Appendix J

Transportation Study

TRANSPORTATION ASSESSMENT
FOR THE
1000 SEWARD
MIXED-USE DEVELOPMENT PROJECT
HOLLYWOOD, CALIFORNIA

JULY 2021

PREPARED FOR

39 SOUTH, LLC

PREPARED BY

Gibson
transportation consulting, inc.

DRAFT

TRANSPORTATION ASSESSMENT
FOR THE
1000 SEWARD
MIXED-USE DEVELOPMENT PROJECT

HOLLYWOOD, CALIFORNIA

July 2021

Prepared for:

39 SOUTH, LLC

Prepared by:

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

Ref: J1780

Table of Contents

Table of Contents, cont.

List of Figures

NO.

List of Tables

NO.

Chapter 1

Introduction

This study presents the transportation assessment for the mixed-use development project (Project) proposed at 6565 Romaine Street and 1003, 1007, and 1013 Hudson Avenue (Project Site) in the *Hollywood Community Plan* (Los Angeles Department of City Planning [LADCP], 1988) (the Hollywood Community Plan) 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 is proposing the construction of a 10-story mixed-use development (with an additional rooftop level for mechanical equipment), with new office, restaurant, and retail uses totaling 150,600 square feet (sf). The Project would develop 136,200 sf of office uses, 12,200 sf of restaurant uses (of which 6,100 sf may be used for an entertainment use), and 2,200 sf of retail uses. Parking for the Project would be provided within four subterranean levels and four fully enclosed and mechanically ventilated above grade levels, with vehicular access provided via one driveway along Hudson Avenue. Pedestrian and bicycle access to the Project would be provided via the commercial plaza entrance along Romaine Street. Short-term and long-term bicycle parking spaces would be located on the ground floor adjacent to the plaza. The existing 8,442 sf of office and 2,551 sf restaurant uses on the Project Site would be demolished to accommodate the Project.

The Project is anticipated to be completed in Year 2025. The conceptual Project Site plan is illustrated in Figure 1.

PROJECT LOCATION

The Project Site is located in the Hollywood community within City Council District 13 and is approximately 0.78-acres comprised of two contiguous lots which are assigned APN 5533012025 and 5533012013 in the Los Angeles County Assessor's records. The Project Site is bounded by residential and surface parking uses to the north, Hudson Avenue to the east, Romaine Street to the south, and Seward Street to the west.

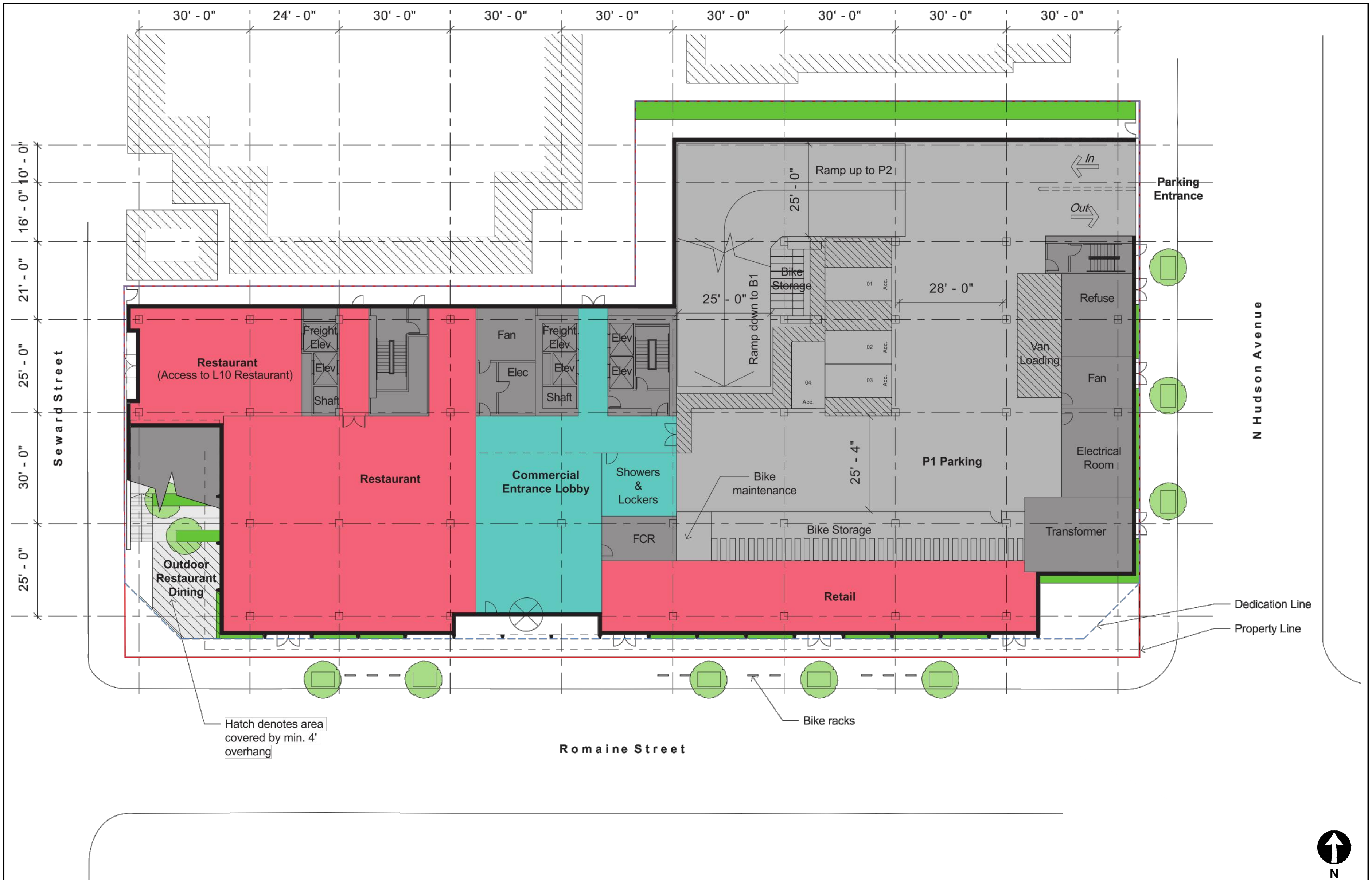
The Project Site is located approximately 1.50 miles west of the Hollywood Freeway (US 101), which provides regional transportation between downtown Los Angeles (approximately 4.00 miles southeast) and the San Fernando Valley (approximately 6.0 miles northwest). Transit service is provided in and around the Study Area by Los Angeles County Metropolitan Transportation Authority (Metro) Local and Metro Rapid bus lines.

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) (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 April 2020 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 study area and existing and future cumulative transportation conditions. Chapter 3 presents the Project Traffic including the Project trip generation, trip distribution, and trip assignment. Chapter 4 details the CEQA Analysis of Transportation Impacts including TAG Thresholds T-1 through T-3 and the California Department of Transportation (Caltrans) analysis. Chapter 5 discusses the Non-CEQA Transportation Analyses including the pedestrian, bicycle, and transit assessments, Project access, safety, and circulation assessments, residential street cut-through analysis, construction impact analysis, and parking analysis. Finally, Chapter 6 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.



Source: Hawkins | Brown Architects. February, 2020.

PROJECT SITE PLAN

FIGURE 1

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 within the Study Area including freeway and street systems, intersection operations, transit service, as well as pedestrian and bicycle circulation, at the time the MOU was approved in April 2020. 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 2025, which corresponds to the estimated occupancy of the Project.

STUDY AREA

The Project's transportation analysis Study Area, shown in Figure 2, was established in consultation with LADOT and includes a geographic area that is generally bounded by Santa Monica Boulevard to the north, Wilcox Avenue to the east, Romaine Street to the south, and Seward Street to the west, and is generally comprised of key intersections selected using the following factors identified in the TAG:

1. Primary driveway(s)
2. 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

A total of five intersections, one signalized and four unsignalized, listed in Table 1, were identified during the MOU process for detailed analysis of the above conditions. Several other intersections were considered, however, were not selected for further evaluation as they did not meet the criteria outlined above and have relatively lower traffic volumes on the minor street approach, with no documented existing or projected future adverse operational issues. Figure 3 illustrates the location of the Project Site in relation to the surrounding street system and the five study intersections. The existing lane configurations at the analyzed intersections are provided in Figure 4.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including 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 and 65 mph on freeways.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (LADCP, September 2016) (Mobility Plan). The Mobility Plan defines specific street standards in an effort to provide an enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the Mobility Plan, street classifications are defined as follows:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:

    - Boulevards represent the widest Arterial Streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a right-of-way (ROW) width of 136 feet and pavement width of 100 feet.
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph, with ROW widths varying from 104-110 feet, and pavement widths from 70-80 feet.
    - Avenues are typically narrower Arterial Streets that pass through both residential and commercial areas and include three categories:
        - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph, with a ROW width of 100 feet and pavement width of 70 feet.
        - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph, with a ROW width of 86 feet and pavement width of 56 feet.
        - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph, with a ROW width of 72 feet and pavement width of 46 feet.
- Collector Streets are generally located in residential neighborhoods and provide access to and from Arterial Streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph, with a ROW width generally at 65 feet and pavement width of 44 feet.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Pavement widths may vary between 30-36 feet within a ROW width of 50-60 feet. Local Streets include two categories:
    - Continuous Local Streets connect to other streets at both ends
    - Non-continuous Local Streets lead to a dead-end

Primary regional access to the Project Site is provided by US 101, which generally runs in the northwest-southeast direction and is located approximately 1.50 miles east of the Project Site. Access to US 101 is provided via interchanges at Santa Monica Boulevard and Western Avenue. In proximity to the Project Site, the Study Area is served by Arterial Streets such as Santa Monica Boulevard and Wilcox Avenue. The following is a brief description of the roadways in the Study Area, including their classifications in the Mobility Plan:

Roadways

- Santa Monica Boulevard – Santa Monica Boulevard is a designated Modified Avenue I, and is also identified as State Route 2 within the Study Area. It travels in the east-west direction and is located north of the Project Site. It generally provides four travel lanes, two lanes in each direction, with left-turn lanes at major intersections. Metered parking with one-hour daytime restrictions is generally provided on both sides of the street within the Study Area. Travel lanes are typically 11 to 12 feet wide within the Study Area.

- Wilcox Avenue – Wilcox Avenue is a designated Modified Avenue III. It travels in the north-south direction and is located east of the Project Site. It generally provides two travel lanes, one lane in each direction. Metered and unmetered parking with one-hour daytime restrictions is generally provided on both sides of the street within the Study Area. Wilcox Avenue between Santa Monica Boulevard and Melrose Avenue is within Preferential Parking District (PPD) 40. The approximate paved width of Wilcox Avenue is 40 feet within the Study Area.

- Hudson Avenue – Hudson Avenue is a designated Local Street. It travels in the north-south direction and is located adjacent to the eastern boundary of the Project Site. It generally provides two travel lanes, one lane in each direction. Unmetered parking with two-hour nighttime restrictions and permit exemptions is generally provided on the east side of the street, and unmetered parking with one-hour nighttime restrictions is generally provided on the west side of the street within the Study Area. Hudson Avenue between Santa Monica Boulevard and Melrose Avenue is within PPD 40. The approximate paved width of Hudson Avenue is 40 feet within the Study Area.

- Romaine Street – Romaine Street is a designated Local Street. It travels in the east-west direction and is located adjacent to the southern boundary of the Project Site. It generally provides two travel lanes, one lane in each direction. Unmetered parking with two-hour nighttime restrictions is generally provided on both sides of the street within the Study Area. Romaine Street between the Project Site and Cole Avenue is within PPD 40. The approximate paved width of Romaine Street is 30 feet within the Study Area.

- Seward Street – Seward Street is a designated Local Street. It travels in the north-south direction and is located adjacent to the western boundary of the Project Site. It generally provides two travel lanes, one lane in each direction. Unmetered parking with two-hour nighttime restrictions is generally provided on the west side of the street within the Study Area. The approximate width of Seward Street is 30 feet within the Study Area.

As required in the TAG, an inventory was conducted of facilities serving pedestrians, bicyclists, and transit riders within 0.25 miles of the Project Site. The existing intersection mobility facilities at the five analyzed intersections are shown in Figure 5 and the existing transportation facilities and pedestrian destinations within 0.25 miles of the Project Site are shown in Figure 6.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by 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 Project Site is approximately 89 points[1].

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at intersections within the Study Area. Adjacent to the Project Site, approximately 10-foot wide sidewalks are provided along Seward Street, Hudson Avenue, and Romaine Street. All five study intersections provide pedestrian facilities, including curb ramps on all approaches. The signalized intersection at Wilcox Avenue & Santa Monica Boulevard (Intersection #2) provides pedestrian phasing, high-visibility crosswalk striping, and Americans with Disabilities Act (ADA) accessible curb ramps as shown in Figure 5.

---

[1] WalkScore.com rates the Project Site (1000 Seward Street) with a score of 89 of 100 possible points (scores accessed on June 16, 2020 for the Central Hollywood Neighborhood). 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), 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. None of the streets adjacent to the Project Site have been identified as part of the HIN, however, within the Study Area, Santa Monica Boulevard has been identified, as shown in Figure 6.

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 (Class I) 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. These Class IV networks typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets.

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 and Class III bicycle lanes (sharrows).

Within the Study Area, Class III sharrows are provided along Wilcox Avenue. Additional sharrows are provided outside the Study Area in the vicinity of the Project Site along Willoughby Avenue.

Existing Transit System

Figure 7 illustrates the existing transit service in and around the Study Area, which is served by bus lines operated by Metro.

Table 2 summarizes the existing transit service 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 for the stop nearest the Project Site from each respective transit provider, as well as detailed trip data from April 2019 provided by Metro.

Tables 3A and 3B summarize the available capacity of the Metro bus system 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, the Metro bus lines within 0.25 miles walking distance of the Project Site currently provide additional capacity for 270 transit riders during the morning peak hour and 236 transit riders during the afternoon peak hour.

Existing Traffic Volumes

Traffic count data collection is generally conducted during times with typical travel demand patterns (i.e., when local schools are in session, weeks without holidays, etc.). Due to the current traffic conditions related to the State and City's response to COVID-19, LADOT will not accept the use of traffic counts collected after March 1, 2020, and the collection of new traffic counts cannot occur until the Safer At Home order is lifted, local schools are in session, businesses are operational, etc.

Given the uncertainty of the termination of the order, LADOT is allowing the use of historical traffic count data with application of an adjustment factor. Historical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak period intersection traffic counts, conducted when traffic conditions were typical and schools were in session, were available at the following study intersections:

- Intersection #1: Seward Street & Santa Monica Boulevard (Year 2012)
- Intersection #2: Wilcox Avenue & Santa Monica Boulevard (Year 2012)
- Intersection #4: Hudson Avenue & Romaine Street (Year 2018)
- Intersection #5: Wilcox Avenue and Romaine Street (Year 2014)

The historical traffic counts were increased at a rate of 1% per year to reflect Existing Year 2020 traffic volumes.

Peak hour counts at the intersection of Seward Street & Romaine Street (Intersection #3) were not available. Thus, peak hour traffic volume estimation at this location was developed based on available historical peak hour intersection counts and turning movement data at adjacent intersections.

The existing intersection peak hour traffic volumes, representing Existing Conditions in Year 2020, are illustrated in Figure 8. Traffic count worksheets 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 both 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 projections, therefore, include ambient growth, which reflects an increase 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

Although existing traffic is typically expected to increase as a result of regional growth and development, due to the implications of COVID-19, it is speculated that future traffic conditions may show reduced congestion as people shift to telecommuting and fewer vehicle trips are made on a daily basis. Based on discussions with LADOT through the MOU process, an ambient growth factor of 1% per year compounded annually was conservatively applied to the adjusted Existing Conditions traffic volumes to simulate the effects of the regional growth and development by Year 2025. The total adjustment applied over the five-year period between Year 2020 and Year 2025 is 5.10%. This growth factor accounts for increases in traffic due to projects not yet proposed and projects located outside the Study Area.

Related Projects

In accordance with the CEQA Guidelines, this study also considers 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. In accordance with the procedures outlined in the TAG, Related Projects within 0.50 miles of the Project Site were considered for analysis.

The list of Related Projects is based on information provided by LADCP and LADOT in July 2020, 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 9. Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this Study and conservatively assumed to be completed by the Project buildout Year 2025. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in the Hollywood area that would likely occur in the next five 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.

In addition, the list of Related Projects includes the City's draft update to the Hollywood Community Plan, which is currently in the environmental review stages. Based on preliminary information available from the City, the updated Hollywood Community Plan will propose updates to land use policies and plans that would primarily increase commercial and residential development potential in and near the Regional Center Commercial portion of the community and along selected corridors in the Hollywood Community Plan area. Corresponding decreases in development potential would be primarily focused on low- to medium-scale multi-family residential neighborhoods to conserve existing density and intensity of those neighborhoods. The Hollywood Community Plan update, once adopted, will be a long-range plan designed to accommodate population, housing, and employment growth in Hollywood until Year 2040. Only the initial period of any such projected growth would overlap with the Project's future baseline forecast, as the Project would be completed in Year 2025, well before the update to the Hollywood Community Plan's horizon year.

It can be assumed that the projected growth reflected by the list of Related Projects, which in itself is a conservative assumption, as discussed above, would account for any overlapping growth that may be assumed by the updated Hollywood Community Plan upon its adoption. With the addition of the ambient growth factor previously discussed, the Future without Project Conditions is even more conservative. Using these assumptions, the potential traffic impacts of the Project were evaluated. The development of estimated traffic volumes added to the study intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

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, 10th 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 either the trips generated by the existing uses to be removed or the likely use of other travel modes (e.g., transit, bus, bicycling, walking, carpool, etc.). Further, in many cases, they do not account for the internal capture trips within a multi-use development or for the interaction of trips between multiple Related Projects, in which one Related Project serves as the origin for a trip destined for another Related Project.

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

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

Future without Project Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected Project completion year of 2025. 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 2025 and are shown in Figure 11 for the five 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 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 2025. Other proposed traffic/trip reduction strategies such as the proposed creation of a Hollywood Transportation Management Organization (TMO) and Transportation Demand Management (TDM) programs for individual buildings and developments were not applied to the Future Conditions analysis.

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 vehicular lane configurations were made as a result of Mobility Plan. However, the following mobility-enhanced networks included corridors within the Study Area and are depicted in Figure 12. Additional streets within 0.25 miles of the Project Site that are also designated as part of a mobility-enhanced network are also depicted in Figure 12.

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

- Neighborhood Enhanced Network (NEN): The NEN reflects the synthesis of the bicycle and pedestrian networks and serves as a system of local streets that are slow moving and safe enough to connect neighborhoods through active transportation. No streets in the Study Area have been designated as part of the network.

- Bicycle Enhanced Network (BEN) / Bicycle Lane Network (BLN): The Mobility Plan designates Santa Monica Boulevard as part of the BLN.

- Pedestrian Enhanced District (PED): The Mobility Plan aims to promote walking to reduce the reliance on automobile travel by providing more attractive and pedestrian-friendly sidewalks, as well as adding pedestrian signalizations, street trees, and pedestrian-oriented design features. Santa Monica Boulevard west of Seward Street and east of Wilcox Avenue has been designated as part of the PED.

STUDY AREA & ANALYZED INTERSECTIONS

FIGURE
2

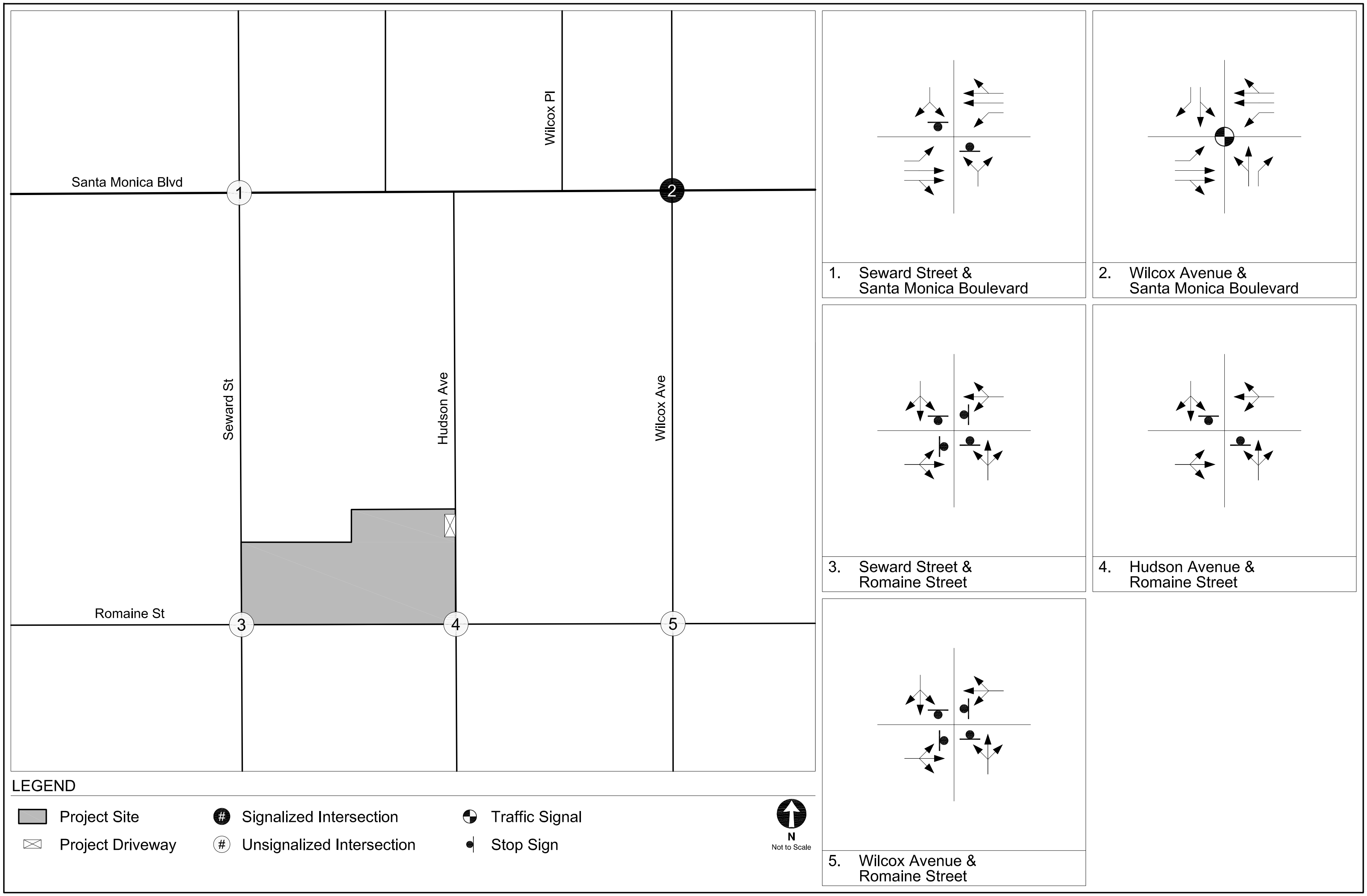
LEGEND

▨ Project Site

N
Not to Scale

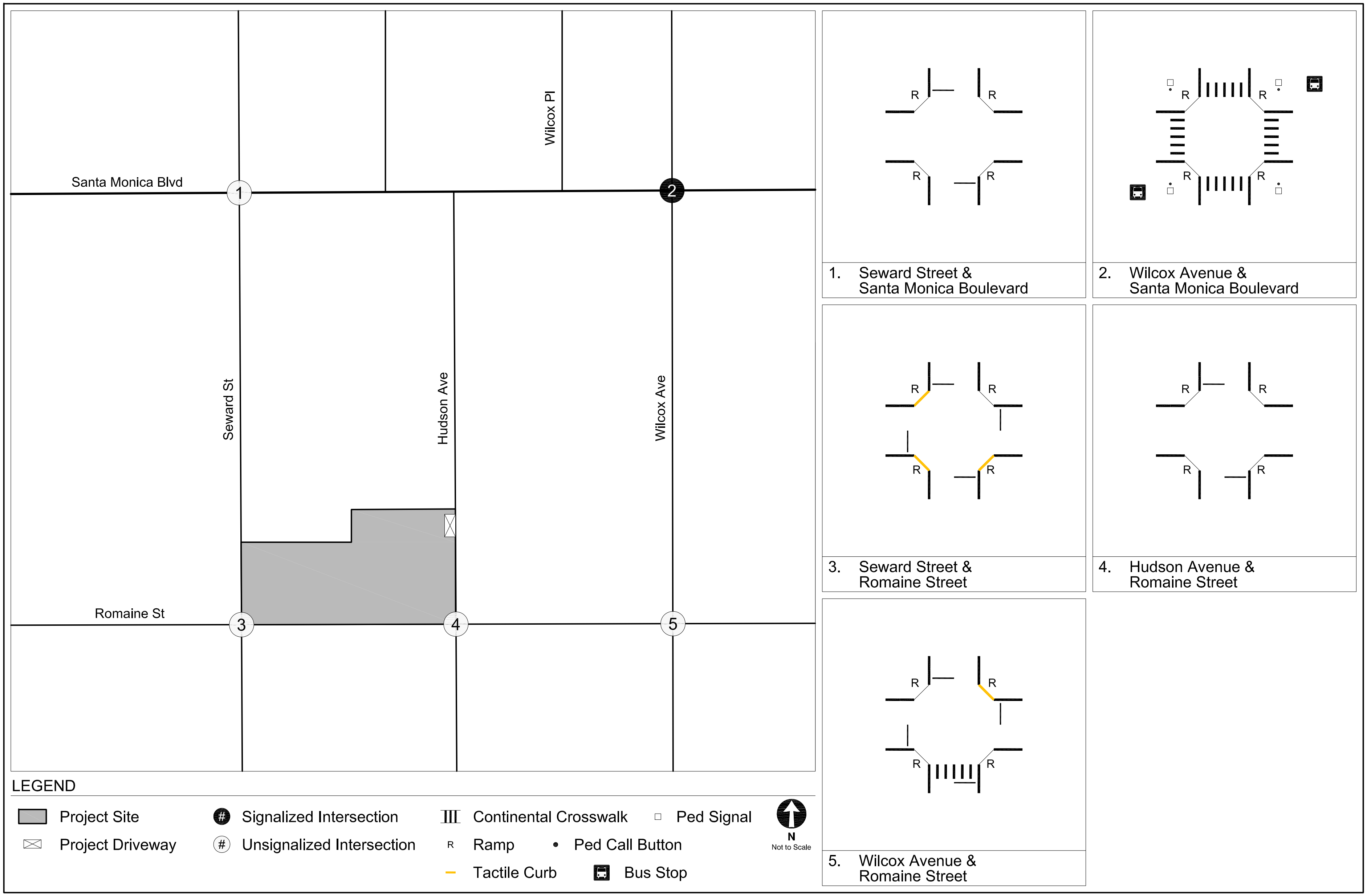
PROJECT SITE LOCATION

FIGURE 3



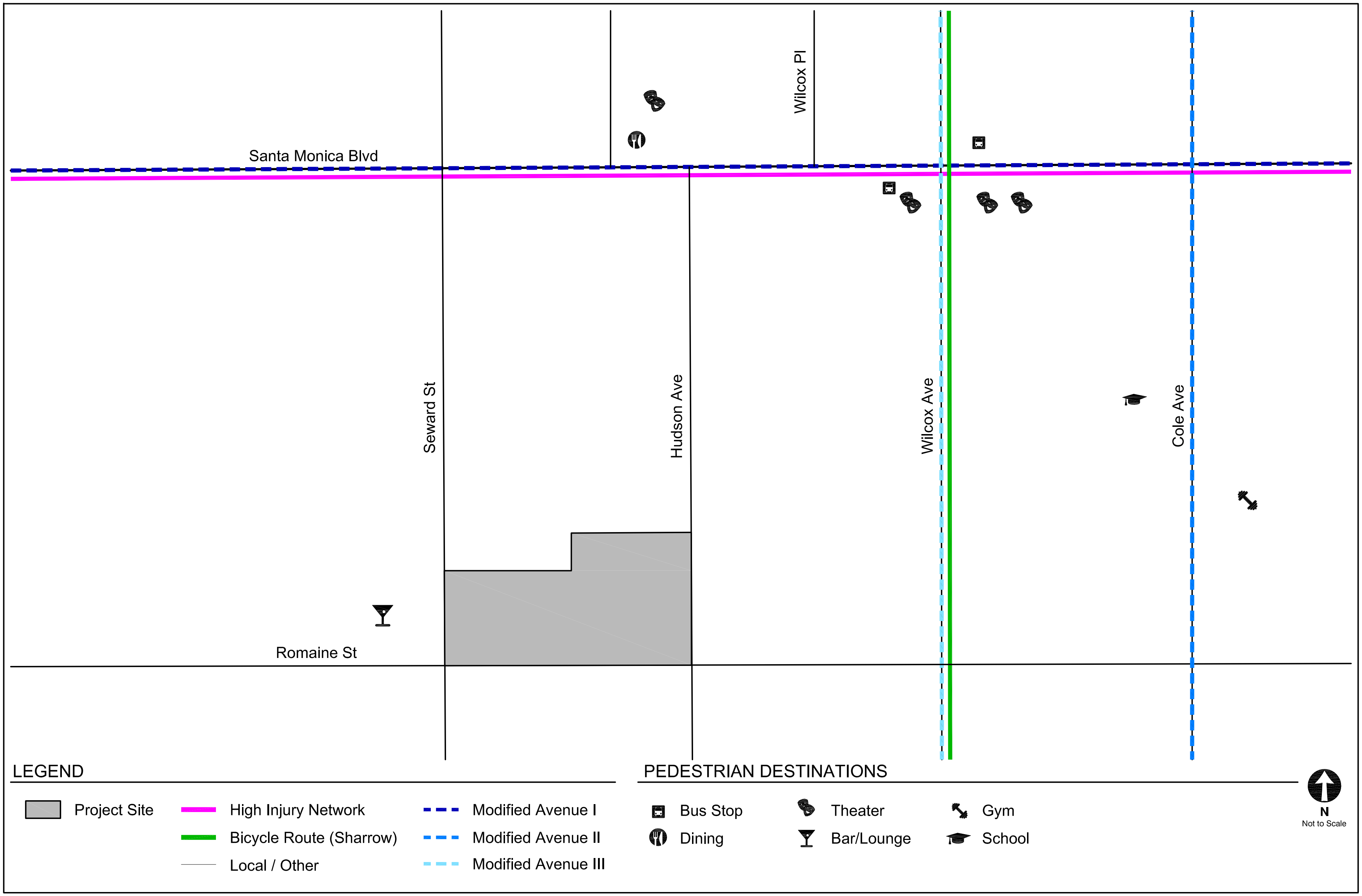
INTERSECTION LANE CONFIGURATIONS

FIGURE 4



EXISTING INTERSECTION MOBILITY FACILITIES

FIGURE 5

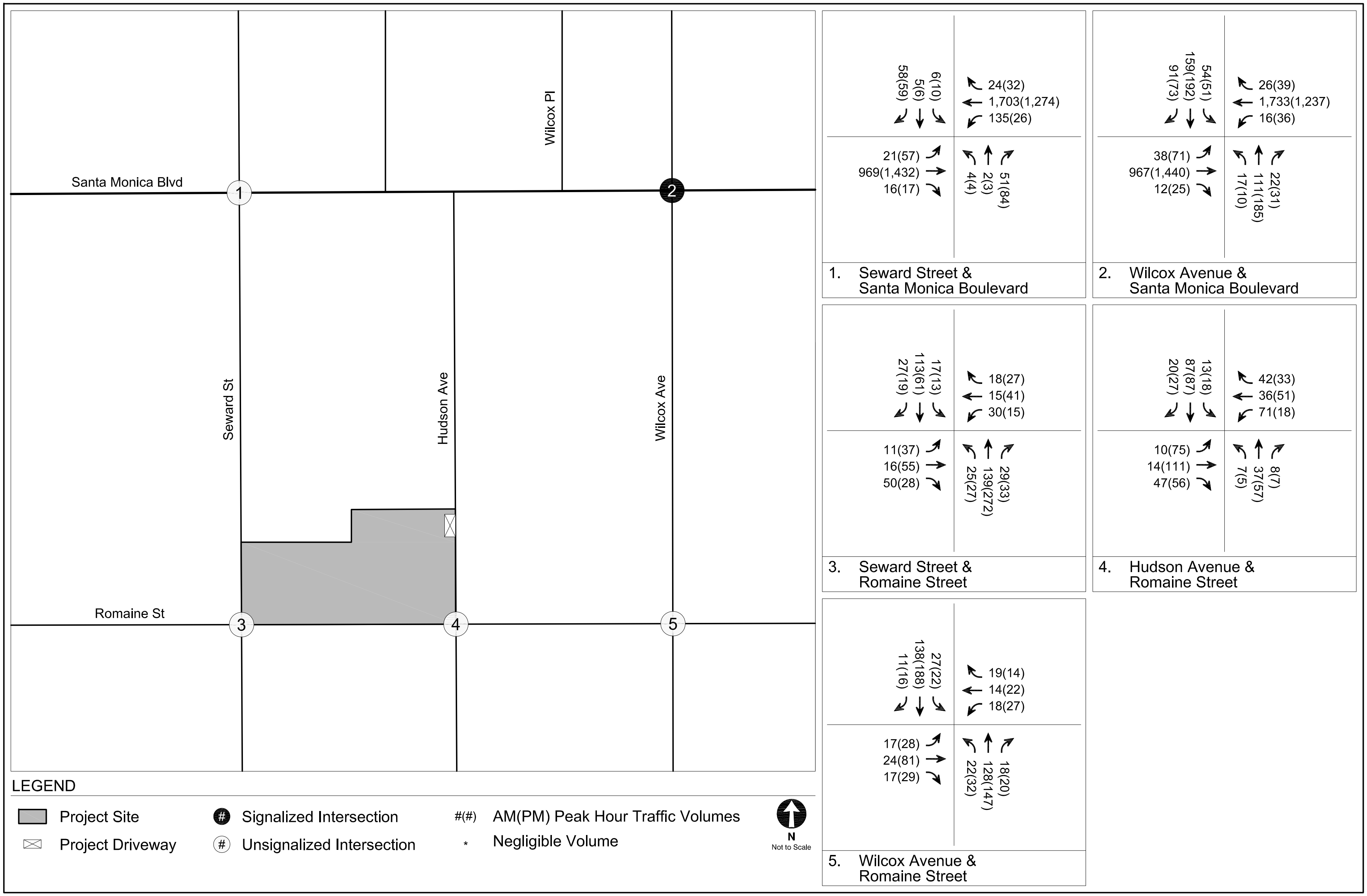


EXISTING TRANSPORTATION FACILITIES & PEDESTRIAN DESTINATIONS

FIGURE 6

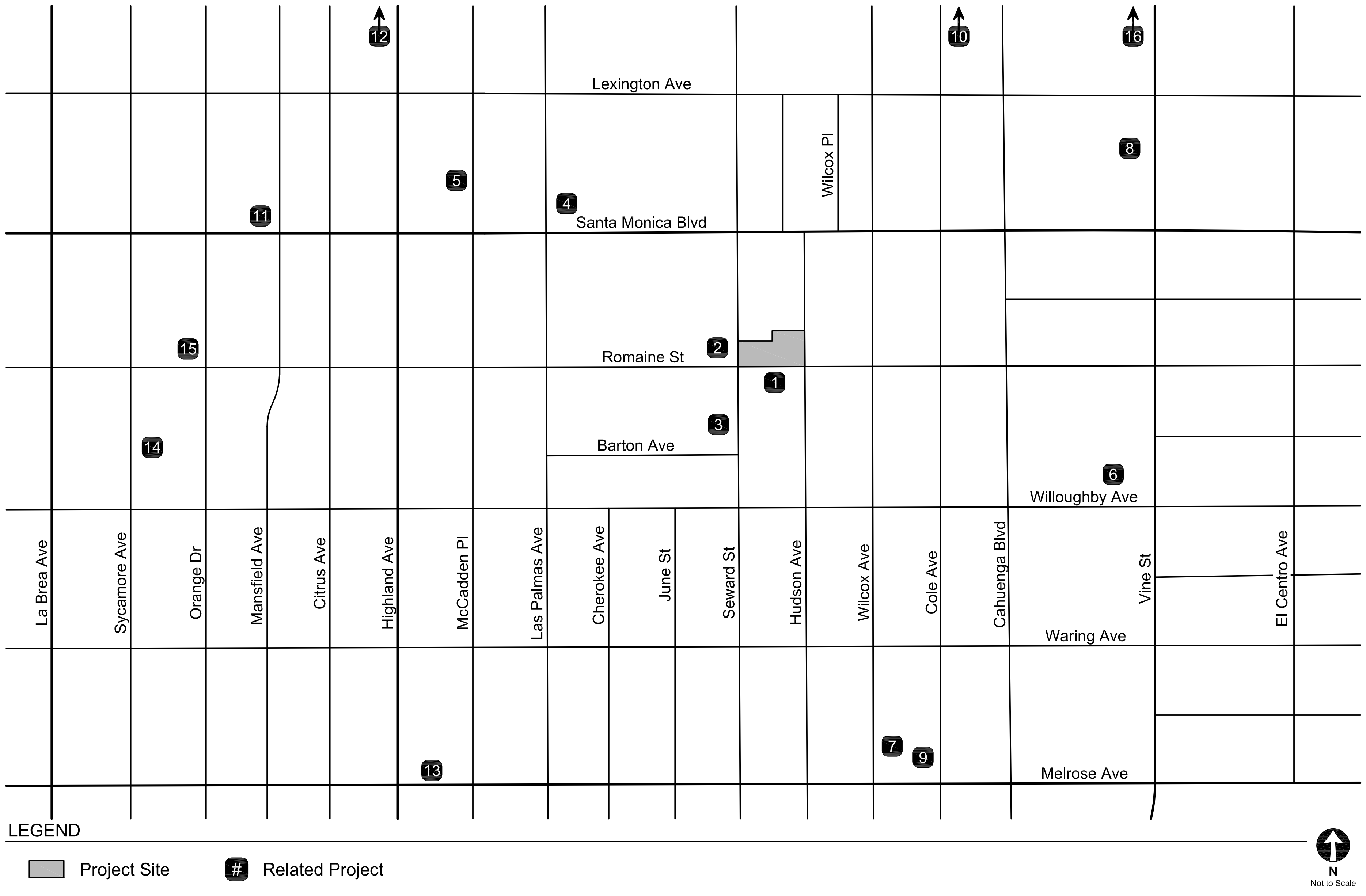
EXISTING TRANSIT SERVICE

FIGURE 7



EXISTING CONDITIONS (YEAR 2020)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
8

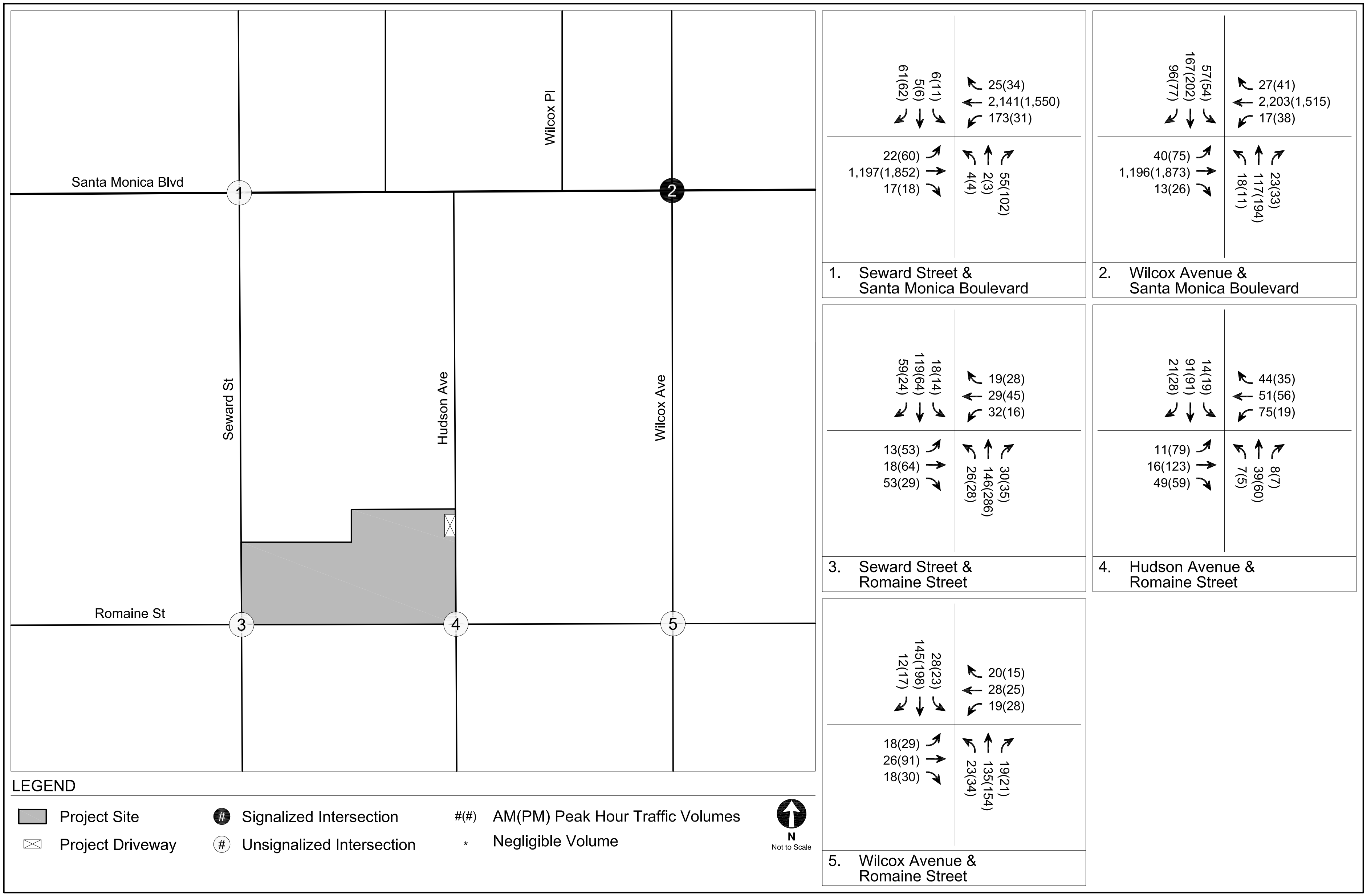


LOCATIONS OF RELATED PROJECTS

FIGURE 9

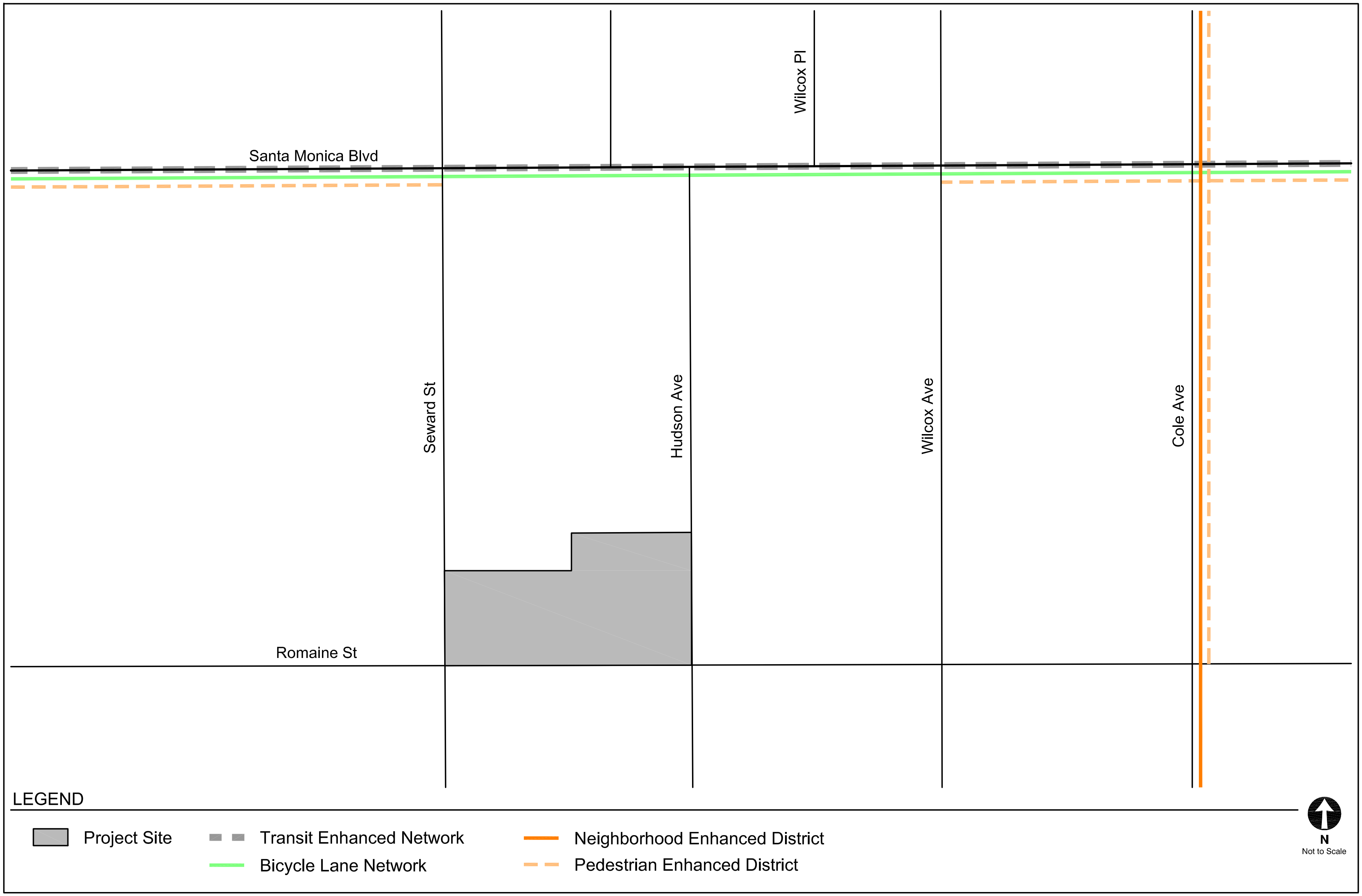
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2025)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
11



ROADWAY MODAL PRIORITIES

FIGURE
12

TABLE 1
STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
1. [a]	Seward Street	Santa Monica Boulevard	City of Los Angeles / Caltrans
2. [b]	Wilcox Avenue	Santa Monica Boulevard	City of Los Angeles / Caltrans
3. [a]	Seward Street	Romaine Street	City of Los Angeles
4. [a]	Hudson Avenue	Romaine Street	City of Los Angeles
5. [a]	Wilcox Avenue	Romaine Street	City of Los Angeles

Notes

[a] Unsignalized Intersection
[b] Signalized Intersection

TABLE 2
EXISTING TRANSIT SERVICE IN STUDY AREA

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				Morning Peak Hour		Afternoon Peak Hour	
Metro Bus Service				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
4	Eastbound to Downtown Los Angeles, Westbound to Santa Monica via Santa Monica Boulevard	Local	24 hours	13	13	10	14
704	Eastbound to Downtown Los Angeles, Westbound to Santa Monica via Santa Monica Boulevard	Rapid	5:30 A.M. - 12:30 A.M.	17	18	20	18

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
NB: Northbound
EB: Eastbound
SB: Southbound
WB: Westbound

TABLE 3A
TRANSIT SYSTEM CAPACITY IN STUDY AREA - MORNING PEAK HOUR

Provider, Route, and Service Area [a]		Capacity per Trip [b]	Peak Hour Ridership [c]				Average Remaining Capacity per Trip		Average Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
4	Eastbound to Downtown Los Angeles, Westbound to Santa Monica via Santa Monica Boulevard	50	17	45	12	29	38	21	171	100
Total Remaining Peak Hour Transit System Capacity									**270**	

Notes

Metro: Los Angeles County Metropolitan Transportation Authority.

NB: Northbound

EB: Eastbound

SB: Southbound

WB: Westbound

[a] This list includes known transit stops within one-quarter mile (1,320 foot) walking distance of the Project Site.

[b] Capacity assumptions:

Metro Bus - 40 seated / 50 standing.

[c] Based on ridership data provided by Metro in 2019.

TABLE 3B
TRANSIT SYSTEM CAPACITY IN STUDY AREA - AFTERNOON PEAK HOUR

Provider, Route, and Service Area [a]		**Capacity per Trip** [b]	**Peak Hour Ridership** [c]				**Average Remaining Capacity per Trip**		**Average Remaining Peak Hour Capacity**	
			Peak Load		**Average Load**					
			NB/EB	**SB/WB**	**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Metro Bus Service										
4	Eastbound to Downtown Los Angeles, Westbound to Santa Monica via Santa Monica Boulevard	50	44	30	32	19	19	31	106	130
								Total Remaining Peak Hour Transit System Capacity	**236**	

Notes

Metro: Los Angeles County Metropolitan Transportation Authority.

NB: Northbound

EB: Eastbound

SB: Southbound

WB: Westbound

[a] This list includes known transit stops within one-quarter mile (1,320 foot) walking distance of the Project Site.

[b] Capacity assumptions:

Metro Bus - 40 seated / 50 standing.

[c] Based on ridership data provided by Metro in 2019.

TABLE 4
RELATED PROJECTS LIST

No.	Project	Address	Use	Trip Generation [a]						
				Daily	Morning Peak Hour			Afternoon Peak Hour		
					In	Out	Total	In	Out	Total
1.	Seward Street Office Project	956 N Seward Street	126,980 sf office	1,240	165	21	186	29	151	180
2.	Hollywood Center Studios Office	6601 W Romaine Street	106,125 sf office	808	88	4	92	12	39	51
3. [b]	Hollywood 959	959 N Seward Street	241,568 sf office	2,337	297	39	336	58	252	310
4. [b]	The Lexington Mixed-Use	6677 W Santa Monica Boulevard	695 apartment units and 24,900 sf commercial	1,938	127	182	309	170	122	292
5.	McCadden Campus (LGBT)	1118 N McCadden Place	45 apartment units, 50,325 sf social service support facility, 17,040 sf office, 1,885 sf commercial, and 100-bed temporary housing	1,346	49	31	80	53	56	109
6.	Mixed-Use	901 N Vine Street	70 apartment units and 3,000 sf commercial	(32)	4	26	30	(5)	1	(4)
7. [b]	Residential	712 N Wilcox Avenue	103 apartment units	550	8	34	42	33	18	51
8. [b]	Hotel	1133 N Vine Street	112 hotel rooms and 661 sf café	457	19	13	32	18	15	33
9. [b]	2014 Residential	707 N Cole Avenue	84 apartment units	398	6	25	31	24	12	36
10.	Mixed-Use	1310 N Cole Avenue	369 apartment units and 2,570 sf office	2,226	20	139	159	139	58	197
11.	Archstone Hollywood Mixed-Use Project	6901-6911 W Santa Monica Boulevard	231 apartment units, 5,000 sf restaurant, and 10,000 sf retail	2,272	1	111	112	133	54	187
12.	Mixed-Use	1233 N Highland Avenue	72 apartment units and 12,160 sf commercial	714	11	27	38	38	28	66
13.	Mixed-Use	6535 W Melrose Avenue	33 apartment units, 2,635 sf restaurant, and 2,321 sf retail	461	13	20	34	20	24	44
14.	926 N Sycamore Office	926 N Sycamore Avenue	70,742 sf media production office	620	64	10	74	13	61	74
15.	7007 W Romaine MU	7007 W Romaine Street	28,468 sf media office and 4,694 sf restaurant	598	42	18	60	24	36	60
16.	1235 Vine Street Project	1235 N Vine Street	109,190 sf office and 7,960 sf restaurant	696	96	19	116	19	91	108

OTHER AREA-WIDE PROJECTS

Project	Description	Extents
Hollywood Community Plan Update	The Hollywood Community Plan Update proposes updates to land use policies and the land use diagram. The proposed changes would primarily increase commercial and residential development potential in and near the Regional Center Commercial portion of the community and along selected corridors in the Community Plan Area. The decreases in development potential would be primarily focused on low to medium scale multi-family residential neighborhoods to conserve existing density and intensity of those neighborhoods. The projected population growth has been captured in the conservative ambient growth rate assumed in the Future analysis.	South of City of Burbank, City of Glendale, and SR 134; west of Interstate 5; north of Melrose Avenue; south of Mulholland Drive, City of West Hollywood, Beverly Hills, including land south of the City of West Hollywood and north of Rosewood Avenue between La Cienega Boulevard and La Brea Avenue.

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in December 2020, Department of City Planning, and recent traffic studies prepared in the area. This list includes known development projects within one-half mile (2,460 foot) of the Project Site.

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

Chapter 3
Project Traffic

This chapter describes the trip generation estimates, trip distribution patterns and trip assignments that were prepared for the Project. These components form the basis of the Project's traffic analysis.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the Project was estimated using rates published for office, shopping center, and high-turnover restaurant uses in *Trip Generation Manual, 10th 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 during the morning and afternoon peak hours, as well as daily (24-hour) relative to the size of development of each land use and is independent from the parking supply.

In consultation with LADOT during the MOU process, allowable trip generation reductions to account for internal capture, public transit usage/walking arrivals, and pass-by trips:

- Internal Capture: A 10% internal capture adjustment was applied to the commercial trip generation estimates to account for person trips made between the different uses of the Project without requiring an additional vehicle trip.

- Transit/Walk-In: The Project site is located within 0.25 miles of a Metro Local Bus stop (Line 4) at Wilcox Avenue & Santa Monica Boulevard; therefore, a 10% transit/walk-in adjustment was applied to the Project to account for transit usage and walk-in arrivals from surrounding neighborhoods and adjacent commercial developments.

- Pass-By: Consistent with Attachment H of the TAG, 50% and 20% pass-by adjustments were applied to the retail and restaurant trip generation estimates, respectively, to account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

The number of trips currently generated by the existing uses of the Project Site was also estimated using the rates published in *Trip Generation Manual, 10th Edition* for general office building and high-turnover restaurant uses. Reductions were also applied to account for some level of internal capture, transit usage/walking arrivals and pass-by trips.

After accounting for the trip reductions above and the removal of the existing uses, the Project is anticipated to generate 195 net new morning peak hour trips (147 inbound, 48 outbound) and 193 net new afternoon peak hour trips (58 inbound, 135 outbound), as summarized in Table 5.

PROJECT TRIP DISTRIBUTION

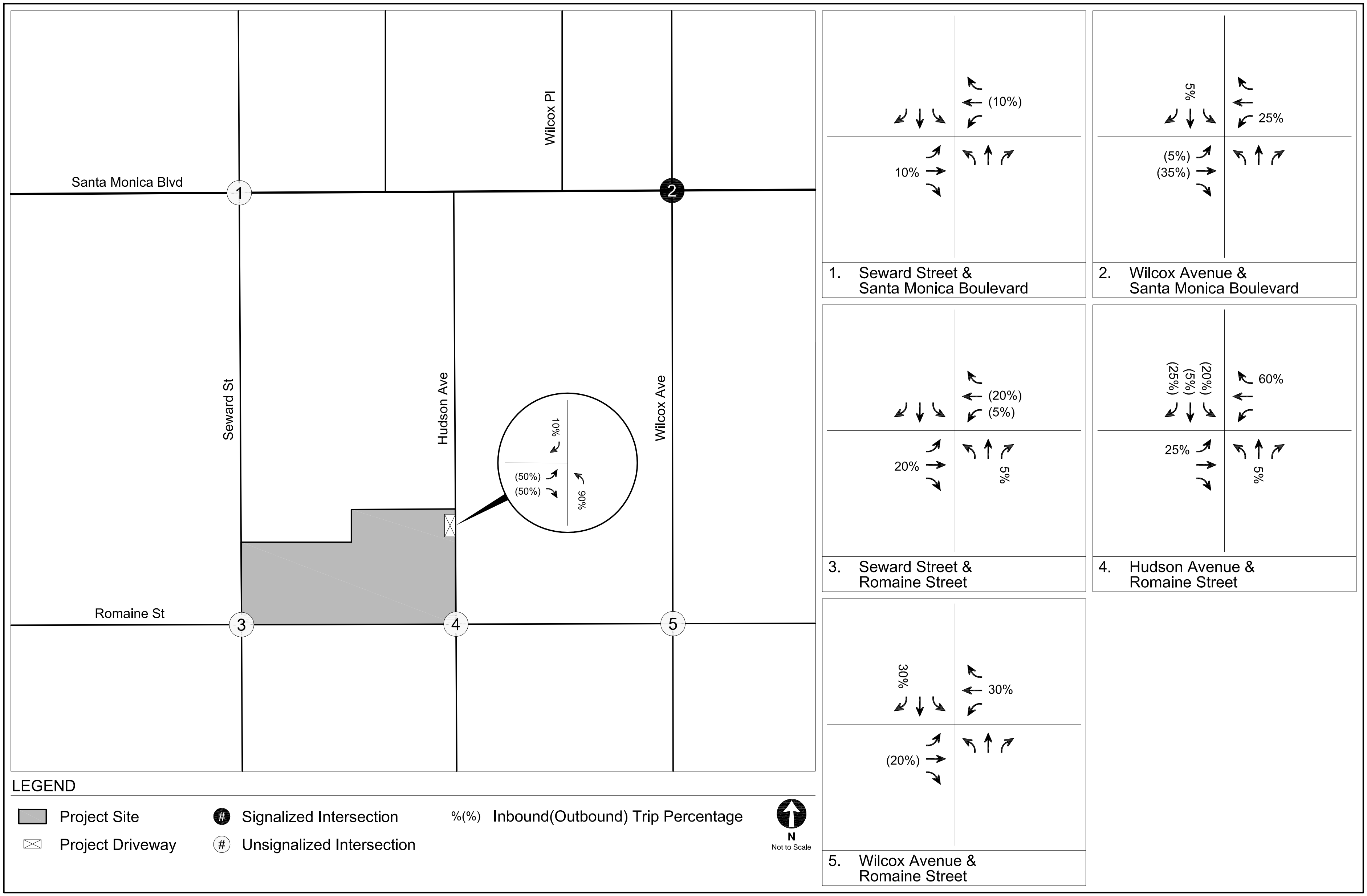
The geographic distribution of trips generated by the Project is dependent on the location of residential and commercial centers from which employees and guests of the Project would be drawn, characteristics of the street system serving the Project Site, and the level of accessibility of the routes to and from the Project Site, existing intersection traffic volumes, the Project ingress/egress availability based on the proposed site access and circulation scheme, the location of the proposed driveways, as well as input from LADOT staff.

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

- 20% to/from the north
- 30% to/from the south
- 35% to/from the east
- 15% to/from the west

PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 5 and the trip distribution patterns shown in Figure 13 were used to assign the Project-generated traffic through the study intersections. Figure 14 illustrates the Project-only traffic volumes at the study intersections during typical weekday morning and afternoon peak hours.



PROJECT TRIP DISTRIBUTION

FIGURE 13

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
14

TABLE 5
TRIP GENERATION ESTIMATES

Land Use	ITE Land Use	Rate	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates [a]								
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
High-Turnover (Sit-Down) Restaurant	932	per ksf	55%	45%	9.94	62%	38%	9.77
Proposed Project								
Office	710	136.200 ksf	136	22	158	25	132	157
Transit/Walk Adjustment - 10% [b]			*(14)*	*(2)*	*(16)*	*(3)*	*(13)*	*(16)*
Subtotal - Office			**122**	**20**	**142**	**22**	**119**	**141**
Commercial - Retail	820	2.200 ksf	1	1	2	4	4	8
Internal Capture Adjustment - 10% [c]			*0*	*0*	*0*	*0*	*(1)*	*(1)*
Transit/Walk Adjustment - 10% [b]			*0*	*0*	*0*	*0*	*0*	*(1)*
Pass-by Adjustment - 50% [d]			*(1)*	*(1)*	*(1)*	*(2)*	*(2)*	*(3)*
Commercial - Restaurant	932	12.200 ksf	67	54	121	74	45	119
Internal Capture Adjustment - 10% [c]			*(7)*	*(5)*	*(12)*	*(7)*	*(5)*	*(12)*
Transit/Walk Adjustment - 10% [b]			*(6)*	*(5)*	*(11)*	*(7)*	*(4)*	*(11)*
Pass-by Adjustment - 20% [d]			*(11)*	*(9)*	*(20)*	*(12)*	*(7)*	*(19)*
Subtotal - Commercial			**43**	**35**	**78**	**48**	**29**	**77**
TOTAL PROPOSED PROJECT TRIPS			**165**	**55**	**220**	**70**	**148**	**218**
Existing Uses to be Removed								
Office	710	8.442 ksf	9	1	10	2	8	10
Transit/Walk Adjustment - 10% [b]			*(1)*	*0*	*(1)*	*0*	*(1)*	*(1)*
Commercial - Restaurant	932	2.551 ksf	14	11	25	16	9	25
Internal Capture Adjustment - 10% [c]			*(1)*	*(2)*	*(3)*	*(2)*	*(1)*	*(3)*
Transit/Walk Adjustment - 10% [b]			*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*
Pass-by Adjustment - 20% [d]			*(2)*	*(2)*	*(4)*	*(3)*	*(1)*	*(4)*
Total - Existing Uses to be Removed			***(18)***	***(7)***	***(25)***	***(12)***	***(13)***	***(25)***
TOTAL NET NEW PROJECT TRIPS			**147**	**48**	**195**	**58**	**135**	**193**

ksf: 1,000 square feet

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

[b] The Project site is located within a 1/4 mile of a Metro Local Bus stop (Line 4) at Santa Monica Boulevard and Wilcox Avenue, therefore a 10% transit adjustment was applied to account for transit usage and walking visitor arrivals.

[c] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development (i.e., between residential and retail).

[d] 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.

Chapter 4

CEQA Analysis of Transportation Impacts

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

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 shifts from driver delay (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 Caltrans freeway off-ramp 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 conflicts 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,* which 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, was completed for the Project and is 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 are provided below.

Mobility Plan

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

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

- World Class Infrastructure: A well-maintained and connected network of streets, paths, bikeways, trails, and more provides Angelenos with the optimum variety of mode choices.
- Access for All Angelenos: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.
- Collaboration, Communication, and Informed Choices: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the future. The amount of information made available by new technologies must be managed responsibly in the future.
- Clean Environments and Healthy Communities: Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

A detailed analysis of the Project's consistency with the Mobility Plan is provided in Table 6. As detailed in Chapter 2, the Mobility Plan identifies key corridors within the Study Area as components of various "mobility-enhanced networks." Though no specific improvements have been identified and there is no schedule for implementation, the mobility-enhanced networks represent a focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The Project would be designed with the mobility-enhanced networks as a top priority.

As discussed above, the three streets adjacent to the Project Site are classified as Local Streets in the Mobility Plan. Consistent with the driveway location planning guidelines, vehicular access to the Project would be placed on a non-arterial street, Hudson Avenue. The driveway would be located on a Local Street so as not to disrupt the operations of Santa Monica Boulevard, the Arterial Street nearest the Project. The driveway would be designed in accordance with the standards set forth in *Manual of Policies and Procedures* (LADOT, December 2008). As further detailed in Section 5E, the Project would provide sufficient off-street parking to satisfy Los Angeles Municipal Code (LAMC) requirements and accommodate the Project's parking demand on-site, and the parking supply would not result in induced demand for drive-alone trips. Furthermore, the Project would implement TDM strategies to reduce single occupancy vehicle trips to the Project Site. The Project would also retain existing on-street parking around the Project frontage, as well as potentially gain additional on-street parking along Romaine Street with the removal of existing curb cuts.

The Project would also enhance pedestrian access within and around the Project Site by providing a commercial plaza entrance into the Project from Romaine Street and improvements to the sidewalk landscaping and street trees within the Project's entrance area and along the perimeter of the Project Site. 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. Further, the Project supports healthy lifestyles by locating jobs near transit (Metro Local and Rapid Bus Lines), providing bicycle amenities, and enhancing the pedestrian environment by providing shade trees and landscaping for a more comfortable pedestrian environment.

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

Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 community plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. This Project falls within the boundaries of the Hollywood Community Plan.

A detailed analysis of the Project's consistency with the Hollywood Community Plan is provided in Table 8. The Project would provide employment opportunities with the proposal of new office, restaurant, and retail land uses to further the development of Hollywood as a major center of employment and retail services. The Project is consistent with the circulation standards and criteria of the Hollywood Community Plan as the transportation system within the vicinity of the Project Site would adequately serve the traffic generated by the Project without major congestion, as further detailed in Section 5B. In addition, the Project would implement TDM strategies to further reduce the number of single-occupancy vehicle trips generated by the Project, as discussed in further detail in Section 4B. Thus, the Project would promote and encourage development standards in line with the goals and objectives of the Hollywood Community Plan.

The City is currently in the process of updating the Hollywood Community Plan to guide development for the Hollywood area through Year 2040. *Hollywood Community Plan Update Draft Environmental Impact Report* (Terry A. Hayes Associates, Inc., November 2018) was released for public review in October 2019. As of August 2020, the City is continuing its outreach and engagement with area stakeholders to collect comments to the draft plan in preparation of the formal adoption process that is anticipated to begin in Year 2021.

LAMC Section 12.21.A.16

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. As further detailed in Section 4G, per LAMC Table 22.112.100-A, the Project would require a total of 21 short-term and 34 long-term spaces. to satisfy the LAMC requirements for on-site bicycle parking supply. Thus, the Project's proposed supply would satisfy the bicycle parking requirements per LAMC Section 12.21.A.16.

LAMC Section 12.26J (TDM Ordinance)

LAMC Section 12.26J, the TDM Ordinance (1993) establishes TDM requirements for non-residential projects, in addition to non-residential components of the mixed-use projects, in excess of 25,000 sf. Key requirements of the TDM Ordinance applicable to the Project include providing carpool / vanpool loading areas, walkways between buildings and public sidewalks, and improving adjacent bus stops to the satisfaction of local transit agencies.

Pursuant to the requirements of the TDM Ordinance, the Project design would implement the following TDM strategies:

- Promotions and marketing
- Bicycle parking
- Bicycle amenities
- Pedestrian network improvements

The Project would also implement reductions in the parking supply and a parking cash-out program to further encourage non-vehicle travel to the Project Site. These features are discussed in detail in Section 4B. The Project would be consistent with the current TDM Ordinance and is, therefore, consistent with LAMC Section 12.26J.

LAMC Section 12.37 (Waivers of Dedications and Improvement)

LAMC Section 12.37 states that a project must dedicate and improve adjacent streets to half-ROW standards consistent with the street designations of the Mobility Plan if the site abuts an Arterial or Collector street. None of the streets adjacent to the Project Site are designated Arterial or Collector streets. Therefore, LAMC Section 12.37 does not apply to the Project. Nevertheless, the Project would include all dedications and corner cuts necessary to meet City standards and no Waiver of Dedication and Improvement would be requested.

Vision Zero Corridor Plans

Vision Zero implements projects that are designed to increase safety on the most vulnerable City streets. The City has identified a number of streets as part of the HIN where City projects will be targeted. None of the streets adjacent to the Project Site have been identified as part of the HIN.

Nonetheless, the Project improvements to the pedestrian environment would not preclude future Vision Zero Safety Improvements by the City. Thus, the Project would not conflict with Vision Zero.

Streetscape Plans

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

Citywide Design Guidelines

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

The Pedestrian-First Design guidelines are as follows:

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

A detailed analysis of the Project's consistency with the guidelines of the Pedestrian-First Design approach is provided in Table 9.

The Project design includes accessible sidewalks, access to nearby pedestrian amenities, and a vehicular access driveway designed in accordance with the City's design considerations. The Project would implement landscaping and 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, including an open, outdoor commercial plaza along Romaine Street, would ensure that the Project actively engages with the street and its surrounding uses. Thus, the Project design includes pedestrian facilities and amenities to provide a more comfortable and engaging environment for pedestrians aligning with the Pedestrian-First Design approach.

CUMULATIVE ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby Related Projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must include consideration of any Related Projects within 0.50 miles of the Project Site and any transportation system improvements in the vicinity. Related Projects located within 0.50 miles of the Project site are identified in Table 4.

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

TABLE 6
PROJECT 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.	**Consistent.** With development of the Project, Seward Street, Hudson Avenue, and Romaine Street along the Project frontage would be improved to provide adequate pedestrian safety and refuge areas. The Project would also include all dedications and corner cuts necessary to safeguard and meet the goals and long-term needs of the Mobility Plan. Further, the Project would not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project driveway would not be proposed along a street with an existing bicycle facility.
Policy 1.2 Complete Streets Implement a balanced transportation system on all streets, tunnels, and bridges using complete streets principles to ensure the safety and mobility of all users.	**Consistent.** The Project Site is located in the vicinity of several Complete Street Networks that each prioritize a specific mode with the goal of providing improved connectivity around the Project Site. The Transit-Enhanced Network (TEN) includes streets that prioritize travel for public transit riders. TEN improvements often include prioritizing bus lanes and/or providing enhanced transit amenities at existing stops. Santa Monica Boulevard north of the Project Site is identified as part of the TEN. The Bicycle Enhanced Network (BEN) and Bicycle Lane Network (BLN) includes low-stressed protected bicycle paths, lanes, and routes that prioritize bicycle safety by providing improved bicycle facilities. Santa Monica Boulevard is also identified as part of the BLN. Finally, Pedestrian-Enhanced Districts (PED) include arterial streets that could benefit from additional pedestrian amenities to improve the overall safety and attractiveness of walking connectivity. Santa Monica Boulevard west of Seward Street and east of Wilcox Avenue is identified as part of the PED. The Project would not interfere with the City's goals of the Complete Streets Network.
Chapter 2 - World Class Infrastructure	
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.	**Consistent.** The Project provides pedestrian and bicycle access via the commercial plaza entrance on Romaine Street. This entrance is separate from the vehicular access on Hudson Avenue. Sidewalks along the east, south, and west boundaries of the Project Site provide connectivity to curb ramps at adjacent intersections. The study intersection of Wilcox Avenue and Santa Monica Boulevard east of the Project Site includes pedestrian phasing and high-visibility continental crosswalks. Thus, the Project ensures high-quality pedestrian access and provides a safe and comfortable walking environment.
Policy 2.5 Transit Network Improve the performance and reliability of existing and future bus service.	**Consistent.** As discussed above, the TEN includes streets that prioritize travel for public transit riders. TEN improvements often include prioritizing bus lanes and/or providing enhanced transit amenities at existing stops. Santa Monica Boulevard north of the Project Site is identified as part of the TEN. The Project supports the goals of the TEN.
Policy 2.6 Bicycle Networks Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. (includes scooters, skateboards, rollerblades, etc.)	**Consistent.** As discussed above, the BEN/BLN includes low-stressed protected bicycle paths, lanes, and routes that prioritize bicycle safety by providing improved bicycle facilities. Santa Monica Boulevard is identified as part of the BLN. Further, the Project Site also provides 22 short-term bicycle parking spaces and 36 long-term bicycle parking spaces for all uses on-site. The Project supports the goals of the BEN/BLN.

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 3 - Access for All Angelenos	
Policy 3.1 Access for All Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes – including goods movement – as integral components of the City's transportation system.	**Consistent.** As discussed above, the Project would provide pedestrian and bicycle access via the commercial plaza entrance on Romaine Street. This entrance is separate from the vehicular access on Hudson Avenue. Sidewalks along the east, south, and west boundaries of the Projec Site would provide connectivity to curb ramps at adjacent intersections.Additionally, the Project would provide 22 short-term bicycle parking spaces and 36 long-term bicycle parking spacesfor all uses on-site, and Santa Monica Boulevard north of the Project Site is identified as part of the BEN. Transit bus service is provided in and around the Study Area by Metro Local and Metro Rapid bus lines. As such, the Project recognizes all moves of travel as integral to the City of Los Angeles' (City) transportation system and would encouragemulti-modal access to the Project Site.
Policy 3.2 People with Disabilities Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	**Consistent.** The Project's vehicular and pedestrian entrances would be designed in accordance with 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 nearby intersections.
Policy 3.8 Bicycle Parking Provide bicyclists with convenient, secure, and well-maintained bicycle parking facilities.	**Consistent.** As discussed above, the Project would provide 22 short-term bicycle parking spaces and 36 long-term bicycle parking spacesfor all uses on-site, and Santa Monica Boulevard north of the Project Site are identified as part of the BEN.
Chapter 4 - Collaboration, Communication, & Informed Choices	
Policy 4.8 Transportation Demand Management Strategies Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	**Consistent.** The Project would incorporate several design features, which include TDM measures as defined by the VMT Calculator to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Reduce parking supply - provide 310 spaces of base LAMC requirement of 403 spaces •Parking cash-out - 30% employee eligible •Promotions & marketing - 100% employee eligible •Include bike parking per LAMC, including short-term and long-term parking facilities •Include secure bike parking and showers •Pedestrian network improvements, within the Project site and connecting off-site
Policy 4.13 Parking and Land Use Management Balance on-street and off-street parking supply with other transportation and land use objectives.	**Consistent.** The Project would provide sufficient off-street parking to accommodate Project parking demand. The Project would also retain the existing on-street parking around Project frontage.
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.	**Consistent.** As part of the Project, secured bicycle parking facilities and pedestrian connections within the Project Site and connecting to off-site pedestrian facilities would be provided. This would promote active transportation modes such as biking and walking. Additionally, transit bus service is provided in and around the Study Area by Metro Local and Metro Rapid bus lines, providing residents, employees, and visitors to the Project with public transportation alternatives.
Policy 5.2 Vehicle Miles Traveled (VMT) Support ways to reduce vehicle miles traveled (VMT) per capita.	**Consistent.** The Project is estimated to generate lower VMT per capita for residents and employees than the average for the area, as demonstrated in Section 3B. Additionally, the Project would incorporate several design features, which include TDM measures as defined by the VMT Calculator to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Reduce parking supply - provide 310 spaces of base LAMC requirement of 420 spaces •Promotions & marketing - 100% employee eligible •Include bike parking per LAMC, including short-term and long-term parking facilities •Include secure bike parking and showers •Pedestrian network improvements, within the Project site and connecting off-site

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.	**Consistent.** The Project would enhance pedestrian access within and around the Project Site by providing access via the commercial plaza entrance on Romaine Street. This entrance is separate from the vehicular access on Hudson Avenue. Sidewalks along the east, south, and west boundaries of the Project Site provide connectivity to curb ramps at adjacent intersections. The study intersection of Wilcox Avenue and Santa Monica Boulevard east of the Project Site includes pedestrian phasing and high-visibility continental crosswalks. Sidewalk landscaping and street trees would be implemented within the Project's entrance area and along the perimeters of the Project Site. Further, the Project would provide infrastructure and services to encourage bicycling for residents, employees, and visitors to the Project Site. There would be 21 short-term and 34 long-term bicycle parking spaces provided by the Project. As such, it would encourage the use of active travel modes and thereby promote healthy living.
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.	**Consistent.** The Project would provide open space to support active living. The commercial plaza entrance provides an open, accessible area for outdoor rest and recreation, and users of the Project Site will have access to basic amenities including restrooms and drinking water.
Chapter 5 - An Environment Where Life Thrives	
Policy 5.7 Land Use Planning for Public Health and GHG Emission Reduction Promote land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors and others susceptible to respiratory diseases.	**Consistent.** The Project is estimated to generate lower VMT per capita for residents and employees than the average for the area, as demonstrated in Section 4B. Additionally, the Project would incorporate several design features, which include TDM measures as defined by the VMT Calculator to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Reduce parking supply - provide 310 spaces of base LAMC requirement of 403 spaces •Parking cash-out - 30% employee eligible •Promotions & marketing - 100% employee eligible •Include bike parking per LAMC, including short-term and long-term parking facilities •Include secure bike parking and showers •Pedestrian network improvements, within the Project site and connecting off-site VMT directly contributes to GHG emissions, so a reduced VMT per capita also reduces GHG per capita.

Notes:

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

TABLE 8
PROJECT CONSISTENCY WITH HOLLYWOOD COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Objective 1: To coordinate the development of Hollywood with that of other parts of the City of Los Angeles and the metropolitan area. To further the development of Hollywood as a major center of population, employment, retail services, and entertainment; and to perpetuate its image as the international center of the motion picture industry.	**Consistent.** The Project would provide office, restaurant, and retail land uses, contributing to the development of Hollywood as a major center or employment and retail services.
Objective 6: To make provision for a circulation system coordinated with land uses and densities and adequate to accommodate traffic; and to encourage and the expansion and improvement of public transportation service.	**Consistent.** Transit bus service is provided in and around the Study Area by Metro Local and Metro Rapid bus lines. The Project Site's close proximity to transit would allow employees and visitors to utilizes such services while traveling to and from the Project Site.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in the *Hollywood Community Plan,* Los Angeles Department of City Planning, 1988.

TABLE 9
PROJECT CONSISTENCY WITH CITYWIDE DESIGN GUIDELINES

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Pedestrian-First Design	
Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all Design projects to be safe and accessible and contribute to a better public right-of-way for people of all ages, genders, and abilities, especially the most vulnerable - children, seniors, and people with disabilities. **Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience** Design to avoid pedestrian and vehicular conflicts and to create an inviting and comfortable public right-of-way. A pleasant and welcoming public realm reinforces walkability and improves the quality of life for users. **Guideline 3: Design projects to actively engage with streets and public space and maintain human scale** New projects should be designed to contribute to a vibrant and attractive public realm that promotes a sense of civic pride. Better connections within the built environment contribute to a livable and accessible city and a healthier public realm.	**Consistent.** The Project design includes accessible sidewalks, access to nearby pedestrian amenities, and a vehicular access driveway designed in accordance with the City's design considerations. The Project would implement landscaping and 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, including an open, outdoor commercial plaza along Romaine Street would ensure that the Project actively engages with the street and its surrounding uses.

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 would generate household VMT per capita exceeding 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 would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which the project is located.

The VMT analysis presented below was conducted in accordance with the TAG, which satisfies State requirements under SB 743.

VMT METHODOLOGY

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

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

As detailed in *City of Los Angeles VMT Calculator Documentation*, the household VMT per capita threshold applies to Home-Based Work Production and Home-Based Other Production trips, and the work VMT per employee threshold applies to Home-Based Work Attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research, December 2018).

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for the APC areas:

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

Source: TAG (LADOT, July 2019)

The Project is located within the Central APC.

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

Travel Behavior Zone (TBZ)

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

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

The VMT Calculator determines a project's TBZ based on the latitude and longitude of a project address. The Project located within a Zone 3 Compact Infill TBZ.

Mixed-Use Development Methodology

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

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

Trip Lengths

The VMT Calculator determines a project's VMT based on trip length information from the City's Travel Demand Forecasting Model, which considers the traffic analysis zones within 0.125 miles of a project to determine the average trip length and trip type, which factor into the calculation of a project's VMT.

Population and Employment Assumptions

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

TDM Measures

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

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

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

PROJECT VMT ANALYSIS

The VMT Calculator was used to evaluate Project VMT for comparison to the VMT impact criteria. Based on guidance from the City, the VMT Calculator was modeled for the Project's land uses and their respective sizes as the primary input.

The Project does not include any residential uses. Therefore, per *City of Los Angeles VMT Calculator User Guide* (LADOT and LADCP, May 2020), the Project would not generate any household VMT per capita and would not result in a significant household VMT impact. In addition, the Project includes small-scale commercial retail and restaurant components totaling less than 50,000 sf of a larger mixed-use development. Therefore, as noted in the TAG, the restaurant component of the Project is not considered for the purposes of identifying significant work VMT impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT. However, the restaurant component is part of the larger mixed-use Project and was, therefore, conservatively considered in the Project VMT analysis.

Thus, the VMT analysis presented below evaluates the work VMT per employee generated by the office uses of the Project.

Project VMT

The Project incorporates several design features which include measures to reduce the number of single occupancy vehicle trips to the Project Site. For the purposes of this analysis, the following Project design features were accounted for in the VMT evaluation:

- Reduce Parking Supply to provide less parking than the direct LAMC requirement without consideration of additional parking reduction mechanisms (i.e., Bicycle Parking Ordinance or Enterprise Zone areas, etc.)

- Parking Cash-Out to offer employees the opportunity to “cash-out” the monthly value of their currently free or subsidized parking space

- Promotions & Marketing to educate and inform travelers about site-specific transportation options and the effects of travel choices

- Bike parking per LAMC, including short-term and long-term parking facilities, to support safe and comfortable bicycle travel

- Include secure bike parking and showers to support safe and comfortable bicycle travel by providing end-of-trip amenities

- Pedestrian network improvements within the Project site and connecting to off-site pedestrian facilities to encourage walking

The VMT analysis results based on the VMT Calculator are summarized in Table 10. The VMT Calculator estimates that the Project would generate a total daily VMT of 11,717 and a daily work VMT of 4,509. Thus, the Project would generate an average work VMT per employee of 7.5. The average work VMT per employee would not exceed the Central APC significant work VMT impact threshold of 7.6, and therefore, the overall Project would not result in a significant VMT impact and no mitigation measures would be required.

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

CUMULATIVE ANALYSIS

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

As detailed in the TAG, for projects that do not demonstrate a project impact by applying an efficiency-based impact threshold (i.e., household VMT per capita 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 greenhouse gas goals of the RTP/SCS.

As described above, the Project would not result in a significant VMT impact. Further, the Project would be designed to further reduce single occupancy trips to the Project Site through various TDM strategies that would be incorporated as part of the Project design, including provisions of LAMC-required bicycle parking, secure bicycle parking and showers, and pedestrian network improvements. Therefore, the Project would result in a less-than-significant cumulative impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

Furthermore, the Project includes a mix of commercial uses. The Project Site is well-served by various local and rapid bus lines. The Project 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 infrastructure and active street frontages, in line with RTP/SCS goals. Thus, the Project would encourage a variety of transportation options and would be consistent with the RTP/SCS goal of maximizing mobility and accessibility in the region.

TABLE 10
VMT ANALYSIS SUMMARY

Project Information	
Land Use	**Size**
Office | General Office	136,200 sf
Retail | General Retail	2,200 sf
Retail | High-Turnover Sit-Down Restaurant	12,200 sf
Project Analysis *[a]*	
Resident Population [b]	0
Employee Population [c]	598
Project Area Planning Commission	Central
Travel Behavior Zone (TBZ)	Compact Infill
Maximum Allowable VMT Reduction [d]	40%
VMT Analysis [e]	
Daily Vehicle Trips	1,542
Daily VMT	11,717
Household VMT per Capita [f]	N/A
Impact Threshold	6.0
Significant Impact	-
Work VMT per Employee [e]	7.5
Impact Threshold	7.6
Significant Impact	NO

Notes:

[a] Project Analysis based on the *City of Los Angeles VMT Calculator Version 1.3* (July 2020).

[b] Total Population and Household VMT do not apply to the land uses of this Project.

[c] Total Employment estimate is based on the following employment factors:

General Office:	4.0 / 1,000 sf
General Retail:	2.0 / 1,000 sf
High-Turnover (Sit-Down) Restaurant:	4.0 / 1,000 sf

The employment factors are based on employee data from the Los Angeles Unified School District, 2012 SANDAG Activity Based Model, ITE trip generation rates, US Department of Energy, and other modeling resources.

[d] The maximum allowable VMT reduction is based on the Project's designated TBZ as determined form *Transportation Demand Management Strategies in LA VMT Calculator* (LADOT, November 2019) and *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

[e] Project design features include:

1. Reduce parking supply - Provide 310 spaces of base LAMC requirement of 403 spaces
2. Parking cash-out - 30% employees eligible
3. Promotions and marketing - 100% employees eligible
4. Include bike parking per LAMC
5. Include secure bike parking and showers
6. Pedestrian network improvements within project and connecting off-site

[f] Based on home-based production trips only (see Appendix C, Report 4).

[g] Based on home-based work attraction trips only (see Appendix C, Report 4).

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, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

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

Section 4D: Threshold T-3

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

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

ACCESS OVERVIEW

As described in Chapter 1, vehicular access to the Project Site would be provided via one driveway on Hudson Avenue, a designated Local Street. In accordance with LADOT guidelines, the driveway would be located on a Local Street so as not to disrupt the operations of Santa Monica Boulevard, the Arterial Street nearest the Project. The Project would maintain the designated roadway widths and ROW requirements as indicated in the Mobility Plan. Pedestrian and bicycle access would be provided via separate entrances along Romaine Street.

PROJECT HAZARDS ANALYSIS

Potential Geometric Design Hazards

The driveway along Hudson Avenue provides adequate sight distance as its design does not locate street trees or other potential impediments in the sidewalk that would affect sight distance and visibility of approaching vehicles, pedestrians, or bicycles. Additionally, the driveway intersects the roadway at right angles to maximize sight distance. No unusual or new obstacles are presented in the design that would be considered hazardous to vehicles, bicycles, or pedestrians.

Based on the analysis in Chapter 3, the Project would generate approximately four vehicles every minute that would utilize the driveway along Hudson Avenue during peak hours. The driveway would have the capacity to individually accommodate all peak hour Project trips and, therefore, no queuing hazards would occur related to operation of the driveway. As further discussed in Section 5B, Project traffic can be accommodated at the driveway and would not substantially affect operating conditions along Hudson Avenue.

Intersections located at either end of the block of Hudson Avenue containing the Project driveway are controlled with stop signs. Traffic signals are provided along Santa Monica Boulevard at Wilcox Avenue. The traffic signal facilitates traffic flow to and from Santa Monica Boulevard and reduces conflicts and confusion between vehicular traffic and pedestrians in the Project vicinity with marked crosswalks, walk signal indicators, and countdown timers.

Consistency with Modal Priority Networks

The Project driveway is not proposed along a street designated as part of the BLN or TEN and, thus, would not preclude or interfere with the implementation of future roadway improvements benefiting transit, pedestrians, or bicycles.

Pedestrian and Bicycle Activity

The Project would result in an increase in both pedestrian and bicycle activity along the three adjacent streets. The Project would improve the adjacent pedestrian facilities in accordance with Mobility Plan standards. Further, the Project driveways would be designed and placed to provide adequate sight distance to limit potential vehicular-pedestrian / bicycle conflicts, and pedestrians and bicyclists would have separate dedicated access points as shown in Figure 1. In addition, access to the Project Site would be consolidated to one driveway on Hudson Avenue, and existing curb cuts along Romaine Avenue would be removed, thus improving pedestrian and bicycle safety along the Project frontage by reducing potential vehicular-pedestrian / bicycle conflict points.

The streets adjacent to the Project Site have not been identified as part of a Safe Route to School, and the Safe Routes to School Program has not identified any infrastructure improvement projects within the vicinity of the Project Site.

In addition, there are currently neither bicycle facilities nor transit facilities provided adjacent to the Project driveway.

The driveway would not pose a safety hazard to pedestrians or bicyclists, nor are they anticipated to result in significant vehicle-pedestrian or vehicle-bicycle conflicts.

Summary

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

CUMULATIVE ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with Related Projects with access points along the same block as the Project to determine if there may be a cumulatively significant impact. There are currently no identified Related Projects proposed with access points along the same block of the Project. Therefore, the Project would not result in cumulative impacts that would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

Section 4E: Freeway Safety Analysis

Recently, LADOT 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 off-ramp facilities as part of a transportation assessment.

ANALYSIS METHODOLOGY

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

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. 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[2].
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.

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

---

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

lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

PROJECT 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 freeway off-ramp facilities.

Chapter 5
Non-CEQA Transportation Analysis

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

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

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

The four non-CEQA transportation analyses 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

The Project would not directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian or bicycle facilities. Although the Project may intensify use of existing pedestrian and bicycle facilities, the Project would provide bicycle amenities and pedestrian connectivity to accommodate increase in pedestrians and bicyclists.

Transit

As detailed in Chapter 2 and illustrated in Figure 7, the Project area is served by bus lines operated by Metro.

Although the Project (and other Related Projects) will cumulatively add transit ridership, the Project Site, the Study Area, and Hollywood are served by a vast amount of transit service. Table

2 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site.

Tables 3A and 3B summarize the total residual capacity of the Metro bus lines during the morning and afternoon peak hours based on the frequency of service of each line and the maximum seated and standing capacity of each bus or train. As shown in Tables 3A and 3B, the Metro bus and DASH transit lines within 0.25 miles walking distance of the Project Site currently have additional capacity for 270 additional riders during the morning peak hour and 236 additional riders during the afternoon peak hour.

INTENSIFICATION OF USE

The Project would result in additional pedestrians, 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 providing new street trees and maintaining accessible sidewalks along the Project frontage. The Project would provide bicycle parking for employees, tenants, and patrons in accordance with LAMC, along with bicycle amenities such as showers and lockers. Given the Project Site's proximity to active commercial uses in Hollywood, it is ideally located to encourage non-automobile trips to and from those destinations. Furthermore, the Project is located within 0.25-mile walking distance from Metro Local and Rapid bus lines along Santa Monica Boulevard that expand the reach 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, the Study Area is served by several established transit routes. The Project is served by multiple bus lines operated by Metro along Santa Monica Boulevard within Study Area. As shown in Tables 3A and 3B, 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 270 additional riders during the morning peak hour and 236 additional riders during the afternoon peak hour. As shown in Table 5, transit usage accounts for the reduction of approximately 27 vehicle trips during the morning peak hour and 28 vehicle trips during the afternoon peak hour. These trips do not account for any transit trips reductions due to the removal of existing uses. Based on the average vehicle occupancy factor of 1.55 for all trip purposes in Los Angeles County as identified in *SCAG Regional Travel Demand Model and 2012 Model Validation* (SCAG, March 2016), the total Project vehicle-transit trips correspond to 42 person-transit trips during the morning peak hour and 43 person-transit trips during the afternoon peak hour. This equates to approximately 16% of the total residual capacity of the transit lines within the Study Area during the morning peak hour and 18% of the total residual capacity of the transit lines within the Study area during the afternoon peak hour, confirming that the adjacent transit capacity can accommodate the intensification of transit usage attributable to the Project.

CONCLUSION

The Project would result in some intensification of pedestrian, bicycle, and transit activity in the vicinity of the Project Site. However, given the Project Site's location near local bus services in Hollywood and its proximity to active commercial centers, it is ideally located to encourage non-automobile trips to and from those destinations and reach additional public transit routes. The amount of additional pedestrian, bicycle, and transit activity generated by the Project would not strain the capacity of facilities and operations dedicated to those modes.

Section 5B

Project Access, Safety, and Circulation Assessment

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

OPERATIONAL EVALUATION

Intersection operations 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 five intersections, one signalized and four unsignalized, in the vicinity of the Project Site were selected for detailed transportation analysis and are shown in Figure 2.

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

- Existing with Project Conditions: This analysis condition estimates the potential intersection operating conditions that could be expected if the Project were built under existing conditions.
- Future with Project Conditions (Year 2025): This analysis condition estimates the potential intersection operating conditions that could be expected if the Project were occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2025).

Methodology

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the City. The HCM signalized and all-way stop control unsignalized methodologies calculate the average delay, in seconds, for each vehicle passing through the intersections. The HCM two-way stop-control unsignalized methodology calculates the control delay, in seconds, for individual approaches of an intersection. Table 11 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to congested stop-and-go conditions at LOS F, for signalized and unsignalized intersections. The queue lengths were estimated using Synchro, which reports the 85th percentile queue length, in feet, for each signalized approach lane and the 95th percentile queue length, in feet, for each unsignalized approach lane. The reported queues are calculated using the HCM signalized intersection methodology.

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

Existing with Project Conditions

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

Intersection LOS. Table 12 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing and Existing with Project Conditions. As shown in Table 12, four of the five study intersections would operate at LOS C or better during both the morning and afternoon peak hours under Existing and Existing with Project Conditions. The remaining intersection of Seward Street & Santa Monica Boulevard (Intersection 1), two-way stop-controlled intersection, would operate at LOS F during both the morning and afternoon peak hours under Existing and Existing with Project Conditions. It should be noted that the HCM 6th Edition Two-Way Stop Control Unsignalized methodology calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, typically on the lower volume minor street, and does not account for traffic gaps created by adjacent traffic signals which allow turn movements to proceed from the minor street.

Future with Project Conditions

All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 3 are incorporated into this analysis.

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 3 and shown in Figure 14 were added to the Future without Project Conditions (Year 2025) morning and afternoon peak hour traffic volumes shown in Figure 11. The resulting volumes are illustrated in Figure 16 and represent Future with Project Conditions after development of the Project in Year 2025.

Intersection LOS. Table 13 summarizes the results of the Future without Project (Year 2025) and Future with Project Conditions during the weekday morning and afternoon peak hours for the five study intersections. As shown in Table 13, four of the five study intersections would operate at LOS C or better during both the morning and afternoon peak hours under Future without Project (Year 2025) and Future with Project (Year 2025) Conditions. The remaining intersection of Seward Street & Santa Monica Boulevard (Intersection #1), a two-way stop-controlled intersection, would continue to operate at LOS F during both the morning and afternoon peak hours under Future without Project and Future with Project Conditions. It should be noted that the HCM 6th Edition Two-Way Stop Control Unsignalized methodology calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, typically on the lower volume minor street, and does not account for traffic gaps created by adjacent traffic signals which allow turn movements to proceed from the minor street.

It should be noted that, based on LOS results shown in Tables 12 and 13 and the minor street traffic volumes illustrated in Figure 16 under Future with Project Conditions, the intersection of Seward Street & Santa Monica Boulevard (Intersection #1) likely would not meet the minimum vehicular threshold requirements set forth in *Manual of Policies and Procedures* (LADOT, December 2008) and *California Manual on Uniform Traffic Control Devices* (Caltrans, 2014) to warrant the installation of a traffic signal. Therefore, the installation of a traffic signal at the intersection of Seward Avenue & Santa Monica Boulevard is not recommended.

QUEUING ANALYSIS

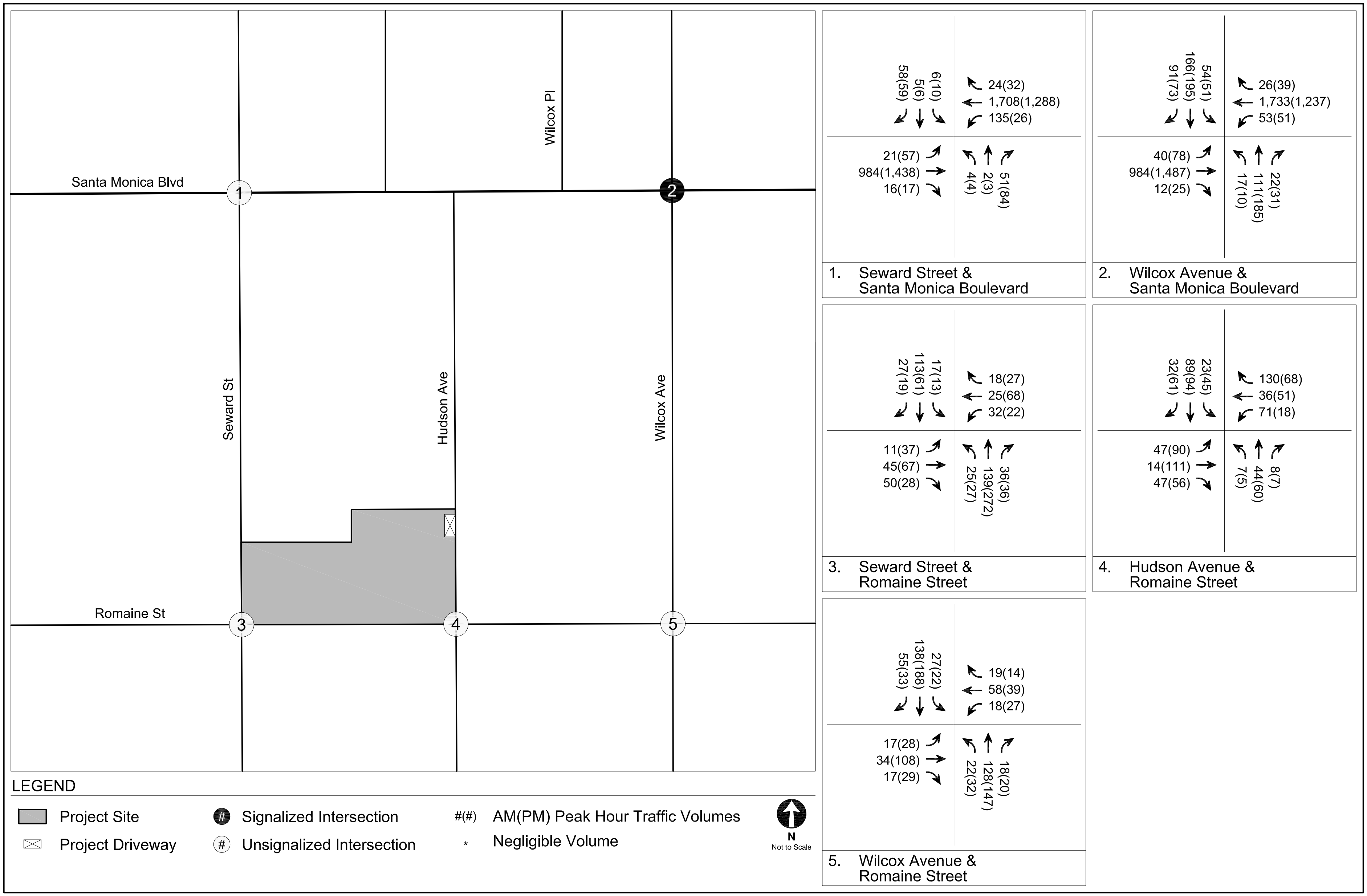
The study intersections were also analyzed to determine whether the lengths of intersection turning lanes could accommodate vehicle queue lengths.

The queue lengths were estimated using Synchro software, which reports the 85th percentile queue length, in feet, for each signalized approach lane and the 95th percentile queue length, in feet, for each unsignalized approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

Detailed queuing analysis worksheets are provided in Appendix E.

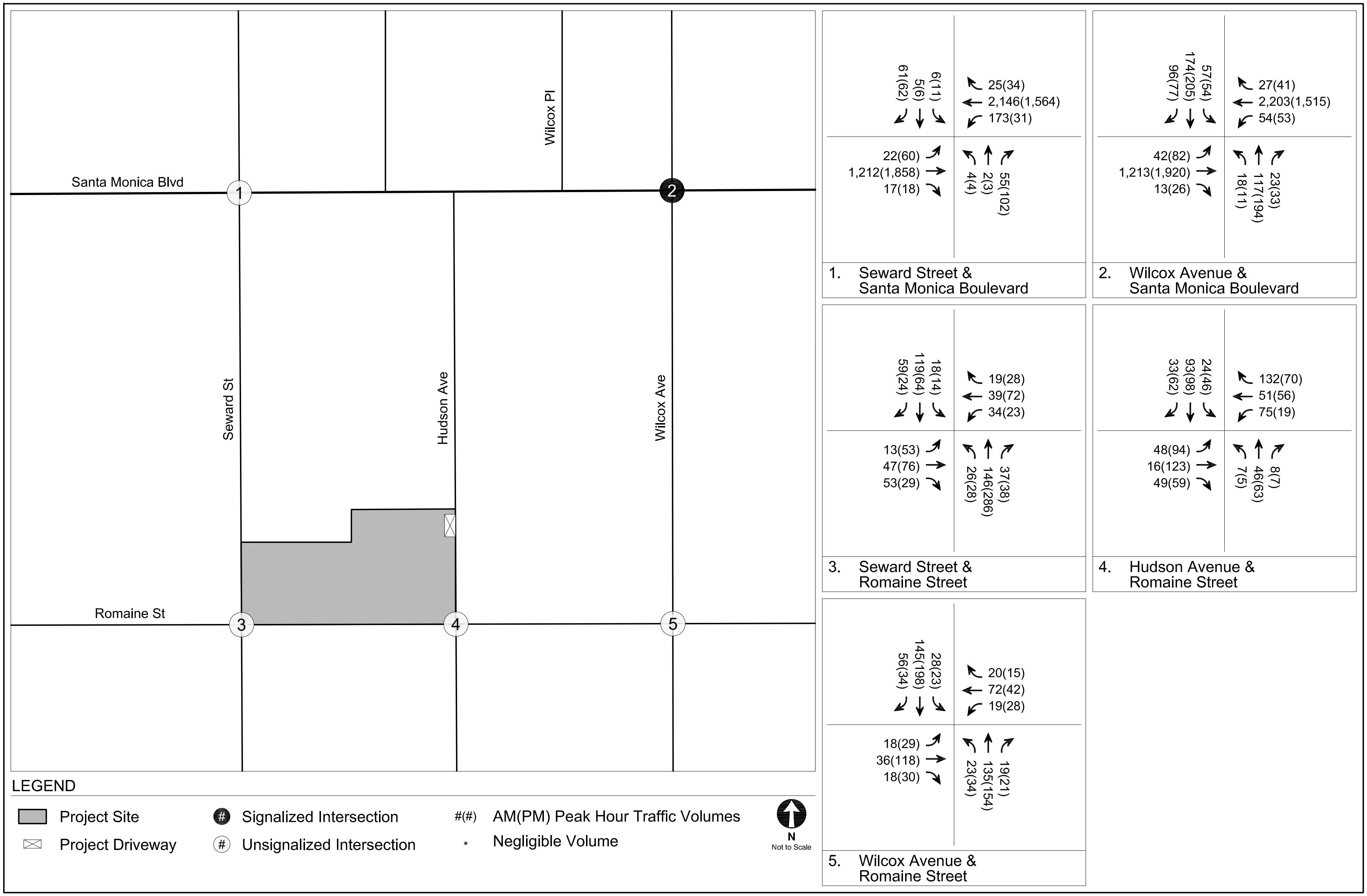
PASSENGER LOADING EVALUATION

The Project proposes all passenger loading to be on-site within the parking garage, and would not conflict with the adjacent vehicular, pedestrian, or bicycle traffic flow within the public ROW. Additionally, unmetered on-street parking is provided along the eastern and southern boundaries of Project Site (with one-hour daytime restrictions on Hudson Avenue and two-hour nighttime restrictions on Romaine Street) providing approximately eight more spaces that could serve passenger loading purposes when not in use by parked vehicles.



EXISTING WITH PROJECT CONDITIONS (YEAR 2020)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
15



FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 16

TABLE 11
INTERSECTION LEVEL OF SERVICE

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

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

TABLE 12
EXISTING CONDITIONS (YEAR 2020)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing		Existing with Project	
			Delay	LOS	Delay	LOS
1. [a]	Seward Street & Santa Monica Boulevard	AM PM	-- --	F F	-- --	F F
2. [b]	Wilcox Avenue & Santa Monica Boulevard	AM PM	19.4 17.8	B B	18.7 17.7	B B
3. [c]	Seward Street & Romaine Street	AM PM	8.7 10.3	A B	8.9 10.7	A B
3. [a]	Hudson Avenue & Romaine Street	AM PM	12.4 14.7	B B	14.8 17.7	B C
4. [c]	Wilcox Avenue & Romaine Street	AM PM	8.6 9.7	A A	9.1 10.1	A B

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 10

[a] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.

[b] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

[c] Intersection analysis based on HCM 6th Edition All-Way Stop Control Unsignalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through an intersection.

TABLE 13
FUTURE CONDITIONS (YEAR 2025)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project	
			Delay	LOS	Delay	LOS
1. [a]	Seward Street & Santa Monica Boulevard	AM PM	-- --	F F	-- --	F F
2. [b]	Wilcox Avenue & Santa Monica Boulevard	AM PM	30.2 22.9	C C	29.2 23.1	C C
3. [c]	Seward Street & Romaine Street	AM PM	9.0 10.8	A B	9.3 11.5	A B
3. [a]	Hudson Avenue & Romaine Street	AM PM	12.9 15.6	B C	15.7 19.3	C C
4. [c]	Wilcox Avenue & Romaine Street	AM PM	8.8 10.0	A A	9.3 10.6	A B

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10
[a] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.
[b] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.
[c] Intersection analysis based on HCM 6th Edition All-Way Stop Control Unsignalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through an 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's driveway placement on a Local Street does not qualify as cut-through traffic as it is City policy to locate new project driveways on lower-volume side streets and not on arterials. Further, the Project is not projected to lead to trip diversion along other residential Local Streets, 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. Thus, the Project is not required to conduct a Local Residential Street Cut-Through Analysis.

Section 5D
Construction Impact Analysis

This section summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities associated with the Project and was performed in accordance with Section 3.4 of the TAG.

CONSTRUCTION EVALUATION CRITERIA

Section 3.4.3 of the TAG identifies the following 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:

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

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

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of approximately 24 months, with an anticipated completion in Year 2025. The construction period would include sub-phases of site demolition, grading/excavation, mat foundation, building construction, building finishes, and paving/landscape. Peak truck activity occurs during the mat foundation phase and peak worker activity occurs during the building construction phase. These two sub-phases of construction were studied in greater detail.

MAT FOUNDATION SUBPHASE

The peak period of truck activity during construction of the Project would occur during the mat foundation phase.

Haul trucks would travel on approved truck routes designated within the City. Given the Project Site's proximity to US 101, haul truck traffic would take the most direct route to the appropriate freeway ramps. The haul route will be reviewed and approved by the City.

Based on estimates from the Applicant, this period would require up to 180 delivery trucks per day. Thus, up to 360 daily truck trips (180 inbound, 180 outbound) are forecast to occur during the demolition period.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity (Transportation Research Board, 1980) defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 12-25 of the HCM suggest a PCE of 2.0 for trucks on level terrain. Assuming a PCE factor of 2.0, the 360 truck trips would be equivalent to 720 daily PCE trips.

In addition, a maximum of 100 construction workers would work at the Project Site during this subphase. Assuming minimal carpooling amongst those workers, an average vehicle occupancy (AVO) of 1.135 persons per vehicle was applied, as provided in *CEQA Air Quality Handbook* (South Coast Air Quality Management District, 1993). Therefore, 100 workers would result in a total of 88 vehicles, or 176 vehicle trips (88 inbound, 88 outbound) at the Project Site on a daily basis.

With implementation of the Construction Management Plan, it is anticipated that almost all truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours. 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 mat foundation phase of construction.

BUILDING CONSTRUCTION SUBPHASE

The traffic impacts associated with construction workers depends on the number of construction workers employed during various subphases 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 or after the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 4:00 PM or after 6:00 PM). Therefore, most, if not all, construction worker trips would occur outside of the typical weekday commuter peak periods.

The estimated number of construction workers each day depends on the phase of construction. According to construction projections prepared for the Project, the building construction subphase would employ the most construction workers, with a maximum of approximately 350 workers per day for all components of the building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 350 workers per day used for the purposes of this analysis represents a very conservative estimate.

Assuming an AVO of 1.135 persons per vehicle, 350 workers would result in a total of 308 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 616 (308 inbound and 308 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described above. As such, the building construction subphase is not expected to cause a significant traffic impact at any of the study intersections.

During building construction, adequate parking for construction workers would be secured in local public parking facilities or, if needed, a remote site with shuttle service provided. Restrictions against workers parking in the public ROW in the vicinity of (or adjacent to) the Project Site would be identified as part of the Construction Management Plan. All construction materials storage and truck staging would be contained on-site.

POTENTIAL CONSTRAINTS ON ACCESS, TRANSIT, AND PARKING

Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so 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. Implementation of the Construction Management Plan described below would further reduce those constraints.

Access

Construction activities are expected to be primarily contained within the Project Site boundaries. However, it is expected that construction fences may encroach into the public ROW (e.g., sidewalks and roadways) adjacent to the Project Site, where the parking lane and sidewalk on Seward Street, Romaine Street, and Hudson Avenue may be used throughout the construction period of the Project. Temporary traffic controls would be provided to direct traffic around any closures and to maintain emergency access, as required in the Construction Management Plan, and two-way traffic will be maintained on all roads throughout construction.

The use of the public ROW along Seward Street, Romaine Street, and Hudson Avenue may require temporary re-routing of pedestrian and bicycle traffic as the sidewalks fronting the Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

Transit

The construction activities of the Project will not require a temporary transit stop relocation as there are no transit stops adjacent to the Project Site.

Parking

Parking is allowed on Romaine Street and Hudson Avenue, so construction could result in a temporary loss of on-street parking spaces. On Romaine Street, this could result in the temporary loss of up to four unmetered on-street parking spaces adjacent to the Project Site on the north side of the street. On Hudson Avenue, this could result in the temporary loss of up to four unmetered on-street parking spaces adjacent to the Project Site on the west side of the street. Coordination with LADOT would be included in the Construction Management Plan as a result of the potential temporary loss of up to eight unmetered on-street parking spaces.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval, 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, bilingual notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation
- Prohibition of construction worker or equipment parking on adjacent streets
- Temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to Seward Street, Romaine Street, and Hudson Avenue to ensure traffic safety on public rights of way
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag persons)
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding Arterial Streets
- Containment of construction activity within the Project Site boundaries, to the extent feasible
- Coordination with LADOT Parking Meter Division to address loss of metered parking spaces
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate, including along all identified Los Angeles Unified School District (LAUSD) pedestrian routes to nearby schools
- Scheduling of construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours, so as to not impede school drop-off and pick-up activities and students using LAUSD's identified pedestrian routes to nearby schools
- Prohibition of haul truck staging on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route
- Spacing of trucks so as to discourage a convoy effect
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind
- Maintenance of a log, available on the job site at all times, documenting the dates of hauling and the number of trips (i.e., trucks) per day
- 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 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

All Project parking would be provided on-site. The Project would provide a total of 310 automobile spaces within four subterranean levels and four above grade parking levels. The Project would also provide 21 short-term and 34 long-term bicycle parking spaces.

VEHICLE PARKING CODE REQUIREMENTS

The parking requirements for the Project were calculated by applying the appropriate parking rates for the Los Angeles – Hollywood State Enterprise Zone (SEZ) exception for commercial uses per LAMC Section 12.21A4(x)(3):

- Commercial (Office, Restaurant, and Retail)
    - 2.0 spaces per 1,000 sf

As summarized in Table 14, using the SEZ parking rates, the Project would require a total of 301 spaces for the 150,600 sf of Office, Restaurant, and Retail use. Thus, the Project's proposed parking supply of 310 spaces would meet LAMC requirements.

BICYCLE PARKING CODE REQUIREMENTS

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. The updated Code bicycle parking requirement of the Project is based on the following rates per LAMC Table 22.112.100-A:

- Office
    - Short-Term 1.0 space per 8,000 sf
    - Long-Term 1.0 space per 8,000 sf

- Restaurant/Retail
    - Short-Term 1.0 space per 5,000 sf
    - Long-Term 1.0 space per 5,000 sf

Per the updated LAMC, the Project’s proposed 150,600 sf of Office, Restaurant, and Retail uses would require a total of 21 short-term and 34 long-term bicycle parking spaces as summarized in Table 15. Therefore, the Project’s proposed 21 short-term and 34 long-term bicycle parking supply would meet the LAMC requirements.

TABLE 14
VEHICLE PARKING CODE REQUIREMENTS

Land Use	Size	Parking Rate [a]	Total Spaces
Office	136,200 sf	2.00 sp / 1,000 sf	272
Retail	2,200 sf	2.00 sp / 1,000 sf	5
Restaurant	12,200 sf	2.00 sp / 1,000 sf	24
		Total Code Parking Requirement	**301**

Notes:

[a] Parking rates for Los Angeles - Hollywood State Enterprise Zone (SEZ) exception for commercial uses per LAMC Section 12.21.A4(x)(3).

TABLE 15
BICYCLE PARKING CODE REQUIREMENTS

Land Use	Size	Bicycle Short-Term Parking Rate [a]	Total Short-Term Bicycle Spaces	Bicycle Long-Term Parking Rate [a]	Total Long-Term Bicycle Spaces
Office	136,200 sf	1.00 sp / 10,000 sf	14	1.00 sp / 5,000 sf	27
Restaurant + Retail	14,400 sf	1.00 sp / 2,000 sf	7	1.00 sp / 2,000 sf	7
Total Bicycle Parking Required			**21**		**34**

Notes:

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

Chapter 6

Summary and Conclusions

This study was undertaken to analyze the potential transportation impacts of the mixed-use development Project at 1000 and 1006 Seward Street, 6565 Romaine Street, and 1003, 1007, and 1013 Hudson Avenue on the local street system. The following summarizes the results of this analysis:

- The Project consists of a 10-story mixed-use development of new office, restaurant, and retail uses totaling 150,600 sf, The Project would develop 136,200 sf of office uses, 12,200 sf of restaurant uses (of which 6,100 square feet may be used for an entertainment use), and 2,200 sf of retail uses.
- The Project is anticipated to be complete in Year 2025 and is estimated to generate 195 net new morning peak hour trips and 193 net new 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 would implement TDM strategies as part of the Project design features and would not result in a significant VMT impact. No mitigation measures would be required.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project will incorporate pedestrian and bicycle-friendly designs, such as a bicycle parking, adequate sidewalks, and open space.
- 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 will 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.

2012 Developer Fee Justification Study, Los Angeles Unified School District, 2012.
California Manual on Uniform Traffic Control Devices, California Department of Transportation, 2014.

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

City of Los Angeles VMT Calculator Documentation, Los Angeles Department of Transportation and Los Angeles Department of City Planning, November 2019.

City of Los Angeles VMT Calculator User Guide, Los Angeles Department of Transportation and Los Angeles Department of City Planning, November 2019.

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

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

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

Hollywood Community Plan, Los Angeles Department of City Planning, 1988.

Hollywood Community Plan Update Draft Environmental Impact Report, Terry A. Hayes Associates, Inc., November 2018.

Interim Guidance for Freeway Safety Analysis, LADOT, May 1, 2020.

Los Angeles Municipal Code, City of Los Angeles.

Manual of Policies and Procedures, Los Angeles Department of Transportation, December 2008.

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.

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

References, cont.

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

State of California Senate Bill 743, Steinberg, 2013.

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

Transportation Assessment Guidelines, Los Angeles Department of Transportation, July 2019.

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

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

Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017.

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

Appendix A

Memorandum of Understanding

LADOT

Transportation Assessment Memorandum of Understanding (MOU)

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

I. PROJECT INFORMATION

Project Name: 1000 Seward

Project Address: 6565 Romaine Street; 1003, 1007, and 1013 Hudson Avenue, Los Angeles, California, 90038

Project Description: The Project proposes the construction of a mixed-use development comprised of 136,200 square feet (sf) of office use, 12,200 sf of restaurant use, and 2,200 sf of retail use.

LADOT Project Case Number: CEN 20-49749 Project Site Plan attached? *(Required)* ☒ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 20 % S 30 % E 35 % W 15 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ☒ Yes ☐ No

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

Trip Generation Adjustment *(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	☒	☐

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

	IN	OUT	TOTAL
AM Trips	147	48	195
PM Trips	58	135	193

Daily Trips 1,718
(From VMT Calculator)

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2024 Ambient Growth Rate: 1 % Per Yr.

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

Map of Study Intersections/Segments attached? ☒ Yes ☐ No

STUDY INTERSECTIONS *(May be subject to LADOT revision after access, safety and circulation analysis)*

1 Seward Street & Santa Monica Boulevard
2 Wilcox Avenue & Santa Monica Boulevard
3 Seward Street & Romaine Street
4 Hudson Avenue & Romaine Street
5 Wilcox Avenue & Romaine Street
6

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

IV. ACCESS ASSESSMENT

Is the project on a lot that is 0.5-acre or more in total gross area? ☒ Yes ☐ No

Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☒ No

Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☒ No

V. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Gibson Transportation Consulting, Inc.	39 South, LLC (Matthew Cooper)
Address:	555 W. 5th St., Suite 3375, Los Angeles, CA 90013	1415 N. Cahuenga Blvd, Hollywood, CA 90028
Phone Number:	(213) 683-0088	(323) 822-4444
E-Mail:	ewong@gibsontrans.com	mcooper@postgroup.com

Approved by:	x	4/20/2020	x	4/30/2020
	Consultant's Representative	Date	LADOT Representative	*Date

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

Appendix B

Traffic Volume Data

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

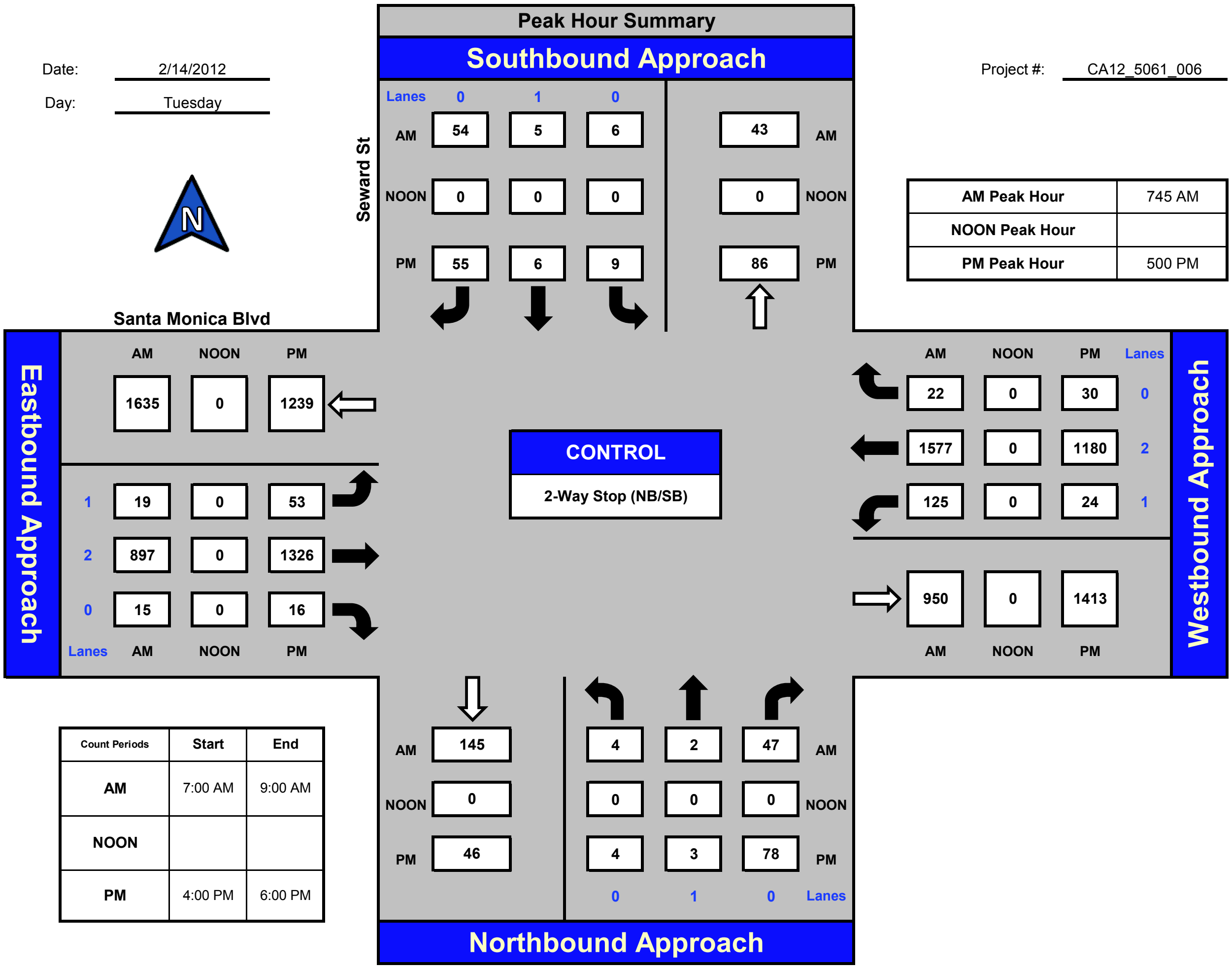
Seward St and Santa Monica Blvd , City of Los Angeles

Date: 2/14/2012

Day: Tuesday

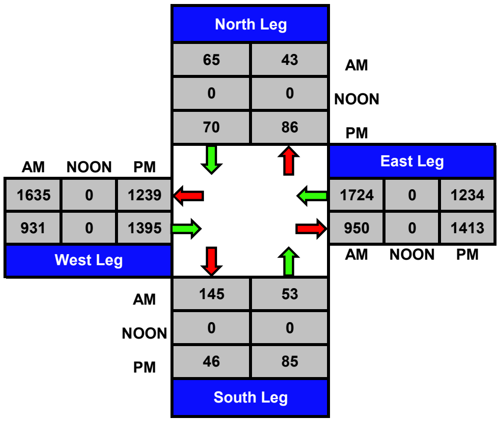
Project #: CA12_5061_006

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	500 PM

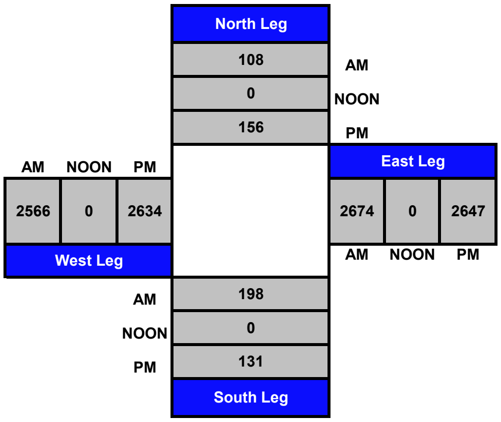


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

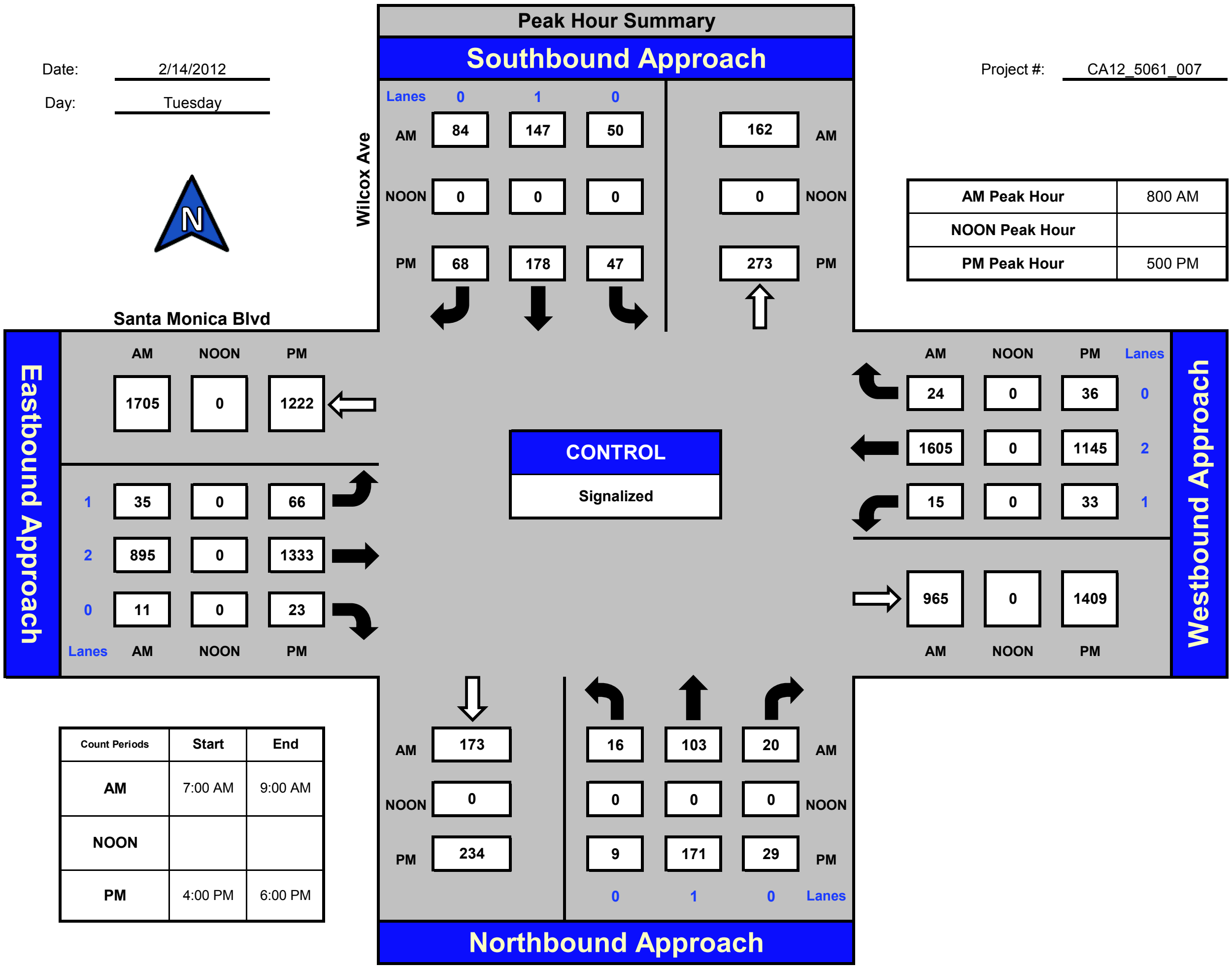
Wilcox Ave and Santa Monica Blvd , City of Los Angeles

Date: 2/14/2012

Day: Tuesday

Project #: CA12_5061_007

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Southbound Approach

	↲	↓	↳	⇧
Lanes	0	1	0	
AM	84	147	50	162
NOON	0	0	0	0
PM	68	178	47	273

Eastbound Approach

Lanes		AM	NOON	PM
	⇦	1705	0	1222
1	↱	35	0	66
2	→	895	0	1333
0	↴	11	0	23

Westbound Approach

	AM	NOON	PM	Lanes
↰	24	0	36	0
←	1605	0	1145	2
↙	15	0	33	1
⇨	965	0	1409	

Northbound Approach

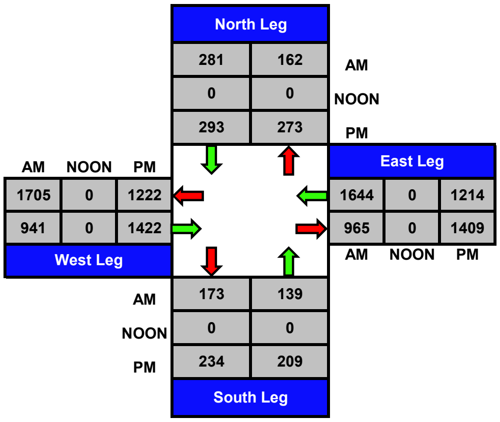
	⇩	↰	↑	↱
AM	173	16	103	20
NOON	0	0	0	0
PM	234	9	171	29
Lanes		0	1	0

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



North Leg

AM	281	162
NOON	0	0
PM	293	273

West Leg

AM	NOON	PM
1705	0	1222
941	0	1422

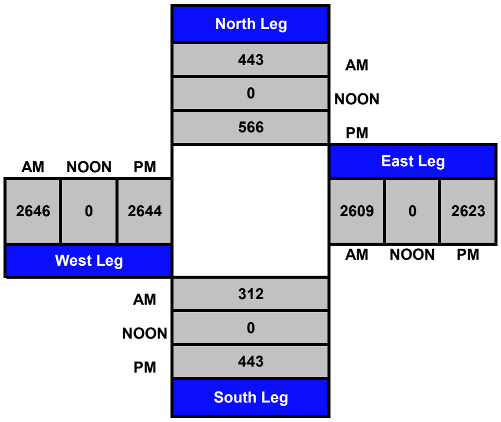
East Leg

AM	NOON	PM
1644	0	1214
965	0	1409

South Leg

AM	173	139
NOON	0	0
PM	234	209

Total Volume Per Leg



	North Leg	West Leg	East Leg	South Leg
AM	443	2646	2609	312
NOON	0	0	0	0
PM	566	2644	2623	443

TRAFFIC COUNT SUMMARY

City of Los Angeles
Department of Transportation
(Rev Apr 92)

STREET:
North/South LAS PALMAS AV

East/West ROMAINE ST

Day: THURSDAY Date: APRIL 23, 1998 Weather: CLOUDY

Hours: 7-10 AI AM 2-5 PM

School Day: YES District: HOLLYWOOD

	N/B	S/B	E/B	W/B
DUAL-WHEELED	13	42	54	26
BIKES	0	0	0	0
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	70	7.45	94	7.45	40	7.30	30	7.30
PM PK 15 MIN	37	3.00	55	3.00	43	3.15	34	3.00
AM PK HOUR	156	7.30	218	7.30	118	7.15	94	7.00
PM PK HOUR	115	3.00	188	2.30	142	3.15	111	2.15

NORTHBOUND Approach					SOUTHBOUND Approach					TOTAL	XING S/L		XING N/L	
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	18	97	20	135	7-8	20	130	30	180	315	7	56	4	8
8-9	9	64	18	91	8-9	25	87	42	154	245	1	1	0	0
9-10	15	63	16	94	9-10	27	60	40	127	221	3	0	7	0
2-3	9	72	9	90	2-3	39	87	21	147	237	3	0	6	0
3-4	9	94	12	115	3-4	23	110	33	166	281	5	61	3	2
4-5	7	92	11	110	4-5	20	97	17	134	244	3	8	1	0
TOTAL	67	482	86	635	TOTAL	154	571	183	908	1543	22	126	21	10

EASTBOUND Approach					WESTBOUND Approach					TOTAL	XING W/L		XING E/L	
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	16	23	72	111	7-8	45	23	26	94	205	21	269	14	34
8-9	7	30	14	51	8-9	8	40	14	62	113	9	14	6	0
9-10	13	17	6	36	9-10	9	46	26	81	117	19	0	4	0
2-3	31	68	22	121	2-3	10	52	35	97	218	20	2	4	0
3-4	42	63	32	137	3-4	19	52	33	104	241	41	309	4	3
4-5	35	49	12	96	4-5	12	39	46	97	193	13	39	10	0
TOTAL	144	250	158	552	TOTAL	103	252	180	535	1087	123	633	42	37

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

BETA FILE 'TM0009.JDF

COUNTER HUGO

DATE 02/10/2005

START TIME 12 AM

LOCATION	WILLOUGHBY AV AT SEWARD ST	DAY OF WEEK	THURSDAY	DATE PREPARED	***************
INTERSECTION	E/W STREET	DOT DISTRICT	HOLLYWOOD	SENSOR LAYOUT	'11'
DESCRIPTION	8E+09	WEATHER	CLEAR	SENSOR SPACING	'1'

	NORTH / WEST BOUND					SOUTH / EAST BOUND					
TIME	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	TOTAL
12 AM	6	2	3	5	16	7	5	5	4	21	37
1 AM	2	7	0	4	13	5	3	3	2	13	26
2 AM	6	2	3	0	11	3	3	1	0	7	18
3 AM	2	0	1	1	4	2	0	1	2	5	9
4 AM	1	1	4	0	6	2	1	1	0	4	10
5 AM	1	2	3	2	8	1	0	2	9	12	20
6 AM	1	6	7	8	22	4	3	6	13	26	48
7 AM	22	47	127	171	367	19	37	40	48	144	511
8 AM	106	79	99	90	374	59	36	48	46	189	563
9 AM	78	41	46	34	199	47	40	44	38	169	368
10 AM	34	40	41	56	171	38	44	48	46	176	347
11 AM	36	40	34	35	145	34	43	42	36	155	300
12 NN	44	32	51	60	187	48	51	64	58	221	408
1 PM	56	64	54	44	218	56	48	68	48	220	438
2 PM	44	44	40	63	191	70	74	78	94	316	507
3 PM	59	56	62	58	235	78	123	120	96	417	652
4 PM	56	64	61	61	242	94	96	127	102	419	661
5 PM	65	60	72	70	267	112	112	122	133	479	746
6 PM	62	60	60	49	231	112	136	119	85	452	683
7 PM	57	52	33	32	174	90	78	65	47	280	454
8 PM	37	21	26	16	100	50	40	38	26	154	254
9 PM	14	22	16	12	64	24	16	19	12	71	135
10 PM	11	22	7	19	59	16	15	11	11	53	112
11 PM	8	6	3	8	25	10	13	5	5	33	58

FIRST 12-HOURS PEAK QUARTER COUNT	171	7 AM	4TH	59	8 AM	1ST
LAST 12-HOURS PEAK QUARTER COUNT	72	5 PM	3RD	136	6 PM	2ND
24 HOUR VEHICLES TOTAL		3329			4036	7365
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	113.60		[+,-]	151.95	247.84

PEAK HOURS VOLUME

	NORTH / WEST BOUND			SOUTH / EAST BOUND			BOTH DIRECTIONS	
	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR	VOLUME VEHICLES
FIRST 12H PEAK	8 AM		**374**	8 AM		**189**	374	**563**
LAST 12H PEAK	5 PM		**267**	5 PM		**479**	479	**746**
FIRST 12H PEAK STD		[+,-]	**10.11**		[+,-]	**8.17**		**18.28**
LAST 12H PEAK STD		[+,-]	**4.66**		[+,-]	**8.67**		**13.33**

PROGRAM BY LADOT

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

BETA FILE	'TM0008.JDF
COUNTER	HUGO
DATE	02/10/2005
START TIME	12 AM
DATE PREPARED	***************
SENSOR LAYOUT	'11'
SENSOR SPACING	'160'

LOCATION	SEWARD ST AT WILLOUGHBY AV	DAY OF WEEK	THURSDAY
INTERSECTION	N/S STREET	DOT DISTRICT	HOLLYWOOD
DESCRIPTION	7E+09	WEATHER	CLEAR

	NORTH / WEST BOUND					*SOUTH / EAST BOUND*					
TIME	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	TOTAL
12 AM	2	4	1	1	8	2	2	1	0	5	13
1 AM	1	0	1	2	4	2	2	1	3	8	12
2 AM	2	2	0	1	5	2	12	0	1	15	20
3 AM	0	1	0	1	2	0	0	2	1	3	5
4 AM	0	0	0	6	6	1	0	0	0	1	7
5 AM	0	1	1	3	5	2	1	2	1	6	11
6 AM	1	6	4	4	15	4	4	3	7	18	33
7 AM	6	8	12	18	44	14	9	22	36	81	125
8 AM	10	8	4	12	34	18	16	11	12	57	91
9 AM	10	8	10	22	50	10	8	20	12	50	100
10 AM	22	10	12	8	52	12	14	11	20	57	109
11 AM	13	10	14	12	49	14	10	14	12	50	99
12 NN	15	7	16	20	58	14	8	13	14	49	107
1 PM	14	20	12	22	68	21	17	15	11	64	132
2 PM	13	12	14	10	49	24	14	15	13	66	115
3 PM	18	13	19	8	58	15	43	38	15	111	169
4 PM	11	22	19	12	64	20	14	9	10	53	117
5 PM	19	10	18	19	66	24	16	17	17	74	140
6 PM	18	15	10	10	53	13	20	8	14	55	108
7 PM	6	12	14	8	40	25	20	21	5	71	111
8 PM	12	6	8	3	29	7	10	9	4	30	59
9 PM	7	4	4	4	19	3	3	2	4	12	31
10 PM	3	4	4	2	13	3	4	4	5	16	29
11 PM	2	4	2	1	9	3	4	2	3	12	21

FIRST 12-HOURS PEAK QUARTER COUNT	22	9 AM	4TH	36	7 AM	4TH
LAST 12-HOURS PEAK QUARTER COUNT	22	1 PM	4TH	43	3 PM	2ND
24 HOUR VEHICLES TOTAL		800			964	1764
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	22.81		[+,-]	29.57	50.66

PEAK HOURS VOLUME

	NORTH / WEST BOUND			*SOUTH / EAST BOUND*			*BOTH DIRECTIONS*	
	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR		VOLUME VEHICLES	PEAK HOUR	VOLUME VEHICLES
FIRST 12H PEAK	10 AM		**52**	7 AM		**81**	81	**133**
LAST 12H PEAK	1 PM		**68**	3 PM		**111**	111	**179**
FIRST 12H PEAK STD		[+,-]	**52.00**		[+,-]	**10.21**		**62.21**
LAST 12H PEAK STD		[+,-]	**4.12**		[+,-]	**12.87**		**17.00**

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

Counter	A. Delas Alas
Date	05/16/18
Start Time	12 AM

Location	**Romaine St at Hudson Av**	**Day of Week**	WED	**Prepared**	05/17/18
Direction	E/W STREET	**DOT District**	Hollywood	**By**	A. Delas Alas
Serial Number	17860	**Weather**	CLEAR		

Time	NORTHBOUND or WESTBOUND					SOUTHBOUND or EASTBOUND					**TOTAL**
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	
12 AM	4	3	0	0	7	8	6	2	3	19	26
1 AM	0	1	1	1	3	1	3	0	1	5	8
2 AM	0	1	1	1	3	2	1	1	2	6	9
3 AM	1	1	0	0	2	1	0	0	0	1	3
4 AM	1	2	0	1	4	0	2	2	2	6	10
5 AM	1	1	2	6	10	2	3	2	4	11	21
6 AM	3	11	10	15	39	0	6	2	2	10	49
7 AM	15	34	31	66	146	4	22	19	15	60	206
8 AM	45	20	34	46	145	15	17	14	24	70	215
9 AM	33	32	28	24	117	14	8	13	15	50	167
10 AM	21	17	19	13	70	12	16	14	14	56	126
11 AM	11	15	10	21	57	15	9	8	13	45	102
12 NN	16	10	19	21	66	11	11	15	19	56	122
1 PM	21	9	12	12	54	24	12	25	26	87	141
2 PM	12	15	22	11	60	35	34	38	39	146	206
3 PM	16	14	19	13	62	67	72	50	42	231	293
4 PM	19	16	12	16	63	43	31	48	42	164	227
5 PM	27	20	14	22	83	46	51	59	45	201	284
6 PM	18	23	25	34	100	66	54	65	53	238	338
7 PM	19	14	20	19	72	52	23	28	25	128	200
8 PM	13	16	6	4	39	17	16	17	14	64	103
9 PM	8	5	11	10	34	21	9	14	8	52	86
10 PM	11	6	3	5	25	11	5	12	4	32	57
11 PM	5	4	2	2	13	15	6	5	3	29	42

FIRST 12-HOURS PEAK QUARTER COUNT	**66**	7 AM	4TH	**24**	8 AM	4TH
LAST 12-HOURS PEAK QUARTER COUNT	**34**	6 PM	4TH	**72**	3 PM	2ND
24 HOUR VEHICLES TOTAL		1,274			1,767	**3,041**
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	42.08		[+,-]	71.04	98.70

PEAK HOURS VOLUME

	NORTH or WEST BOUND		SOUTH or EAST BOUND		BOTH DIRECTIONS	
	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME
First 12H Peak	7 AM	146	8 AM	70	8 AM	**215**
Last 12H Peak	6 PM	100	6 PM	238	6 PM	**338**
First 12H Peak STD	[+,-]	54.46	[+,-]	24.60	[+,-]	77.81
Last 12H Peak STD	[+,-]	23.64	[+,-]	73.28	[+,-]	93.70

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

Counter	A. Delas Alas
Date	05/16/18
Start Time	12 AM

Location	**Hudson Av at Romaine St**	**Day of Week**	WED	**Prepared**	05/17/18
Direction	N/S STREET	**DOT District**	Hollywood	**By**	A. Delas Alas
Serial Number	17859	**Weather**	CLEAR		

Time	NORTHBOUND or WESTBOUND					SOUTHBOUND or EASTBOUND					**TOTAL**
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	
12 AM	1	2	3	1	7	4	3	6	1	14	21
1 AM	1	4	2	0	7	0	2	5	2	9	16
2 AM	0	1	1	0	2	3	2	1	3	9	11
3 AM	2	0	0	1	3	0	0	0	3	3	6
4 AM	0	0	1	3	4	0	0	0	0	0	4
5 AM	1	3	1	3	8	3	1	0	2	6	14
6 AM	0	1	5	7	13	6	7	3	8	24	37
7 AM	3	7	18	11	39	10	27	19	31	87	126
8 AM	9	8	10	9	36	27	25	29	37	118	154
9 AM	6	7	11	5	29	21	9	18	27	75	104
10 AM	14	13	12	12	51	25	11	14	6	56	107
11 AM	15	5	6	8	34	17	13	13	17	60	94
12 NN	10	5	7	14	36	16	10	17	20	63	99
1 PM	9	5	7	8	29	15	18	36	27	96	125
2 PM	20	12	5	18	55	32	41	23	29	125	180
3 PM	18	15	13	16	62	34	43	24	28	129	191
4 PM	13	15	19	14	61	28	26	25	24	103	164
5 PM	10	9	17	22	58	31	17	24	18	90	148
6 PM	22	18	16	12	68	27	32	23	36	118	186
7 PM	15	12	11	8	46	34	11	16	17	78	124
8 PM	10	6	6	10	32	9	8	7	10	34	66
9 PM	1	9	9	7	26	17	5	5	14	41	67
10 PM	7	6	5	9	27	8	4	8	4	24	51
11 PM	9	1	4	6	20	11	3	5	1	20	40

FIRST 12-HOURS PEAK QUARTER COUNT	**18**	7 AM	3RD	**37**	8 AM	4TH
LAST 12-HOURS PEAK QUARTER COUNT	**22**	5 PM	4TH	**43**	3 PM	2ND
24 HOUR VEHICLES TOTAL		753			1,382	**2,135**
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	20.22		[+,-]	42.44	61.01

PEAK HOURS VOLUME

	NORTH or WEST BOUND		SOUTH or EAST BOUND		BOTH DIRECTIONS	
	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME
First 12H Peak	10 AM	51	8 AM	118	8 AM	**154**
Last 12H Peak	6 PM	68	3 PM	129	3 PM	**191**
First 12H Peak STD		[+,-] 16.46		[+,-] 37.77		[+,-] 52.43
Last 12H Peak STD		[+,-] 16.14		[+,-] 37.96		[+,-] 52.51

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

Counter ARMANDO
Date 04/16/14
Start Time 12 AM

Location ROMAINE ST AT WILCOX AV
Direction E/W STREET
Serial Number RD23075 D

Day of Week WEDNESDAY
DOT District HOLLYWOOD
Weather CLEAR

Prepared 04/22/14
By AMS

	NORTHBOUND or WESTBOUND					SOUTHBOUND or EASTBOUND					
Time	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	**TOTAL**
12 AM	2	3	0	1	6	6	1	0	6	13	19
1 AM	2	0	1	2	5	1	1	2	2	6	11
2 AM	2	1	0	2	5	0	1	2	0	3	8
3 AM	1	0	0	1	2	0	0	1	1	2	4
4 AM	0	1	0	0	1	0	0	0	3	3	4
5 AM	0	0	2	4	6	0	1	2	5	8	14
6 AM	3	0	4	0	7	3	0	3	1	7	14
7 AM	1	0	17	6	24	2	5	4	8	19	43
8 AM	5	12	12	7	36	10	12	19	11	52	88
9 AM	17	7	15	7	46	16	14	11	14	55	101
10 AM	7	13	13	7	40	14	12	15	8	49	89
11 AM	18	12	6	12	48	10	9	5	17	41	89
12 NN	15	15	5	11	46	21	18	13	15	67	113
1 PM	16	17	11	7	51	15	16	14	30	75	126
2 PM	11	13	15	20	59	21	22	27	40	110	169
3 PM	18	12	11	11	52	36	17	18	33	104	156
4 PM	12	6	15	8	41	27	24	24	17	92	133
5 PM	9	13	8	18	48	25	32	23	32	112	160
6 PM	9	17	8	16	50	33	41	18	37	129	179
7 PM	8	11	11	6	36	25	31	16	16	88	124
8 PM	12	12	11	4	39	12	10	15	11	48	87
9 PM	9	9	10	9	37	10	9	19	10	48	85
10 PM	7	4	5	5	21	4	7	1	5	17	38
11 PM	6	4	3	2	15	6	4	1	2	13	28

FIRST 12-HOURS PEAK QUARTER COUNT	**18**	11 AM	1ST	**19**	8 AM	3RD
LAST 12-HOURS PEAK QUARTER COUNT	**20**	2 PM	4TH	**41**	6 PM	2ND
24 HOUR VEHICLES TOTAL		721			1,161	**1,882**
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	18.98		[+,-]	39.71	57.12

PEAK HOURS VOLUME

	NORTH or WEST BOUND		SOUTH or EAST BOUND		BOTH DIRECTIONS	
	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME
First 12H Peak	11 AM	48	9 AM	55	9 AM	**101**
Last 12H Peak	2 PM	59	6 PM	129	6 PM	**179**
First 12H Peak STD	[+,-]	17.82	[+,-]	20.34	[+,-]	37.73
Last 12H Peak STD	[+,-]	12.32	[+,-]	35.98	[+,-]	46.91

ROMAINE.WILCOX.140416-AUTO

24 Hours Traffic Volume

City of Los Angeles

Department of Transportation

Counter ARMANDO
Date 04/16/14
Start Time 12 AM

Location WILCOX AV AT ROMAINE ST
Direction N/S STREET
Serial Number RD23074 D

Day of Week WEDNESDAY
DOT District HOLLYWOOD
Weather CLEAR

Prepared 04/22/14
By AMS

	NORTHBOUND or WESTBOUND					SOUTHBOUND or EASTBOUND					
Time	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	**TOTAL**
12 AM	3	7	1	4	15	12	9	6	7	34	49
1 AM	7	2	2	5	16	2	4	10	9	25	41
2 AM	1	1	1	1	4	8	6	11	4	29	33
3 AM	2	0	6	1	9	2	4	1	2	9	18
4 AM	3	0	2	1	6	2	0	1	1	4	10
5 AM	0	3	7	4	14	2	2	3	4	11	25
6 AM	0	3	7	14	24	5	3	7	8	23	47
7 AM	6	11	11	22	50	9	9	26	32	76	126
8 AM	26	38	17	26	107	36	33	41	43	153	260
9 AM	32	47	41	39	159	45	34	38	47	164	323
10 AM	39	33	29	28	129	47	39	45	33	164	293
11 AM	36	24	32	27	119	37	40	38	50	165	284
12 NN	36	32	25	34	127	32	42	43	42	159	286
1 PM	28	37	31	35	131	42	47	37	44	170	301
2 PM	32	37	43	40	152	32	39	43	42	156	308
3 PM	34	40	52	34	160	48	47	43	48	186	346
4 PM	35	30	56	49	170	38	51	45	40	174	344
5 PM	69	40	35	44	188	62	41	48	62	213	401
6 PM	50	47	31	31	159	46	60	60	40	206	365
7 PM	34	44	38	34	150	54	45	42	32	173	323
8 PM	26	30	18	26	100	45	38	33	29	145	245
9 PM	29	14	19	16	78	33	28	46	31	138	216
10 PM	17	17	16	9	59	29	22	22	37	110	169
11 PM	9	13	8	4	34	25	27	24	23	99	133

FIRST 12-HOURS PEAK QUARTER COUNT	**47**	9 AM	2ND	**50**	11 AM	4TH	
LAST 12-HOURS PEAK QUARTER COUNT	**69**	5 PM	1ST	**62**	5 PM	1ST	
24 HOUR VEHICLES TOTAL		2,160			2,786	**4,946**	
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	61.83		[+,-]	68.69	129.11	

PEAK HOURS VOLUME

	NORTH or WEST BOUND			SOUTH or EAST BOUND			BOTH DIRECTIONS		
	PEAK HOUR		VEHICLE VOLUME	PEAK HOUR		VEHICLE VOLUME	PEAK HOUR		VEHICLE VOLUME
First 12H Peak	9 AM		159	11 AM		165	9 AM		**323**
Last 12H Peak	5 PM		188	5 PM		213	5 PM		**401**
First 12H Peak STD		[+,-]	54.77		[+,-]	66.06		[+,-]	120.06
Last 12H Peak STD		[+,-]	45.86		[+,-]	32.92		[+,-]	77.56

WILCOX.ROMAINE.140416-AUTO

Appendix C

CEQA T-1 Plans, Policies, Programs Consistency Worksheet

Plans, Policies and Programs Consistency Worksheet

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

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

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

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

I. SCREENING CRITERIA FOR POLICY ANALYSIS

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

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

☑ Yes ☐ No

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

☐ Yes ☑ No

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

☑ Yes ☐ No

II. PLAN CONSISTENCY ANALYSIS

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

These questions address potential conflict with:

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

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

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

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

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

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

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

☐ Yes ☐ No ☑N/A

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

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

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

Frontage 1 Existing PROW'/Curb' : Existing 25' Required 30' Proposed 25'
Seward Street

Frontage 2 Existing PROW'/Curb' : Existing 25' Required 30' Proposed 25'
Romaine Street

Frontage 3 Existing PROW'/Curb' : Existing 30' Required 30' Proposed 30'
Hudson Avenue

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

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

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

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

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

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

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

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

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

B.1 Project-Initiated Changes to the PROW Dimensions

These questions address potential conflict with:

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

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

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

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

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

---

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

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 off-site street loading areas.*

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

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

Site Planning Best Practices:

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

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

- locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or

- the total number of new driveways exceeds 1 driveway per every 200 feet[2] along on the Avenue or Boulevard frontage, or
- locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- locating new driveways on a collector or local street within 75 feet from the intersecting street, or
- locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

☐ **Yes** ☑ No

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

Impact Analysis

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

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

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

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

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

☐ **Yes** ☑ No ☐ N/A

---

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

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

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-of-way.*

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

☐ Yes ☑ No

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

☐ Yes ☐ **No** ☑ N/A

C.2 New Cul-de-sacs

These questions address potential conflict with:

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

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

☐ Yes ☑ No

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

☐ Yes ☐ **No** ☑ N/A

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

D. Parking Supply and Transportation Demand Management

These questions address potential conflict with:

> ***Mobility Plan 2035 Policy 3.8*** *– Bicycle Parking, Provide bicyclists with convenient, secure and well maintained bicycle parking facilities.*
>
> ***Mobility Plan 2035 Policy 4.8 –*** *Transportation Demand Management Strategies. Encourage greater utilization of Transportation Demand Management Strategies to reduce dependence on single-occupancy vehicles.*
>
> ***Mobility Plan 2035 Policy 4.13*** *– Parking and Land Use Management: Balance on-street and off-street parking supply with other transportation and land use objectives.*

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

☐ Yes ☑ No

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

☐ Yes ☐ **No** ☑ N/A

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

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

☑ Yes ☐ **No**

---

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

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

☑ Yes ☐ No

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

☑ Yes ☐ **No** ☐ N/A

If the answer to **D.3. or D.5. is NO** the project conflicts with LAMC code requirements of bicycle parking and TDM measures. If the project includes uses that require bicycle parking (Section 12.21 A.16) or TDM (Section 12.26 J), and the project does not comply with those Sections of the LAMC, further analysis is required to ensure that the project supports the intent of the two LAMC sections. To meet the intent of bicycle parking requirements, the analysis should identify how the project commits to providing safe access to those traveling by bicycle and accommodates storing their bicycle in locations that demonstrates priority over vehicle access.

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

E. Consistency with Regional Plans

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

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

☑ Yes ☐ No

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

☐ Yes ☑ No ☐ N/A

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

☑ Yes ☐ No ☐ N/A

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

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

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

References

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

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

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

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

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

ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

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

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

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

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

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

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

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

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

Appendix D

VMT Analysis Worksheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

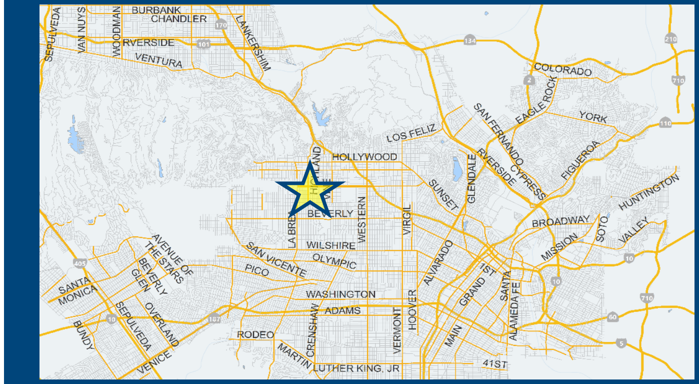
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: J1780 - 1000 Seward

Scenario:

Address: 6565 W ROMAINE ST, 90038



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

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant		ksf
Retail | High-Turnover Sit-Down Restaurant	2.551	ksf
Office | General Office	8.442	ksf

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

Proposed Project Land Use

Land Use Type	Value	Unit
Office | General Office	134.1	ksf
Retail | General Retail	2.2	ksf
Retail | High-Turnover Sit-Down Restaurant	12.2	ksf
Office | General Office	136.2	ksf

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

Project Screening Summary

Existing Land Use	Proposed
223 Daily Vehicle Trips	1,892 Daily Vehicle Trips
1,638 Daily VMT	14,386 Daily VMT

Tier 1 Screening Criteria

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

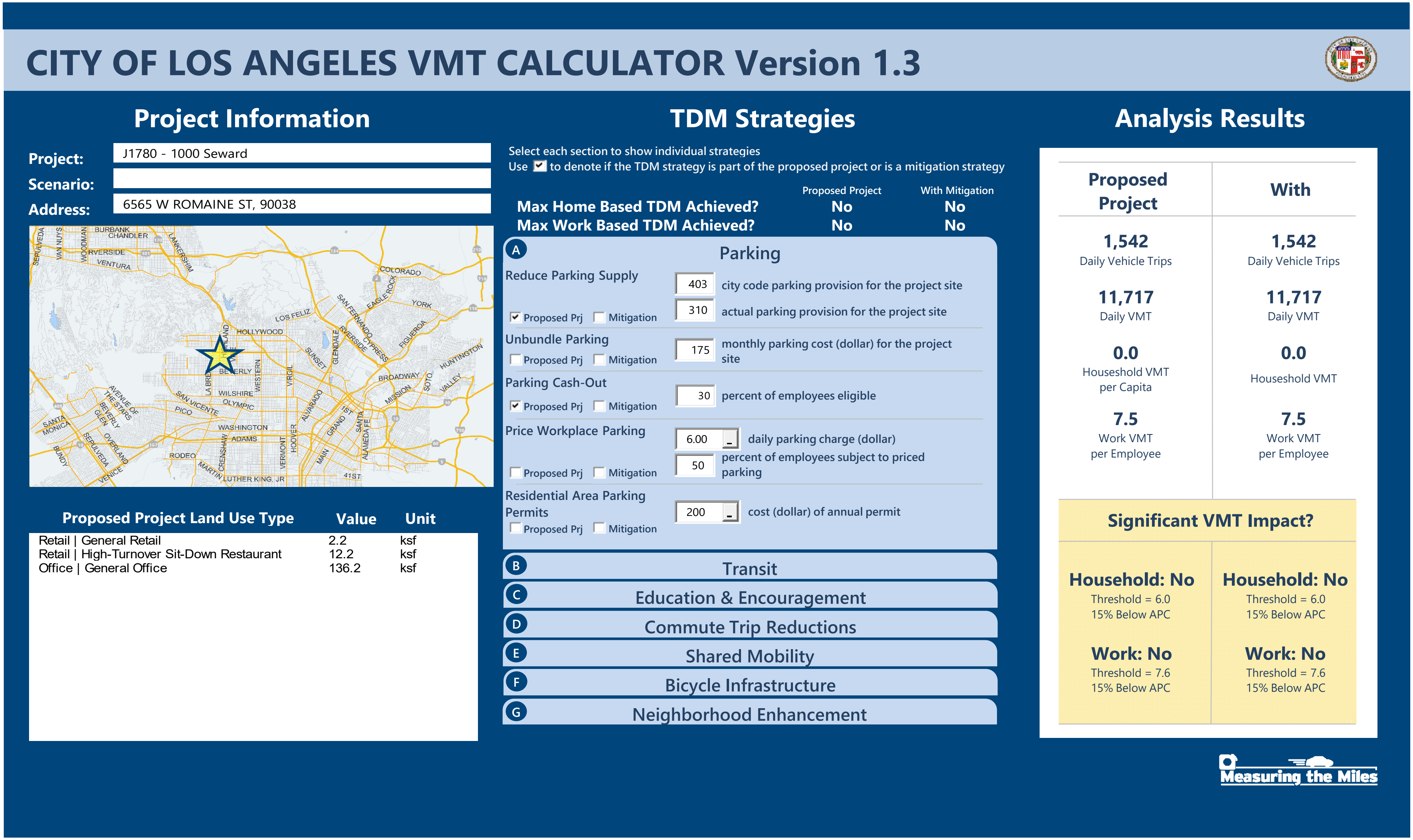
Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	1,669 Net Daily Trips
The net increase in daily VMT ≤ 0	12,748 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	14.400 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

4/29/2021



CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: J1780 - 1000 Seward

Scenario:

Address: 6565 W ROMAINE ST, 90038

Proposed Project Land Use Type	Value	Unit
Retail | General Retail	2.2	ksf
Retail | High-Turnover Sit-Down Restaurant	12.2	ksf
Office | General Office	136.2	ksf

TDM Strategies

Select each section to show individual strategies

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

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

A Parking

Reduce Parking Supply

403 city code parking provision for the project site

310 actual parking provision for the project site

☑ Proposed Prj ☐ Mitigation

Unbundle Parking

175 monthly parking cost (dollar) for the project site

☐ Proposed Prj ☐ Mitigation

Parking Cash-Out

30 percent of employees eligible

☑ Proposed Prj ☐ Mitigation

Price Workplace Parking

6.00 daily parking charge (dollar)

50 percent of employees subject to priced parking

☐ Proposed Prj ☐ Mitigation

Residential Area Parking Permits

200 cost (dollar) of annual permit

☐ Proposed Prj ☐ Mitigation

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With
1,542 Daily Vehicle Trips	**1,542** Daily Vehicle Trips
11,717 Daily VMT	**11,717** Daily VMT
0.0 Household VMT per Capita	**0.0** Household VMT
7.5 Work VMT per Employee	**7.5** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

4/29/2021

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 29, 2021
Project Name: J1780 - 1000 Seward
Project Scenario:
Project Address: 6565 W ROMAINE ST, 90038

Version 1.3

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	*0*	*DU*
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	General Retail	2.200	ksf
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	12.200	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	136.200	ksf
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

Analysis Results

Total Employees: 598
Total Population: 0

Proposed Project		*With Mitigation*	
1,542	**Daily Vehicle Trips**	**1,542**	**Daily Vehicle Trips**
11,717	**Daily VMT**	**11,717**	**Daily VMT**
0	**Household VMT per Capita**	**0**	**Household VMT per Capita**
7.5	**Work VMT per Employee**	**7.5**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

Impact Threshold: 15% Below APC Average
Household = 6.0
Work = 7.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: April 29, 2021
Project Name: J1780 - 1000 Seward
Project Scenario:
Project Address: 6565 W ROMAINE ST, 90038

Version 1.3

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	403	403
		Actual parking provision (spaces)	310	310
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	Employees eligible (%)	30%	30%
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	Employees and residents participating (%)	100%	100%

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: April 29, 2021
Project Name: J1780 - 1000 Seward
Project Scenario:
Project Address: 6565 W ROMAINE ST, 90038

Version 1.3

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*18%*	*18%*	*20%*	*20%*	*18%*	*18%*	*18%*	*18%*	*18%*	*18%*	*18%*	*14%*
MAX. TDM EFFECT	*18%*	*18%*	*20%*	*20%*	*18%*	*18%*	*18%*	*18%*	*18%*	*18%*	*18%*	*18%*

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

where X%=

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

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: April 29, 2021
Project Name: J1780 - 1000 Seward
Project Scenario:
Project Address: 6565 W ROMAINE ST, 90038

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	7.1	0	0
Home Based Other Production	0	0.0%	0	4.7	0	0
Non-Home Based Other Production	425	-5.4%	402	7.5	3,188	3,015
Home-Based Work Attraction	867	-28.0%	624	9.0	7,803	5,616
Home-Based Other Attraction	922	-49.7%	464	6.6	6,085	3,062
Non-Home Based Other Attraction	425	-5.4%	402	6.7	2,848	2,693

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	-17.8%	0	0	-17.8%	0	0
Home Based Other Production	-17.8%	0	0	-17.8%	0	0
Non-Home Based Other Production	-17.8%	330	2,478	-17.8%	330	2,478
Home-Based Work Attraction	-19.7%	501	4,509	-19.7%	501	4,509
Home-Based Other Attraction	-17.8%	381	2,517	-17.8%	381	2,517
Non-Home Based Other Attraction	-17.8%	330	2,213	-17.8%	330	2,213

MXD VMT Methodology Per Capita & Per Employee

Total Population: 0
Total Employees: 598
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**0**	**0**
Total Home Based Work Attraction VMT	**4,509**	**4,509**
Total Home Based VMT Per Capita	**0.0**	**0.0**
Total Work Based VMT Per Employee	**7.5**	**7.5**

Appendix E

HCM Analysis Worksheets

Intersection	
Int Delay, s/veh	12.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰	↱		↰	↱
Traffic Vol, veh/h	21	969	16	135	1703	24	4	2	51	6	5	58
Future Vol, veh/h	21	969	16	135	1703	24	4	2	51	6	5	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1053	17	147	1851	26	4	2	55	7	5	63

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1877	0	0	1070	0	0	2330	3279	535	2732	3274	939
Stage 1	-	-	-	-	-	-	1108	1108	-	2158	2158	-
Stage 2	-	-	-	-	-	-	1222	2171	-	574	1116	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	316	-	-	647	-	-	20	9	490	10	9	265
Stage 1	-	-	-	-	-	-	224	284	-	49	86	-
Stage 2	-	-	-	-	-	-	190	84	-	471	281	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	316	-	-	647	-	-	~ 3	6	490	~ 5	6	265
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 3	6	-	~ 5	6	-
Stage 1	-	-	-	-	-	-	208	263	-	45	66	-
Stage 2	-	-	-	-	-	-	103	65	-	384	260	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.9	208.9	$ 333.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	4	490	316	-	-	647	-	-	5	265
HCM Lane V/C Ratio	1.63	0.113	0.072	-	-	0.227	-	-	2.391	0.238
HCM Control Delay (s)	$ 1871.7	13.3	17.3	-	-	12.2	-	-	$ 1972.3	22.8
HCM Lane LOS	F	B	C	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	1.7	0.4	0.2	-	-	0.9	-	-	2.6	0.9

Notes

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

07/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	38	967	12	16	1733	26	17	111	22	54	159	91
Future Volume (veh/h)	38	967	12	16	1733	26	17	111	22	54	159	91
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	41	1051	13	17	1884	28	18	121	24	59	173	99
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	130	2257	28	331	2250	33	70	385	71	106	258	135
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	235	3595	44	530	3584	53	96	1426	263	219	954	501
Grp Volume(v), veh/h	41	519	545	17	932	980	163	0	0	331	0	0
Grp Sat Flow(s),veh/h/ln	235	1777	1862	530	1777	1861	1785	0	0	1673	0	0
Q Serve(g_s), s	15.0	13.8	13.8	1.6	36.9	37.3	0.0	0.0	0.0	9.5	0.0	0.0
Cycle Q Clear(g_c), s	52.3	13.8	13.8	15.4	36.9	37.3	6.5	0.0	0.0	16.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.03	0.11		0.15	0.18		0.30
Lane Grp Cap(c), veh/h	130	1115	1169	331	1115	1168	526	0	0	499	0	0
V/C Ratio(X)	0.32	0.47	0.47	0.05	0.84	0.84	0.31	0.00	0.00	0.66	0.00	0.00
Avail Cap(c_a), veh/h	130	1115	1169	331	1115	1168	526	0	0	499	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.7	8.8	8.8	12.9	13.1	13.2	26.3	0.0	0.0	29.7	0.0	0.0
Incr Delay (d2), s/veh	6.2	1.4	1.3	0.3	7.4	7.3	1.5	0.0	0.0	6.8	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	1.9	7.5	7.8	0.4	18.9	19.8	4.8	0.0	0.0	10.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	10.2	10.1	13.2	20.5	20.5	27.9	0.0	0.0	36.5	0.0	0.0
LnGrp LOS	D	B	B	B	C	C	C	A	A	D	A	A
Approach Vol, veh/h		1105			1929			163			331	
Approach Delay, s/veh		11.3			20.4			27.9			36.5	
Approach LOS		B			C			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7				
Max Green Setting (Gmax), s		* 57		* 24		* 57		* 24				
Max Q Clear Time (g_c+I1), s		54.3		18.0		39.3		8.5				
Green Ext Time (p_c), s		1.5		1.1		13.1		0.7				

Intersection Summary			
HCM 6th Ctrl Delay			19.4
HCM 6th LOS			B

Notes

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

HCM 6th AWSC
3: Seward St & Romaine St

06/08/2020

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	11	16	50	30	15	18	25	139	29	17	113	27
Future Vol, veh/h	11	16	50	30	15	18	25	139	29	17	113	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	17	54	33	16	20	27	151	32	18	123	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.3	9	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	14%	48%	11%
Vol Thru, %	72%	21%	24%	72%
Vol Right, %	15%	65%	29%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	193	77	63	157
LT Vol	25	11	30	17
Through Vol	139	16	15	113
RT Vol	29	50	18	27
Lane Flow Rate	210	84	68	171
Geometry Grp	1	1	1	1
Degree of Util (X)	0.257	0.105	0.092	0.21
Departure Headway (Hd)	4.415	4.515	4.815	4.44
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	793	743	807
Service Time	2.444	2.548	2.85	2.47
HCM Lane V/C Ratio	0.258	0.106	0.092	0.212
HCM Control Delay	9	8.1	8.3	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.4	0.3	0.8

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	14	47	71	36	42	7	37	8	13	87	20
Future Vol, veh/h	10	14	47	71	36	42	7	37	8	13	87	20
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	-	-	-	-	-	-	-	-	-	-	-	-
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	11	15	51	77	39	46	8	40	9	14	95	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	85	0	0	66	0	0	338	302	41	303	304	62
Stage 1	-	-	-	-	-	-	63	63	-	216	216	-
Stage 2	-	-	-	-	-	-	275	239	-	87	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1512	-	-	1536	-	-	616	611	1030	649	609	1003
Stage 1	-	-	-	-	-	-	948	842	-	786	724	-
Stage 2	-	-	-	-	-	-	731	708	-	921	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1536	-	-	503	574	1030	581	572	1003
Mov Cap-2 Maneuver	-	-	-	-	-	-	503	574	-	581	572	-
Stage 1	-	-	-	-	-	-	940	835	-	780	686	-
Stage 2	-	-	-	-	-	-	584	670	-	862	815	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	3.6	11.6	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1512	-	-	1536	-	-	617
HCM Lane V/C Ratio	0.094	0.007	-	-	0.05	-	-	0.211
HCM Control Delay (s)	11.6	7.4	0	-	7.5	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.8

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	17	24	17	18	14	19	22	128	18	27	138	11
Future Vol, veh/h	17	24	17	18	14	19	22	128	18	27	138	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	26	18	20	15	21	24	139	20	29	150	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8.7	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	29%	35%	15%
Vol Thru, %	76%	41%	27%	78%
Vol Right, %	11%	29%	37%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	58	51	176
LT Vol	22	17	18	27
Through Vol	128	24	14	138
RT Vol	18	17	19	11
Lane Flow Rate	183	63	55	191
Geometry Grp	1	1	1	1
Degree of Util (X)	0.223	0.083	0.072	0.234
Departure Headway (Hd)	4.387	4.725	4.699	4.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	758	762	815
Service Time	2.408	2.754	2.73	2.429
HCM Lane V/C Ratio	0.223	0.083	0.072	0.234
HCM Control Delay	8.7	8.2	8.1	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.3	0.2	0.9

HCM 6th TWSC
1: Seward St & Santa Monica Blvd

06/08/2020

Intersection	
Int Delay, s/veh	12.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑	↱		↰↑	↱
Traffic Vol, veh/h	57	1432	17	26	1274	32	4	3	84	10	6	59
Future Vol, veh/h	57	1432	17	26	1274	32	4	3	84	10	6	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	1557	18	28	1385	35	4	3	91	11	7	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1420	0	0	1575	0	0	2442	3166	788	2363	3158	710
Stage 1	-	-	-	-	-	-	1690	1690	-	1459	1459	-
Stage 2	-	-	-	-	-	-	752	1476	-	904	1699	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	475	-	-	414	-	-	16	10	334	19	10	376
Stage 1	-	-	-	-	-	-	97	148	-	136	192	-
Stage 2	-	-	-	-	-	-	368	189	-	298	146	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	475	-	-	414	-	-	~ 4	8	334	~ 8	8	376
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	8	-	~ 8	8	-
Stage 1	-	-	-	-	-	-	84	129	-	118	179	-
Stage 2	-	-	-	-	-	-	274	176	-	184	127	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	137.8	$ 318.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	5	334	475	-	-	414	-	-	8	376
HCM Lane V/C Ratio	1.522	0.273	0.13	-	-	0.068	-	-	2.174	0.171
HCM Control Delay (s)	$ 1554.3	19.8	13.7	-	-	14.3	-	-	$ 1433.3	16.5
HCM Lane LOS	F	C	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	1.9	1.1	0.4	-	-	0.2	-	-	3.2	0.6

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥			✥	
Traffic Volume (veh/h)	71	1440	25	36	1237	39	10	185	31	51	192	73
Future Volume (veh/h)	71	1440	25	36	1237	39	10	185	31	51	192	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1565	27	39	1345	42	11	201	34	55	209	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	2204	38	182	2169	68	51	428	70	101	314	111
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	390	3575	62	320	3518	110	31	1524	249	196	1118	393
Grp Volume(v), veh/h	77	777	815	39	679	708	246	0	0	343	0	0
Grp Sat Flow(s),veh/h/ln	390	1777	1859	320	1777	1851	1805	0	0	1708	0	0
Q Serve(g_s), s	13.7	26.8	26.9	8.5	21.3	21.4	0.0	0.0	0.0	5.7	0.0	0.0
Cycle Q Clear(g_c), s	35.1	26.8	26.9	35.4	21.3	21.4	10.1	0.0	0.0	15.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.06	0.04		0.14	0.16		0.23
Lane Grp Cap(c), veh/h	228	1096	1147	182	1096	1141	549	0	0	526	0	0
V/C Ratio(X)	0.34	0.71	0.71	0.21	0.62	0.62	0.45	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	228	1096	1147	182	1096	1141	549	0	0	526	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.6	11.8	11.8	23.9	10.7	10.7	26.9	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	4.0	3.9	3.8	2.7	2.6	2.5	2.6	0.0	0.0	6.2	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	2.6	13.8	14.3	1.4	11.1	11.5	6.9	0.0	0.0	10.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	15.6	15.5	26.6	13.3	13.3	29.5	0.0	0.0	34.9	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1669			1426			246			343	
Approach Delay, s/veh		16.0			13.7			29.5			34.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	60.0	30.0	60.0	30.0
Change Period (Y+Rc), s	* 4.5	* 4.7	* 4.5	* 4.7
Max Green Setting (Gmax), s	* 56	* 25	* 56	* 25
Max Q Clear Time (g_c+I1), s	37.1	17.8	37.4	12.1
Green Ext Time (p_c), s	12.2	1.3	10.1	1.1

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

Notes

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

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	37	55	28	15	41	27	27	272	33	13	61	19
Future Vol, veh/h	37	55	28	15	41	27	27	272	33	13	61	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	60	30	16	45	29	29	296	36	14	66	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	8.8	11.5	8.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	31%	18%	14%
Vol Thru, %	82%	46%	49%	66%
Vol Right, %	10%	23%	33%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	332	120	83	93
LT Vol	27	37	15	13
Through Vol	272	55	41	61
RT Vol	33	28	27	19
Lane Flow Rate	361	130	90	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.458	0.183	0.126	0.135
Departure Headway (Hd)	4.565	5.053	5.032	4.816
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	787	706	706	739
Service Time	2.614	3.12	3.104	2.882
HCM Lane V/C Ratio	0.459	0.184	0.127	0.137
HCM Control Delay	11.5	9.3	8.8	8.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.4	0.7	0.4	0.5

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	75	111	56	18	51	33	5	57	7	18	87	27
Future Vol, veh/h	75	111	56	18	51	33	5	57	7	18	87	27
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	-	-	-	-	-	-	-	-	-	-	-	-
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	82	121	61	20	55	36	5	62	8	20	95	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	182	0	0	491	447	152	464	459	73
Stage 1	-	-	-	-	-	-	316	316	-	113	113	-
Stage 2	-	-	-	-	-	-	175	131	-	351	346	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1504	-	-	1393	-	-	488	506	894	508	499	989
Stage 1	-	-	-	-	-	-	695	655	-	892	802	-
Stage 2	-	-	-	-	-	-	827	788	-	666	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1504	-	-	1393	-	-	377	468	894	427	462	989
Mov Cap-2 Maneuver	-	-	-	-	-	-	377	468	-	427	462	-
Stage 1	-	-	-	-	-	-	653	615	-	838	790	-
Stage 2	-	-	-	-	-	-	696	776	-	558	596	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	1.3	13.8	14.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	483	1504	-	-	1393	-	-	512
HCM Lane V/C Ratio	0.155	0.054	-	-	0.014	-	-	0.28
HCM Control Delay (s)	13.8	7.5	0	-	7.6	0	-	14.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0	-	-	1.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	28	81	29	27	22	14	32	147	20	22	188	16
Future Vol, veh/h	28	81	29	27	22	14	32	147	20	22	188	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	88	32	29	24	15	35	160	22	24	204	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	8.8	9.7	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	20%	43%	10%
Vol Thru, %	74%	59%	35%	83%
Vol Right, %	10%	21%	22%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	138	63	226
LT Vol	32	28	27	22
Through Vol	147	81	22	188
RT Vol	20	29	14	16
Lane Flow Rate	216	150	68	246
Geometry Grp	1	1	1	1
Degree of Util (X)	0.285	0.209	0.099	0.322
Departure Headway (Hd)	4.751	5.022	5.181	4.721
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	751	710	685	757
Service Time	2.813	3.092	3.26	2.782
HCM Lane V/C Ratio	0.288	0.211	0.099	0.325
HCM Control Delay	9.7	9.4	8.8	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.8	0.3	1.4

1: Seward St & Santa Monica Blvd

Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑	↱		↰↑	↱
Traffic Vol, veh/h	21	984	16	135	1708	24	4	2	51	6	5	58
Future Vol, veh/h	21	984	16	135	1708	24	4	2	51	6	5	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1070	17	147	1857	26	4	2	55	7	5	63

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1883	0	0	1087	0	0	2350	3302	544	2746	3297	942
Stage 1	-	-	-	-	-	-	1125	1125	-	2164	2164	-
Stage 2	-	-	-	-	-	-	1225	2177	-	582	1133	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	314	-	-	638	-	-	19	8	483	9	8	264
Stage 1	-	-	-	-	-	-	218	278	-	48	85	-
Stage 2	-	-	-	-	-	-	190	84	-	466	276	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	314	-	-	638	-	-	~ 3	6	483	~ 5	6	264
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 3	6	-	~ 5	6	-
Stage 1	-	-	-	-	-	-	202	258	-	44	65	-
Stage 2	-	-	-	-	-	-	102	65	-	379	256	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.9	209	$ 333.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	4	483	314	-	-	638	-	-	5	264
HCM Lane V/C Ratio	1.63	0.115	0.073	-	-	0.23	-	-	2.391	0.239
HCM Control Delay (s)	$ 1871.7	13.4	17.4	-	-	12.3	-	-	$ 1972.3	22.9
HCM Lane LOS	F	B	C	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	1.7	0.4	0.2	-	-	0.9	-	-	2.6	0.9

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

01/20/2021

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	40	984	12	53	1733	26	17	111	22	54	166	91
Future Volume (veh/h)	40	984	12	53	1733	26	17	111	22	54	166	91
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	43	1070	13	58	1884	28	18	121	24	59	180	99
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	136	2297	28	333	2290	34	69	369	68	103	252	127
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	235	3596	44	521	3584	53	95	1426	263	217	972	492
Grp Volume(v), veh/h	43	529	554	58	932	980	163	0	0	338	0	0
Grp Sat Flow(s),veh/h/ln	235	1777	1862	521	1777	1861	1784	0	0	1681	0	0
Q Serve(g_s), s	15.4	13.8	13.8	5.8	35.8	36.2	0.0	0.0	0.0	10.0	0.0	0.0
Cycle Q Clear(g_c), s	51.6	13.8	13.8	19.6	35.8	36.2	6.6	0.0	0.0	16.6	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.03	0.11		0.15	0.17		0.29
Lane Grp Cap(c), veh/h	136	1135	1190	333	1135	1189	506	0	0	482	0	0
V/C Ratio(X)	0.32	0.47	0.47	0.17	0.82	0.82	0.32	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	136	1135	1190	333	1135	1189	506	0	0	482	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.1	8.4	8.4	13.4	12.3	12.4	27.1	0.0	0.0	30.7	0.0	0.0
Incr Delay (d2), s/veh	6.0	1.4	1.3	1.1	6.7	6.6	1.7	0.0	0.0	8.3	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	1.9	7.4	7.7	1.4	18.0	18.9	4.8	0.0	0.0	10.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	9.7	9.7	14.5	19.0	19.0	28.8	0.0	0.0	39.0	0.0	0.0
LnGrp LOS	D	A	A	B	B	B	C	A	A	D	A	A
Approach Vol, veh/h		1126			1970			163			338	
Approach Delay, s/veh		10.8			18.9			28.8			39.0	
Approach LOS		B			B			C			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		62.0		28.0		62.0		28.0
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7
Max Green Setting (Gmax), s		* 58		* 23		* 58		* 23
Max Q Clear Time (g_c+I1), s		53.6		18.6		38.2		8.6
Green Ext Time (p_c), s		2.6		0.9		14.7		0.7

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

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

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	11	45	50	32	25	18	25	139	36	17	113	27
Future Vol, veh/h	11	45	50	32	25	18	25	139	36	17	113	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	49	54	35	27	20	27	151	39	18	123	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.6	9.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	10%	43%	11%
Vol Thru, %	70%	42%	33%	72%
Vol Right, %	18%	47%	24%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	106	75	157
LT Vol	25	11	32	17
Through Vol	139	45	25	113
RT Vol	36	50	18	27
Lane Flow Rate	217	115	82	171
Geometry Grp	1	1	1	1
Degree of Util (X)	0.273	0.149	0.111	0.217
Departure Headway (Hd)	4.52	4.664	4.909	4.573
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	793	766	727	783
Service Time	2.558	2.711	2.959	2.613
HCM Lane V/C Ratio	0.274	0.15	0.113	0.218
HCM Control Delay	9.3	8.5	8.6	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.5	0.4	0.8

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	47	14	47	71	36	130	7	44	8	23	89	32
Future Vol, veh/h	47	14	47	71	36	130	7	44	8	23	89	32
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	-	-	-	-	-	-	-	-	-	-	-	-
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	51	15	51	77	39	141	8	48	9	25	97	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	180	0	0	66	0	0	473	477	41	435	432	110
Stage 1	-	-	-	-	-	-	143	143	-	264	264	-
Stage 2	-	-	-	-	-	-	330	334	-	171	168	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1396	-	-	1536	-	-	501	487	1030	531	516	943
Stage 1	-	-	-	-	-	-	860	779	-	741	690	-
Stage 2	-	-	-	-	-	-	683	643	-	831	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1396	-	-	1536	-	-	378	442	1030	449	468	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	442	-	449	468	-
Stage 1	-	-	-	-	-	-	827	749	-	713	651	-
Stage 2	-	-	-	-	-	-	528	606	-	742	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	2.2	13.9	14.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	469	1396	-	-	1536	-	-	523
HCM Lane V/C Ratio	0.137	0.037	-	-	0.05	-	-	0.299
HCM Control Delay (s)	13.9	7.7	0	-	7.5	0	-	14.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.2	-	-	1.2

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	17	34	17	18	58	19	22	128	18	27	138	55
Future Vol, veh/h	17	34	17	18	58	19	22	128	18	27	138	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	37	18	20	63	21	24	139	20	29	150	60
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.8	9	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	25%	19%	12%
Vol Thru, %	76%	50%	61%	63%
Vol Right, %	11%	25%	20%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	68	95	220
LT Vol	22	17	18	27
Through Vol	128	34	58	138
RT Vol	18	17	19	55
Lane Flow Rate	183	74	103	239
Geometry Grp	1	1	1	1
Degree of Util (X)	0.233	0.101	0.141	0.296
Departure Headway (Hd)	4.601	4.93	4.905	4.457
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	724	728	803
Service Time	2.642	2.982	2.955	2.494
HCM Lane V/C Ratio	0.235	0.102	0.141	0.298
HCM Control Delay	9	8.5	8.8	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.3	0.5	1.2

Intersection	
Int Delay, s/veh	12.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑	↱		↰↑	↱
Traffic Vol, veh/h	57	1438	17	26	1288	32	4	3	84	10	6	59
Future Vol, veh/h	57	1438	17	26	1288	32	4	3	84	10	6	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	1563	18	28	1400	35	4	3	91	11	7	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1435	0	0	1581	0	0	2456	3187	791	2381	3179	718
Stage 1	-	-	-	-	-	-	1696	1696	-	1474	1474	-
Stage 2	-	-	-	-	-	-	760	1491	-	907	1705	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	469	-	-	412	-	-	16	10	332	18	10	371
Stage 1	-	-	-	-	-	-	96	147	-	133	189	-
Stage 2	-	-	-	-	-	-	364	185	-	297	145	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	469	-	-	412	-	-	~ 4	8	332	~ 8	8	371
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	8	-	~ 8	8	-
Stage 1	-	-	-	-	-	-	83	128	-	115	176	-
Stage 2	-	-	-	-	-	-	270	172	-	182	126	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	137.9	$ 318.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	5	332	469	-	-	412	-	-	8	371
HCM Lane V/C Ratio	1.522	0.275	0.132	-	-	0.069	-	-	2.174	0.173
HCM Control Delay (s)	$ 1554.3	19.9	13.8	-	-	14.4	-	-	$ 1433.3	16.7
HCM Lane LOS	F	C	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	1.9	1.1	0.5	-	-	0.2	-	-	3.2	0.6

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

01/20/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	78	1487	25	51	1237	39	10	185	31	51	195	73
Future Volume (veh/h)	78	1487	25	51	1237	39	10	185	31	51	195	73
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	85	1616	27	55	1345	42	11	201	34	55	212	79
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	235	2245	37	178	2208	69	50	412	68	99	304	106
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	390	3577	60	305	3518	110	32	1527	250	196	1127	391
Grp Volume(v), veh/h	85	802	841	55	679	708	246	0	0	346	0	0
Grp Sat Flow(s),veh/h/ln	390	1777	1860	305	1777	1851	1809	0	0	1714	0	0
Q Serve(g_s), s	15.1	27.5	27.7	13.5	20.7	20.8	0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	35.9	27.5	27.7	41.1	20.7	20.8	10.2	0.0	0.0	16.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.06	0.04		0.14	0.16		0.23
Lane Grp Cap(c), veh/h	235	1115	1167	178	1115	1162	530	0	0	509	0	0
V/C Ratio(X)	0.36	0.72	0.72	0.31	0.61	0.61	0.46	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	235	1115	1167	178	1115	1162	530	0	0	509	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.9	11.4	11.4	25.4	10.1	10.1	27.7	0.0	0.0	29.7	0.0	0.0
Incr Delay (d2), s/veh	4.3	4.0	3.9	4.5	2.5	2.4	2.9	0.0	0.0	7.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.9	14.0	14.6	2.1	10.7	11.1	7.1	0.0	0.0	10.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	15.4	15.2	29.9	12.6	12.5	30.6	0.0	0.0	36.9	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	D	A	A
Approach Vol, veh/h		1728			1442			246			346	
Approach Delay, s/veh		15.8			13.2			30.6			36.9	
Approach LOS		B			B			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7				
Max Green Setting (Gmax), s		* 57		* 24		* 57		* 24				
Max Q Clear Time (g_c+I1), s		37.9		18.2		43.1		12.2				
Green Ext Time (p_c), s		12.8		1.1		8.5		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Notes

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

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	37	67	28	22	68	27	27	272	36	13	61	19
Future Vol, veh/h	37	67	28	22	68	27	27	272	36	13	61	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	73	30	24	74	29	29	296	39	14	66	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9.4	12	8.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	28%	19%	14%
Vol Thru, %	81%	51%	58%	66%
Vol Right, %	11%	21%	23%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	335	132	117	93
LT Vol	27	37	22	13
Through Vol	272	67	68	61
RT Vol	36	28	27	19
Lane Flow Rate	364	143	127	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.475	0.205	0.182	0.14
Departure Headway (Hd)	4.697	5.145	5.14	4.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	761	690	691	713
Service Time	2.763	3.234	3.231	3.064
HCM Lane V/C Ratio	0.478	0.207	0.184	0.142
HCM Control Delay	12	9.6	9.4	8.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.6	0.8	0.7	0.5

HCM 6th TWSC
4: Hudson Ave & Romaine St

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	90	111	56	18	51	68	5	60	7	45	94	61
Future Vol, veh/h	90	111	56	18	51	68	5	60	7	45	94	61
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	-	-	-	-	-	-	-	-	-	-	-	-
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	98	121	61	20	55	74	5	65	8	49	102	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	129	0	0	182	0	0	564	517	152	516	510	92
Stage 1	-	-	-	-	-	-	348	348	-	132	132	-
Stage 2	-	-	-	-	-	-	216	169	-	384	378	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1457	-	-	1393	-	-	436	462	894	470	467	965
Stage 1	-	-	-	-	-	-	668	634	-	871	787	-
Stage 2	-	-	-	-	-	-	786	759	-	639	615	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1457	-	-	1393	-	-	309	420	894	383	425	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	420	-	383	425	-
Stage 1	-	-	-	-	-	-	618	586	-	806	774	-
Stage 2	-	-	-	-	-	-	625	747	-	521	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	1	15.2	17.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	431	1457	-	-	1393	-	-	498
HCM Lane V/C Ratio	0.182	0.067	-	-	0.014	-	-	0.437
HCM Control Delay (s)	15.2	7.6	0	-	7.6	0	-	17.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	2.2

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	28	108	29	27	39	14	32	147	20	22	188	33
Future Vol, veh/h	28	108	29	27	39	14	32	147	20	22	188	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	117	32	29	42	15	35	160	22	24	204	36
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	9.2	10.1	10.6
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	17%	34%	9%
Vol Thru, %	74%	65%	49%	77%
Vol Right, %	10%	18%	17%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	165	80	243
LT Vol	32	28	27	22
Through Vol	147	108	39	188
RT Vol	20	29	14	33
Lane Flow Rate	216	179	87	264
Geometry Grp	1	1	1	1
Degree of Util (X)	0.295	0.255	0.131	0.354
Departure Headway (Hd)	4.918	5.127	5.406	4.826
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	692	667	737
Service Time	3.005	3.221	3.406	2.909
HCM Lane V/C Ratio	0.299	0.259	0.13	0.358
HCM Control Delay	10.1	10	9.2	10.6
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.2	1	0.4	1.6

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑	↱		↰↑	↱
Traffic Vol, veh/h	22	1197	17	173	2141	25	4	2	55	6	5	61
Future Vol, veh/h	22	1197	17	173	2141	25	4	2	55	6	5	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1301	18	188	2327	27	4	2	60	7	5	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2354	0	0	1319	0	0	2900	4088	660	3417	4084	1177
Stage 1	-	-	-	-	-	-	1358	1358	-	2717	2717	-
Stage 2	-	-	-	-	-	-	1542	2730	-	700	1367	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	205	-	-	520	-	-	7	~ 2	406	~ 3	~ 2	184
Stage 1	-	-	-	-	-	-	157	215	-	21	44	-
Stage 2	-	-	-	-	-	-	120	43	-	396	213	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	205	-	-	520	-	-	-	~ 1	406	-	~ 1	184
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 1	-	-	~ 1	-
Stage 1	-	-	-	-	-	-	139	190	-	19	28	-
Stage 2	-	-	-	-	-	-	39	27	-	295	188	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	406	205	-	-	520	-	-	-	184
HCM Lane V/C Ratio	-	0.147	0.117	-	-	0.362	-	-	-	0.36
HCM Control Delay (s)	-	15.4	24.9	-	-	15.8	-	-	-	35.2
HCM Lane LOS	-	C	C	-	-	C	-	-	-	E
HCM 95th %tile Q(veh)	-	0.5	0.4	-	-	1.6	-	-	-	1.5

Notes

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

04/29/2021

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥			✥	
Traffic Volume (veh/h)	40	1196	13	17	2203	27	18	117	23	57	167	96
Future Volume (veh/h)	40	1196	13	17	2203	27	18	117	23	57	167	96
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	43	1300	14	18	2395	29	20	127	25	62	182	104
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	82	2421	26	284	2417	29	68	313	57	99	216	114
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	142	3601	39	418	3596	43	102	1389	254	231	957	506
Grp Volume(v), veh/h	43	641	673	18	1181	1243	172	0	0	348	0	0
Grp Sat Flow(s),veh/h/ln	142	1777	1863	418	1777	1863	1744	0	0	1694	0	0
Q Serve(g_s), s	1.3	16.7	16.7	2.1	58.5	59.2	0.0	0.0	0.0	10.6	0.0	0.0
Cycle Q Clear(g_c), s	60.5	16.7	16.7	18.7	58.5	59.2	7.3	0.0	0.0	17.9	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.12		0.15	0.18		0.30
Lane Grp Cap(c), veh/h	82	1194	1253	284	1194	1252	438	0	0	429	0	0
V/C Ratio(X)	0.52	0.54	0.54	0.06	0.99	0.99	0.39	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	82	1194	1253	284	1194	1252	438	0	0	429	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.0	7.6	7.6	12.4	14.4	14.5	29.8	0.0	0.0	33.7	0.0	0.0
Incr Delay (d2), s/veh	21.9	1.7	1.7	0.4	23.5	23.8	2.6	0.0	0.0	15.2	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	2.6	8.4	8.7	0.4	31.8	33.6	5.4	0.0	0.0	12.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	9.3	9.2	12.8	37.9	38.3	32.4	0.0	0.0	49.0	0.0	0.0
LnGrp LOS	E	A	A	B	D	D	C	A	A	D	A	A
Approach Vol, veh/h		1357			2442			172			348	
Approach Delay, s/veh		11.1			37.9			32.4			49.0	
Approach LOS		B			D			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.0		25.0		65.0		25.0				
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7				
Max Green Setting (Gmax), s		* 61		* 20		* 61		* 20				
Max Q Clear Time (g_c+I1), s		62.5		19.9		61.2		9.3				
Green Ext Time (p_c), s		0.0		0.1		0.0		0.6				

Intersection Summary			
HCM 6th Ctrl Delay			30.2
HCM 6th LOS			C

Notes

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

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	13	18	53	32	29	19	26	146	30	18	119	59
Future Vol, veh/h	13	18	53	32	29	19	26	146	30	18	119	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	20	58	35	32	21	28	159	33	20	129	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.7	9.3	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	15%	40%	9%
Vol Thru, %	72%	21%	36%	61%
Vol Right, %	15%	63%	24%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	84	80	196
LT Vol	26	13	32	18
Through Vol	146	18	29	119
RT Vol	30	53	19	59
Lane Flow Rate	220	91	87	213
Geometry Grp	1	1	1	1
Degree of Util (X)	0.277	0.119	0.12	0.263
Departure Headway (Hd)	4.538	4.677	4.963	4.451
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	790	762	719	805
Service Time	2.579	2.728	3.015	2.493
HCM Lane V/C Ratio	0.278	0.119	0.121	0.265
HCM Control Delay	9.3	8.4	8.7	9.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.4	0.4	1.1

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	11	16	49	75	51	44	7	39	8	14	91	21
Future Vol, veh/h	11	16	49	75	51	44	7	39	8	14	91	21
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	-	-	-	-	-	-	-	-	-	-	-	-
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	12	17	53	82	55	48	8	42	9	15	99	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	70	0	0	372	335	44	336	337	79
Stage 1	-	-	-	-	-	-	68	68	-	243	243	-
Stage 2	-	-	-	-	-	-	304	267	-	93	94	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1489	-	-	1531	-	-	585	585	1026	618	584	981
Stage 1	-	-	-	-	-	-	942	838	-	761	705	-
Stage 2	-	-	-	-	-	-	705	688	-	914	817	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1531	-	-	469	547	1026	548	546	981
Mov Cap-2 Maneuver	-	-	-	-	-	-	469	547	-	548	546	-
Stage 1	-	-	-	-	-	-	934	831	-	755	665	-
Stage 2	-	-	-	-	-	-	553	649	-	853	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	3.3	12	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	574	1489	-	-	1531	-	-	590
HCM Lane V/C Ratio	0.102	0.008	-	-	0.053	-	-	0.232
HCM Control Delay (s)	12	7.4	0	-	7.5	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.9

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	18	26	18	19	28	20	23	135	19	28	145	12
Future Vol, veh/h	18	26	18	19	28	20	23	135	19	28	145	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	28	20	21	30	22	25	147	21	30	158	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.3	8.9	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	29%	28%	15%
Vol Thru, %	76%	42%	42%	78%
Vol Right, %	11%	29%	30%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	177	62	67	185
LT Vol	23	18	19	28
Through Vol	135	26	28	145
RT Vol	19	18	20	12
Lane Flow Rate	192	67	73	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.238	0.09	0.097	0.25
Departure Headway (Hd)	4.458	4.802	4.788	4.478
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	806	745	747	802
Service Time	2.487	2.839	2.825	2.506
HCM Lane V/C Ratio	0.238	0.09	0.098	0.251
HCM Control Delay	8.9	8.3	8.3	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.3	0.3	1

HCM 6th TWSC
1: Seward St & Santa Monica Blvd

04/29/2021

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰	↱		↰	↱
Traffic Vol, veh/h	60	1852	18	31	1550	34	4	3	102	11	6	62
Future Vol, veh/h	60	1852	18	31	1550	34	4	3	102	11	6	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	2013	20	34	1685	37	4	3	111	12	7	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1722	0	0	2033	0	0	3067	3943	1017	2910	3935	861
Stage 1	-	-	-	-	-	-	2153	2153	-	1772	1772	-
Stage 2	-	-	-	-	-	-	914	1790	-	1138	2163	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	363	-	-	275	-	-	5	~ 3	235	~ 7	~ 3	299
Stage 1	-	-	-	-	-	-	49	86	-	86	135	-
Stage 2	-	-	-	-	-	-	294	132	-	214	85	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	363	-	-	275	-	-	-	~ 2	235	-	~ 2	299
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 2	-	-	~ 2	-
Stage 1	-	-	-	-	-	-	40	71	-	71	118	-
Stage 2	-	-	-	-	-	-	189	116	-	89	70	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	235	363	-	-	275	-	-	-	299
HCM Lane V/C Ratio	-	0.472	0.18	-	-	0.123	-	-	-	0.225
HCM Control Delay (s)	-	33.3	17.1	-	-	19.9	-	-	-	20.5
HCM Lane LOS	-	D	C	-	-	C	-	-	-	C
HCM 95th %tile Q(veh)	-	2.3	0.6	-	-	0.4	-	-	-	0.8

Notes

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

04/29/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	75	1873	26	38	1515	41	11	194	33	54	202	77
Future Volume (veh/h)	75	1873	26	38	1515	41	11	194	33	54	202	77
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	82	2036	28	41	1647	45	12	211	36	59	220	84
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	174	2293	31	113	2258	62	51	396	65	99	285	102
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	291	3589	49	202	3534	96	35	1529	253	204	1101	393
Grp Volume(v), veh/h	82	1006	1058	41	826	866	259	0	0	363	0	0
Grp Sat Flow(s),veh/h/ln	291	1777	1861	202	1777	1853	1817	0	0	1697	0	0
Q Serve(g_s), s	24.0	42.4	42.8	14.7	28.2	28.5	0.0	0.0	0.0	6.8	0.0	0.0
Cycle Q Clear(g_c), s	52.5	42.4	42.8	57.5	28.2	28.5	11.0	0.0	0.0	17.9	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.05	0.05		0.14	0.16		0.23
Lane Grp Cap(c), veh/h	174	1135	1189	113	1135	1184	512	0	0	486	0	0
V/C Ratio(X)	0.47	0.89	0.89	0.36	0.73	0.73	0.51	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	174	1135	1189	113	1135	1184	512	0	0	486	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.8	13.5	13.6	39.1	11.0	11.0	28.8	0.0	0.0	31.2	0.0	0.0
Incr Delay (d2), s/veh	8.9	10.3	10.2	8.8	4.1	4.0	3.5	0.0	0.0	10.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.5	21.8	22.9	2.1	14.2	14.8	7.6	0.0	0.0	11.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	23.8	23.8	47.9	15.1	15.0	32.3	0.0	0.0	41.2	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	C	A	A	D	A	A
Approach Vol, veh/h		2146			1733			259			363	
Approach Delay, s/veh		24.3			15.8			32.3			41.2	
Approach LOS		C			B			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		28.0		62.0		28.0				
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7				
Max Green Setting (Gmax), s		* 58		* 23		* 58		* 23				
Max Q Clear Time (g_c+I1), s		54.5		19.9		59.5		13.0				
Green Ext Time (p_c), s		2.8		0.7		0.0		1.0				

Intersection Summary			
HCM 6th Ctrl Delay			22.9
HCM 6th LOS			C

Notes

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

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	53	64	29	16	45	28	28	286	35	14	64	24
Future Vol, veh/h	53	64	29	16	45	28	28	286	35	14	64	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	70	32	17	49	30	30	311	38	15	70	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.1	12.3	8.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	36%	18%	14%
Vol Thru, %	82%	44%	51%	63%
Vol Right, %	10%	20%	31%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	349	146	89	102
LT Vol	28	53	16	14
Through Vol	286	64	45	64
RT Vol	35	29	28	24
Lane Flow Rate	379	159	97	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.493	0.228	0.139	0.152
Departure Headway (Hd)	4.679	5.18	5.17	4.936
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	686	686	718
Service Time	2.743	3.265	3.262	3.021
HCM Lane V/C Ratio	0.495	0.232	0.141	0.155
HCM Control Delay	12.3	9.8	9.1	8.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.8	0.9	0.5	0.5

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	79	123	59	19	56	35	5	60	7	19	91	28
Future Vol, veh/h	79	123	59	19	56	35	5	60	7	19	91	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	86	134	64	21	61	38	5	65	8	21	99	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	198	0	0	525	479	166	497	492	80
Stage 1	-	-	-	-	-	-	338	338	-	122	122	-
Stage 2	-	-	-	-	-	-	187	141	-	375	370	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1494	-	-	1375	-	-	463	486	878	483	478	980
Stage 1	-	-	-	-	-	-	676	641	-	882	795	-
Stage 2	-	-	-	-	-	-	815	780	-	646	620	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1375	-	-	349	447	878	400	440	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	349	447	-	400	440	-
Stage 1	-	-	-	-	-	-	632	599	-	825	782	-
Stage 2	-	-	-	-	-	-	679	768	-	534	580	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	1.3	14.4	15.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	460	1494	-	-	1375	-	-	488
HCM Lane V/C Ratio	0.17	0.057	-	-	0.015	-	-	0.307
HCM Control Delay (s)	14.4	7.6	0	-	7.7	0	-	15.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	1.3

5: Wilcox Ave & Romaine St

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	29	91	30	28	25	15	34	154	21	23	198	17
Future Vol, veh/h	29	91	30	28	25	15	34	154	21	23	198	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	99	33	30	27	16	37	167	23	25	215	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9	10	10.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	19%	41%	10%
Vol Thru, %	74%	61%	37%	83%
Vol Right, %	10%	20%	22%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	209	150	68	238
LT Vol	34	29	28	23
Through Vol	154	91	25	198
RT Vol	21	30	15	17
Lane Flow Rate	227	163	74	259
Geometry Grp	1	1	1	1
Degree of Util (X)	0.305	0.231	0.108	0.345
Departure Headway (Hd)	4.83	5.103	5.271	4.796
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	738	696	672	745
Service Time	2.9	3.185	3.366	2.864
HCM Lane V/C Ratio	0.308	0.234	0.11	0.348
HCM Control Delay	10	9.7	9	10.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.3	0.9	0.4	1.5

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑	↱		↰↑	↱
Traffic Vol, veh/h	22	1212	17	173	2146	25	4	2	55	6	5	61
Future Vol, veh/h	22	1212	17	173	2146	25	4	2	55	6	5	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1317	18	188	2333	27	4	2	60	7	5	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2360	0	0	1335	0	0	2919	4110	668	3431	4106	1180
Stage 1	-	-	-	-	-	-	1374	1374	-	2723	2723	-
Stage 2	-	-	-	-	-	-	1545	2736	-	708	1383	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	204	-	-	513	-	-	7	~ 2	401	~ 3	~ 2	183
Stage 1	-	-	-	-	-	-	153	211	-	21	43	-
Stage 2	-	-	-	-	-	-	120	43	-	392	209	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	204	-	-	513	-	-	-	~ 1	401	-	~ 1	183
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 1	-	-	~ 1	-
Stage 1	-	-	-	-	-	-	135	186	-	19	27	-
Stage 2	-	-	-	-	-	-	39	27	-	291	184	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	401	204	-	-	513	-	-	-	183
HCM Lane V/C Ratio	-	0.149	0.117	-	-	0.367	-	-	-	0.362
HCM Control Delay (s)	-	15.5	25	-	-	16	-	-	-	35.4
HCM Lane LOS	-	C	C	-	-	C	-	-	-	E
HCM 95th %tile Q(veh)	-	0.5	0.4	-	-	1.7	-	-	-	1.5

Notes

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

HCM 6th Signalized Intersection Summary
2: Wilcox Ave & Santa Monica Blvd

04/29/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	42	1213	13	54	2203	27	18	117	23	57	174	96
Future Volume (veh/h)	42	1213	13	54	2203	27	18	117	23	57	174	96
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	46	1318	14	59	2395	29	20	127	25	62	189	104
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	84	2437	26	281	2433	29	67	305	56	97	215	110
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	142	3602	38	411	3596	43	101	1379	252	228	974	498
Grp Volume(v), veh/h	46	650	682	59	1181	1243	172	0	0	355	0	0
Grp Sat Flow(s),veh/h/ln	142	1777	1863	411	1777	1863	1731	0	0	1700	0	0
Q Serve(g_s), s	2.5	16.8	16.8	7.7	57.7	58.4	0.0	0.0	0.0	11.1	0.0	0.0
Cycle Q Clear(g_c), s	60.9	16.8	16.8	24.5	57.7	58.4	7.3	0.0	0.0	18.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.12		0.15	0.17		0.29
Lane Grp Cap(c), veh/h	84	1202	1261	281	1202	1260	427	0	0	423	0	0
V/C Ratio(X)	0.55	0.54	0.54	0.21	0.98	0.99	0.40	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	84	1202	1261	281	1202	1260	427	0	0	423	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.9	7.4	7.4	13.7	14.0	14.1	30.1	0.0	0.0	34.3	0.0	0.0
Incr Delay (d2), s/veh	23.3	1.7	1.7	1.7	22.0	22.3	2.8	0.0	0.0	17.9	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	2.8	8.4	8.7	1.5	30.9	32.6	5.4	0.0	0.0	12.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	9.2	9.1	15.4	36.1	36.4	33.0	0.0	0.0	52.2	0.0	0.0
LnGrp LOS	E	A	A	B	D	D	C	A	A	D	A	A
Approach Vol, veh/h		1378			2483			172			355	
Approach Delay, s/veh		11.1			35.8			33.0			52.2	
Approach LOS		B			D			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	65.4	24.6	65.4	24.6
Change Period (Y+Rc), s	* 4.5	* 4.7	* 4.5	* 4.7
Max Green Setting (Gmax), s	* 61	* 20	* 61	* 20
Max Q Clear Time (g_c+I1), s	62.9	20.4	60.4	9.3
Green Ext Time (p_c), s	0.0	0.0	0.5	0.6

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

Notes

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

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	13	47	53	34	39	19	26	146	37	18	119	59
Future Vol, veh/h	13	47	53	34	39	19	26	146	37	18	119	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	51	58	37	42	21	28	159	40	20	129	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9	9.6	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	12%	37%	9%
Vol Thru, %	70%	42%	42%	61%
Vol Right, %	18%	47%	21%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	209	113	92	196
LT Vol	26	13	34	18
Through Vol	146	47	39	119
RT Vol	37	53	19	59
Lane Flow Rate	227	123	100	213
Geometry Grp	1	1	1	1
Degree of Util (X)	0.293	0.165	0.141	0.272
Departure Headway (Hd)	4.65	4.822	5.058	4.589
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	738	704	778
Service Time	2.705	2.888	3.127	2.644
HCM Lane V/C Ratio	0.296	0.167	0.142	0.274
HCM Control Delay	9.6	8.9	9	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.6	0.5	1.1

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	48	16	49	75	51	132	7	46	8	24	93	33
Future Vol, veh/h	48	16	49	75	51	132	7	46	8	24	93	33
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	-	-	-	-	-	-	-	-	-	-	-	-
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	52	17	53	82	55	143	8	50	9	26	101	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	70	0	0	507	510	44	468	465	127
Stage 1	-	-	-	-	-	-	148	148	-	291	291	-
Stage 2	-	-	-	-	-	-	359	362	-	177	174	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1375	-	-	1531	-	-	476	467	1026	505	495	923
Stage 1	-	-	-	-	-	-	855	775	-	717	672	-
Stage 2	-	-	-	-	-	-	659	625	-	825	755	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1375	-	-	1531	-	-	350	421	1026	422	446	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	350	421	-	422	446	-
Stage 1	-	-	-	-	-	-	821	744	-	688	631	-
Stage 2	-	-	-	-	-	-	499	587	-	733	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	2.2	14.5	15.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	445	1375	-	-	1531	-	-	498
HCM Lane V/C Ratio	0.149	0.038	-	-	0.053	-	-	0.327
HCM Control Delay (s)	14.5	7.7	0	-	7.5	0	-	15.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.2	-	-	1.4

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	18	36	18	19	72	20	23	135	19	28	145	56
Future Vol, veh/h	18	36	18	19	72	20	23	135	19	28	145	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	39	20	21	78	22	25	147	21	30	158	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9	9.3	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	25%	17%	12%
Vol Thru, %	76%	50%	65%	63%
Vol Right, %	11%	25%	18%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	177	72	111	229
LT Vol	23	18	19	28
Through Vol	135	36	72	145
RT Vol	19	18	20	56
Lane Flow Rate	192	78	121	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.25	0.109	0.167	0.314
Departure Headway (Hd)	4.678	5.011	4.975	4.535
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	764	711	717	789
Service Time	2.729	3.077	3.037	2.582
HCM Lane V/C Ratio	0.251	0.11	0.169	0.316
HCM Control Delay	9.3	8.7	9	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.4	0.6	1.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰	↱		↰	↱
Traffic Vol, veh/h	60	1858	18	31	1564	34	4	3	102	11	6	62
Future Vol, veh/h	60	1858	18	31	1564	34	4	3	102	11	6	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	2020	20	34	1700	37	4	3	111	12	7	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1737	0	0	2040	0	0	3082	3965	1020	2929	3957	869
Stage 1	-	-	-	-	-	-	2160	2160	-	1787	1787	-
Stage 2	-	-	-	-	-	-	922	1805	-	1142	2170	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	358	-	-	273	-	-	5	~ 3	234	~ 7	~ 3	295
Stage 1	-	-	-	-	-	-	49	85	-	84	132	-
Stage 2	-	-	-	-	-	-	291	129	-	213	84	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	358	-	-	273	-	-	-	~ 2	234	-	~ 2	295
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 2	-	-	~ 2	-
Stage 1	-	-	-	-	-	-	40	70	-	69	116	-
Stage 2	-	-	-	-	-	-	186	113	-	87	69	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	234	358	-	-	273	-	-	-	295
HCM Lane V/C Ratio	-	0.474	0.182	-	-	0.123	-	-	-	0.228
HCM Control Delay (s)	-	33.5	17.3	-	-	20	-	-	-	20.8
HCM Lane LOS	-	D	C	-	-	C	-	-	-	C
HCM 95th %tile Q(veh)	-	2.3	0.7	-	-	0.4	-	-	-	0.9

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	82	1920	26	53	1515	41	11	194	33	54	205	77
Future Volume (veh/h)	82	1920	26	53	1515	41	11	194	33	54	205	77
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	89	2087	28	58	1647	45	12	211	36	59	223	84
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	180	2334	31	111	2297	63	51	379	63	97	273	96
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	291	3590	48	192	3534	96	35	1528	252	202	1102	388
Grp Volume(v), veh/h	89	1030	1085	58	826	866	259	0	0	366	0	0
Grp Sat Flow(s),veh/h/ln	291	1777	1862	192	1777	1853	1816	0	0	1692	0	0
Q Serve(g_s), s	26.1	43.5	44.0	14.5	27.4	27.6	0.0	0.0	0.0	7.3	0.0	0.0
Cycle Q Clear(g_c), s	53.7	43.5	44.0	58.5	27.4	27.6	11.2	0.0	0.0	18.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.05	0.05		0.14	0.16		0.23
Lane Grp Cap(c), veh/h	180	1155	1210	111	1155	1204	492	0	0	466	0	0
V/C Ratio(X)	0.50	0.89	0.90	0.52	0.72	0.72	0.53	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	180	1155	1210	111	1155	1204	492	0	0	466	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.0	13.1	13.2	41.1	10.3	10.3	29.7	0.0	0.0	32.2	0.0	0.0
Incr Delay (d2), s/veh	9.4	10.6	10.5	16.5	3.8	3.7	4.0	0.0	0.0	12.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.8	22.1	23.2	3.2	13.6	14.2	7.8	0.0	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	23.7	23.7	57.6	14.1	14.1	33.7	0.0	0.0	44.8	0.0	0.0
LnGrp LOS	D	C	C	E	B	B	C	A	A	D	A	A
Approach Vol, veh/h		2204			1750			259			366	
Approach Delay, s/veh		24.3			15.5			33.7			44.8	
Approach LOS		C			B			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.0		27.0		63.0		27.0				
Change Period (Y+Rc), s		* 4.5		* 4.7		* 4.5		* 4.7				
Max Green Setting (Gmax), s		* 59		* 22		* 59		* 22				
Max Q Clear Time (g_c+I1), s		55.7		20.5		60.5		13.2				
Green Ext Time (p_c), s		2.6		0.4		0.0		1.0				

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

Notes

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

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	53	76	29	23	72	28	28	286	38	14	64	24
Future Vol, veh/h	53	76	29	23	72	28	28	286	38	14	64	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	83	32	25	78	30	30	311	41	15	70	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	9.8	13.2	9.2
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	34%	19%	14%
Vol Thru, %	81%	48%	59%	63%
Vol Right, %	11%	18%	23%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	352	158	123	102
LT Vol	28	53	23	14
Through Vol	286	76	72	64
RT Vol	38	29	28	24
Lane Flow Rate	383	172	134	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.523	0.257	0.2	0.161
Departure Headway (Hd)	4.919	5.382	5.392	5.214
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	738	668	666	688
Service Time	2.919	3.416	3.428	3.245
HCM Lane V/C Ratio	0.519	0.257	0.201	0.161
HCM Control Delay	13.2	10.3	9.8	9.2
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	3.1	1	0.7	0.6

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	94	123	59	19	56	70	5	63	7	46	98	62
Future Vol, veh/h	94	123	59	19	56	70	5	63	7	46	98	62
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	-	-	-	-	-	-	-	-	-	-	-	-
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	102	134	64	21	61	76	5	68	8	50	107	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	137	0	0	198	0	0	598	549	166	549	543	99
Stage 1	-	-	-	-	-	-	370	370	-	141	141	-
Stage 2	-	-	-	-	-	-	228	179	-	408	402	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1447	-	-	1375	-	-	414	443	878	446	447	957
Stage 1	-	-	-	-	-	-	650	620	-	862	780	-
Stage 2	-	-	-	-	-	-	775	751	-	620	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1447	-	-	1375	-	-	285	400	878	357	404	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	285	400	-	357	404	-
Stage 1	-	-	-	-	-	-	598	570	-	793	767	-
Stage 2	-	-	-	-	-	-	610	738	-	498	552	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	1	15.9	19.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	410	1447	-	-	1375	-	-	472
HCM Lane V/C Ratio	0.199	0.071	-	-	0.015	-	-	0.474
HCM Control Delay (s)	15.9	7.7	0	-	7.7	0	-	19.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	2.5

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	29	118	30	28	42	15	34	154	21	23	198	34
Future Vol, veh/h	29	118	30	28	42	15	34	154	21	23	198	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	128	33	30	46	16	37	167	23	25	215	37
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.5	9.5	10.5	11.1
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	16%	33%	9%
Vol Thru, %	74%	67%	49%	78%
Vol Right, %	10%	17%	18%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	209	177	85	255
LT Vol	34	29	28	23
Through Vol	154	118	42	198
RT Vol	21	30	15	34
Lane Flow Rate	227	192	92	277
Geometry Grp	1	1	1	1
Degree of Util (X)	0.323	0.284	0.142	0.386
Departure Headway (Hd)	5.112	5.311	5.515	5.012
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	707	675	650	721
Service Time	3.122	3.347	3.556	3.02
HCM Lane V/C Ratio	0.321	0.284	0.142	0.384
HCM Control Delay	10.5	10.5	9.5	11.1
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.4	1.2	0.5	1.8