 2: TDM Inputs**

Date: January 5, 2021 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



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

(cont. on following page)

#### **Report 2: TDM Inputs**

Date: January 5, 2021 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



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

#### **Report 2: TDM Inputs**

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064

Date: January 5, 2021



Strate	еду Туре	Description	Proposed Project	Mitigations
	Required commute trip reduction program	Employees participating (%)	0%	0%
	Alternative Work Schedules and	Employees participating (%)	0%	0%
Commute Trip Reductions	Telecommute	Type of program	0	0
		Degree of implementation (low, medium, high)	0	0
	Employer sponsored vanpool or shuttle	Employees eligible (%)	0%	0%
		Employer size (small, medium, large)	0	0
	Ride-share program	Employees eligible (%)	0%	0%
	Car share	Car share project setting (Urban, Suburban, All Other)	0	0
Shared Mobility	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

#### **Report 2: TDM Inputs**

Date: January 5, 2021 Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



	TDM	Strategy Inputs,	, Cont.	
Strate	еду Туре	Description	<b>Proposed Project</b>	Mitigations
	Implement/Improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0
Bicycle Infrastructure	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
	Traffic calming	Streets with traffic calming improvements (%)	0%	0%
Neighborhood Enhancement	improvements	Intersections with traffic calming improvements (%)	0%	0%
Ennancement	Pedestrian network improvements	Included (within project and connecting off- site/within project only)	0	0

Date: January 5, 2021

Report 3: TDM Outputs

Project Name: Senior Residential Living at the Bellwood Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



					•		• •	se & Stra						
		Home Bo	ased Work	Home Bo	ased Work	Place type	sed Other		ased Other	Non-Home	Based Other	Non-Home	Based Other	
			luction		action		luction		action		luction	Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Proposed Mitigated	
	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Parking	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
i urking	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
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Transit sections 1 - 3
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education &	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
Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Charles
Commute Trip Reductions	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Tri Reductions
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1 - 4
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	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
Shared Mobility	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%	i Divi Strategy
nared wobility	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%	Mobility section 1 - 3

Date: January 5, 2021

**Report 3: TDM Outputs** 

Project Name: Senior Residential Living at the Bellwood Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



TDM Adjustments by Trip Purpose & Strategy, Cont.														
Place type: Compact Infill														
		Home B	ased Work	Home Bo	ased Work	Ноте Во	ased Other	Ноте Во	ased Other	Non-Home	Based Other	Non-Home	Based Other	
		Prod	luction	Attr	action	Prod	luction	Attr	action	Proc	luction	Attr	action	Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle	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
Infrastructure	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%	sections 1 - 3
Neighborhood	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,
Enhancement	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%	Neighborhood Enhancement

	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	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
MAX. TDM EFFECT	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	

= Min	<b>= Minimum (X%, 1-[(1-A)*(1-B)])</b> where X%=									
PLACE	urban	75%								
ТҮРЕ	compact infill	40%								
MAX:	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.

Date: January 5, 2021 Project Name: Senior Residential Living at the Bellwooc Project Scenario: Alternative 2 - Residential/Commercial Project Address: 10366 W BELLWOOD AVE, 90064



### Report 4: MXD Methodology

MXD Methodology - Project Without TDM											
Unadjusted Trips MXD Adjustment MXD Trips Average Trip Length Unadjusted VMT MXD V											
Home Based Work Production	54	-24.1%	41	5.6	302	230					
Home Based Other Production	149	-42.3%	86	4.9	730	421					
Non-Home Based Other Production	294	-7.5%	272	8.1	2,381	2,203					
Home-Based Work Attraction	185	-26.5%	136	8.6	1,591	1,170					
Home-Based Other Attraction	579	-38.5%	356	8.4	4,864	2,990					
Non-Home Based Other Attraction	242	-7.4%	224	7.9	1,912	1,770					

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	-0.6%	41	229	-0.6%	41	229					
Home Based Other Production	-0.6%	85	418	-0.6%	85	418					
Non-Home Based Other Production	-0.6%	270	2,189	-0.6%	270	2,189					
Home-Based Work Attraction	-0.6%	135	1,163	-0.6%	135	1,163					
Home-Based Other Attraction	-0.6%	354	2,971	-0.6%	354	2,971					
Non-Home Based Other Attraction	-0.6%	223	1,759	-0.6%	223	1,759					

	MXD VMT Methodology Per Capita & Per E	mplovee		
Total Population: 135				
	Total Employees: APC:	128 West Los Angeles		
	Proposed Project	Project with Mitigation Measures		
Total Home Based Production VMT	647	647		
Total Home Based Work Attraction VMT	1,163	1,163		
Total Home Based VMT Per Capita	4.8	4.8		
Total Work Based VMT Per Employee	9.1	9.1		

Attachment B

Alternative 3 VMT Calculator Analysis Worksheet

### **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**



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?



Existing Land Use				
Land Use Type Housing   Multi-Family	Value	Unit DU	÷.	
Housing   Multi-Family	112	DU		
Click here to add a single custom land use type (w	ill be included in t	the above lis	st)	
Click here to add a single custom land use type (w <b>Proposed Project l</b>			st)	
			st)	
Proposed Project I	and Use		st)	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta	Land Use Value	Unit DU ii LU type	•	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents	Land Use Value Value I (a) Non-Reta 158	Unit DU ii LU type Person	•	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees	Land Use Value Value	Unit DU i LU type Person Person	•	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees (custom) Senior Housing   Daily	Land Use Value Value I a Non-Reta 158 0 481	Unit DU ii LU type Person	•	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees	Land Use Value Value Il (a) Non-Reta 158 0 481 Spli 0	Unit DU ii LU type Person Person Trips	<b>.</b>	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Daily (custom) Senior Housing   Daily (custom) Senior Housing   HBV-Attraction (custom) Senior Housing   HBO-Attraction (custom) Senior Housing   NHB-Attraction   Senior Housing   Senior Hou	Land Use Value Value II (a) Non-Reta 158 0 481 Spli 0 Spli 20 Spli 5	Unit DU ii LU type Person Person Trips Percent	•	
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Daily (custom) Senior Housing   DBV-Attraction (custom) Senior Housing   HBV-Attraction (custom) Senior Housing   HBV-Attraction S (custom) Senior Housing   HBV-Attraction S (custom) Senior Housing   HBV-Production	Land Use Value Value Il (a) Non-Reta 158 0 481 Spli 0 Splii 20 Splii 5 15	Unit DU i LU type Person Person Trips Percent Percent Percent		
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees (custom) Senior Housing   Daily (custom) Senior Housing   HBW-Attraction (custom) Senior Housing   HBO-Attraction ( (custom) Senior Housing   HBO-Attraction ( (custom) Senior Housing   HBW-Production (custom) Senior Housing   HBO-Production (custom) Senior Housing   HBO-Production	Land Use Value Value Il a Non-Reta 158 0 481 Spli 0 Spli 20 Spli 20 Spli 5 n Sp 15 Sp 15 Sp 41	Unit DU DU DU Derson Person Trips Percent Percent Percent Percent		
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Daily (custom) Senior Housing   DBV-Attraction (custom) Senior Housing   HBV-Attraction S (custom) Senior Housing   HBV-Attraction S (custom) Senior Housing   HBV-Attraction S (custom) Senior Housing   HBV-Production	Land Use Value Value Il a Non-Reta 158 0 481 Spli 0 Spli 20 Spli 20 Spli 5 n Sp 15 Sp 15 Sp 41	Unit DU i LU type Person Person Trips Percent Percent Percent		
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees (custom) Senior Housing   Daily (custom) Senior Housing   HBW-Attraction (custom) Senior Housing   HBO-Attraction ( (custom) Senior Housing   HBO-Attraction ( (custom) Senior Housing   HBW-Production (custom) Senior Housing   HBO-Production (custom) Senior Housing   HBO-Production	Land Use Value Value Il a Non-Reta 158 0 481 Spli 0 Spli 20 Spli 20 Spli 5 n Sp 15 Sp 15 Sp 41	Unit DU DU DU Derson Person Trips Percent Percent Percent Percent		
Proposed Project I Land Use Type Housing   Multi-Family (custom) Senior Housing   Retail/Non-Reta (custom) Senior Housing   Residents (custom) Senior Housing   Employees (custom) Senior Housing   HBW-Attraction (custom) Senior Housing   HBW-Attraction ( (custom) Senior Housing   HBW-Attraction ( (custom) Senior Housing   HBW-Production (custom) Senior Housing   HBW-Production (custom) Senior Housing   HBO-Production	Land Use Value Value Il a Non-Reta 158 0 481 Spli 0 Spli 20 Spli 20 Spli 5 n Sp 15 Sp 15 Sp 41	Unit DU DU DU Derson Person Trips Percent Percent Percent Percent		

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

#### **Project Screening Summary**

Existing Land Use	Propos	ed	
477			
Daily Vehicle Trips	Daily Vehicl		
<b>3,153</b> Daily VMT	<b>2,26</b> Daily VI		
Tier 1 Screer	ning Criteria		
Project will have less residential units compared to existing residential units & is within one-half in mile of a fixed-rail station.			
Tier 2 Screen	ning Criteria		
The net increase in daily trip	os < 250 trips	-134 Net Daily Trips	
The net increase in daily VN	<b>/</b> T ≤ 0	- <b>890</b> Net Daily VMT	
The proposed project consi land uses ≤ 50,000 square fo		0.000 ksf	
The proposed projec perform VN		red to	



[a] Daily trip estimate based on ITE trip rates for "Senior Adult Housing - Attached" land use in Trip Generation Manual, 10th Edition (2017).

## **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**

### **Project Information**

Project: Scenario: Address: Senior Residential Living at the Bellwood Alternative 3 - Senior Housing 10366 W BELLWOOD AVE, 90064



Proposed Project Land Use Type	Value	Unit
(custom) Senior Housing   Retail/Non-Retail	Non-Retai	LU type
(custom) Senior Housing   Residents	158	Person
(custom) Senior Housing   Employees	0	Person
(custom) Senior Housing   Daily	481	Trips
(custom) Senior Housing   HBW-Attraction Spli	0	Percent
(custom) Senior Housing   HBO-Attraction Split	20	Percent
(custom) Senior Housing   NHB-Attraction Split	5	Percent
(custom) Senior Housing   HBW-Production Sp	15	Percent
(custom) Senior Housing   HBO-Production Sp	41	Percent
(custom) Senior Housing   NHB-Production Spl	19	Percent

se 🔽 to denote if the TDM strate	gy is part of the	proposed project or is a	mitigation strategy
Max Home Based TDM A Max Work Based TDM A		Proposed Project No No	With Mitigation No No
A	Park	king	
B	Trai	nsit	
C Educ	cation & Er	ncouragement	
D Cor	mmute Tri	p Reductions	
•	Shared I	Mobility	
E	Bicycle Infr	astructure	
Implement/Improve On-street Bicycle Facility Proposed Prj Mitigation	Select Proposed	l Prj or Mitigation to inclu	ıde this strategy
Include Bike Parking Per LAMC	Select Proposed	d Prj or Mitigation to inclu	ıde this strategy
Include Secure Bike Parking and Showers Proposed Prj Mitigation	Select Proposed	d Prj or Mitigation to inclu	ıde this strategy
G Neia	hborhood	Enhancement	

**TDM Strategies** 

Select each section to show individual strategies

### **Analysis Results**

P

Proposed Project	With Mitigation
342	342
Daily Vehicle Trips	Daily Vehicle Trips
2,249	2,249
Daily VMT	Daily VMT
N/A	N/A
Houseshold VMT per Capita	Houseshold VMT per Capita
N/A	N/A
Work VMT	Work VMT
Significant V	/MT Impact?
Household: N/A	Household: N/A
Threshold = 7.4	Threshold = $7.4$
15% Below APC	15% Below APC
Work: N/A	Work: N/A
Threshold = 11.1	Threshold = 11.1
15% Below APC	15% Below APC

5/10/2021

### Report 1: Project & Analysis Overview

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064

Date: May 10, 2021



Project Information					
Land Use Type Value Units					
	Single Family	0	DU		
	Multi Family	0	DU		
Housing	Townhouse	0	DU		
	Hotel	0	Rooms		
	Motel	0	Rooms		
	Family	0	DU		
Affordable Housing	Senior	0	DU		
Affordable Housing	Special Needs	0	DU		
	Permanent Supportive	0	DU		
	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		
Detail	High-Turnover Sit-Down	0.000	1.0		
Retail	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		
Office	Medical Office	0.000	ksf		
	Light Industrial	0.000	ksf		
Industrial	Manufacturing	0.000	ksf		
	Warehousing/Self-Storage	0.000	ksf		
	University	0	Students		
	High School	0	Students		
School	Middle School	0	Students		
	Elementary	0	Students		
	Private School (K-12)	0	Students		
Other	Senior Housing	481	Trips		

#### Project and Analysis Overview

Report 1: Project & Analysis Overview

Project Name: Senior Residential Living at the Bellwooc Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064

Date: May 10, 2021



	Analysis Res	sults	
	Total Employees:	0	
	Total Population:	158	
Propos	ed Project	With M	itigation
342	Daily Vehicle Trips	342	Daily Vehicle Trips
2,249	Daily VMT	2,249	Daily VMT
N/A	Household VMT per Capita	N/A	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
	Significant VMT	Impact?	
	APC: West Los A	Angeles	
	Impact Threshold: 15% Belo	ow APC Average	
	Household = 7	7.4	
	Work = 11.1	L	
Propos	ed Project	With M	itigation
VMT Threshold	Impact	VMT Threshold	Impact
Household > 7.4	N/A	Household > 7.4	N/A
Work > 11.1	N/A	Work > 11.1	N/A

#### Date: May 10, 2021

**Report 2: TDM Inputs** 

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064



Stra	tegy Type	Description	Proposed Project	Mitigation
	Reduce parking	City code parking provision (spaces)	0	0
	supply	Actual parking provision (spaces)	0	0
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
Parking	Parking cash-out	Employees eligible (%)	0%	0%
-	Price workplace	Daily parking charge (\$)	\$0.00	\$0.00
	parking	Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
		(cont. on following page	2)	

#### **Report 2: TDM Inputs**

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064

Date: May 10, 2021



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

#### Date: May 10, 2021

**Report 2: TDM Inputs** 

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064



Strate	ву Туре	Description	Proposed Project	Mitigations
	Required commute trip reduction program	Employees participating (%)	0%	0%
	Alternative Work Schedules and	Employees participating (%)	0%	0%
	Telecommute	Type of program	0	0
Commute Trip Reductions		Degree of implementation (low, medium, high)	0	0
Reddetions	Employer sponsored vanpool or shuttle	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

**Report 2: TDM Inputs** 

#### Date: May 10, 2021

Р

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064



TDM Strategy Inputs, Cont.						
Strate	Strategy Type Description Proposed Project Mitigations					
	Implement/Improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0		
Bicycle	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	Streets with traffic calming improvements (%)	0%	0%		
	improvements	Intersections with traffic calming improvements (%)	0%	0%		
	Pedestrian network improvements	Included (within project and connecting off- site/within project only)	0	0		

Report 3: TDM Outputs

Date: May 10, 2021 Project Name: Senior Residential Living at the Bellwood Project Scenario: Alternative 3 - Senior Housing

Version 1.3

Project Address: 10366 W BELLWOOD AVE, 90064

				TDM	Adjustm	ents by T	r <b>ip Purpo</b>	se & Stra	tegy					
						Place type:	Compact							
			sed Work		ised Work		sed Other		sed Other		Based Other		Based Other	
		Produce Produc	uction Mitigated	Attro Proposed	nction Mitigated	Prod Proposed	uction Mitigated	Attro Proposed	nction Mitigated		Production		action Mitigated	Source
	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	Proposed 0%	Mitigated 0%	Proposed 0%	0%	
	Unbundle parking	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
Parking	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Parking sections
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1 - 5
	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%	
	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Transit	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Transit sections 1 - 3
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education &	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix,
Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Encouragement sections 1 - 2
	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
Commute Trip Reductions	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%	
	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
Shared Mobility	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%	Appendix, Shared
	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%	Mobility sections 1 - 3

Date: May 10, 2021

**Report 3: TDM Outputs** 

Project Name: Senior Residential Living at the Bellwood Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064



TDM Adjustments by Trip Purpose & Strategy, Cont.														
	Place type: Compact Infill													
		Ноте Вс	ased Work	Home Bo	ased Work	Ноте Во	ased Other	Home Bo	ased Other	Non-Home	Based Other	Non-Home Based Other		
		Prod	uction	Attraction Production Attraction Production		Attraction		Source						
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
	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
Bicycle Infrastructure	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	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,
Enhancement	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%	Neighborhood Enhancement sections 1 - 2

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	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
MAX. TDM EFFECT	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

= Mini	<b>= Minimum (X%, 1-[(1-A)*(1-B)])</b> where X%=						
PLACE	urban	75%					
ТҮРЕ	compact infill	40%					
MAX:	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.

Date: May 10, 2021

### Report 4: MXD Methodology

Project Name: Senior Residential Living at the Bellwoo Project Scenario: Alternative 3 - Senior Housing Project Address: 10366 W BELLWOOD AVE, 90064



MXD Methodology - Project Without TDM								
	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT		
Home Based Work Production	72	-18.1%	59	5.6	403	330		
Home Based Other Production	197	-39.6%	119	4.9	965	583		
Non-Home Based Other Production	91	-6.6%	85	8.1	737	689		
Home-Based Work Attraction	0	0.0%	0	8.6	0	0		
Home-Based Other Attraction	96	-40.6%	57	8.4	806	479		
Non-Home Based Other Attraction	24	-4.2%	23	7.9	190	182		

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	-0.6%	59	328	-0.6%	59	328			
Home Based Other Production	-0.6%	118	579	-0.6%	118	579			
Non-Home Based Other Production	-0.6%	85	685	-0.6%	85	685			
Home-Based Work Attraction	-0.6%			-0.6%					
Home-Based Other Attraction	-0.6%	57	476	-0.6%	57	476			
Non-Home Based Other Attraction	-0.6%	23	181	-0.6%	23	181			

MXD VMT Methodology Per Capita & Per Employee								
Total Population: 158								
Total Employees: 0								
APC: West Los Angeles								
	Proposed Project	Project with Mitigation Measures						
Total Home Based Production VMT	907	907						
Total Home Based Work Attraction VMT	0	0						
Total Home Based VMT Per Capita	N/A	N/A						
Total Work Based VMT Per Employee	N/A	N/A						