

Appendix J

Transportation Impact Study



11111 Jefferson Project

Transportation Impact Study

Prepared for:

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FEHR  PEERS

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1. Introduction

This technical study summarizes the results of the transportation study conducted by Fehr & Peers to evaluate the potential transportation impacts of the 11111 Jefferson development in the City of Culver City, California.

Project Description

The proposed Project is located at 11111 Jefferson Boulevard ("Project Site") in Culver City, California ("City"). **Figure 1** illustrates the location of the proposed Project in relation to the surrounding streets.

The Project will add 230 housing units, 11,450 square feet (sf) of new office space, 10,600 sf of new restaurant space, 1,950 sf of new fitness gym space, 38,600 sf of new supermarket space, and 3,900 sf of retail space. The Project will provide a total of 653 parking stalls (308 stalls for residential, 311 stalls for commercial, and 34 spaces for the Exception Children's Foundation (ECF)). The Project will replace the approximately 27,225 sf of existing post office, 6,064 sf of existing restaurant space, 1,722 sf of existing auto service space, and 250 parking spaces (34 of which are associated with ECF).

Project traffic will enter the Project Site from three new driveways, two on Machado Road and the other on Sepulveda Boulevard. Parking for the residential component of the Project and for ECF would enter from the western driveway (closer to Sepulveda Boulevard) on Machado Road opposite Heritage Place, leading to a subterranean garage. A physical island would be installed on Heritage Place to prevent southbound through and left-turn movements from Heritage Place as a Project Design Feature (PDF). Parking for the commercial components would enter at the eastern Machado Road (closer to Jefferson Boulevard) and Sepulveda Boulevard driveways, leading to an above-ground parking garage with parking at grade level and at the second level. The commercial driveway at Sepulveda Boulevard would be opposite Janisann Avenue and is proposed to be signalized. Pedestrian and bicycle access would be provided via internal walkways through the Project Site, connecting existing sidewalks to the proposed land uses. The site plan is illustrated in **Figure 2**.

Study Scope

The scope of work for this study was developed in conjunction with the City's Mobility & Traffic Engineering Division of the Department of Public Works and is in accordance with the City's CEQA transportation thresholds of significance and *Transportation Study Criteria and Guidelines* (TSCG) adopted in July 2020¹. The base assumptions and technical methodologies were discussed as part of a detailed Memorandum of Understanding (MOU) with the City, signed in October 2020. The MOU is included in **Appendix A** to this document. The TSCG establishes an updated set of guidelines, methods, and impact criteria for CEQA considerations that focus on vehicle miles traveled (VMT), geometric hazards, and policy conflicts. The TSCG

¹ On July 13, 2020, the Culver City City Council adopted a resolution formally implementing the City's updated transportation thresholds of significance for CEQA analyses and overall transportation study guidelines. The TSCG is the document providing the guidance for conducting both CEQA and non-CEQA transportation analyses.



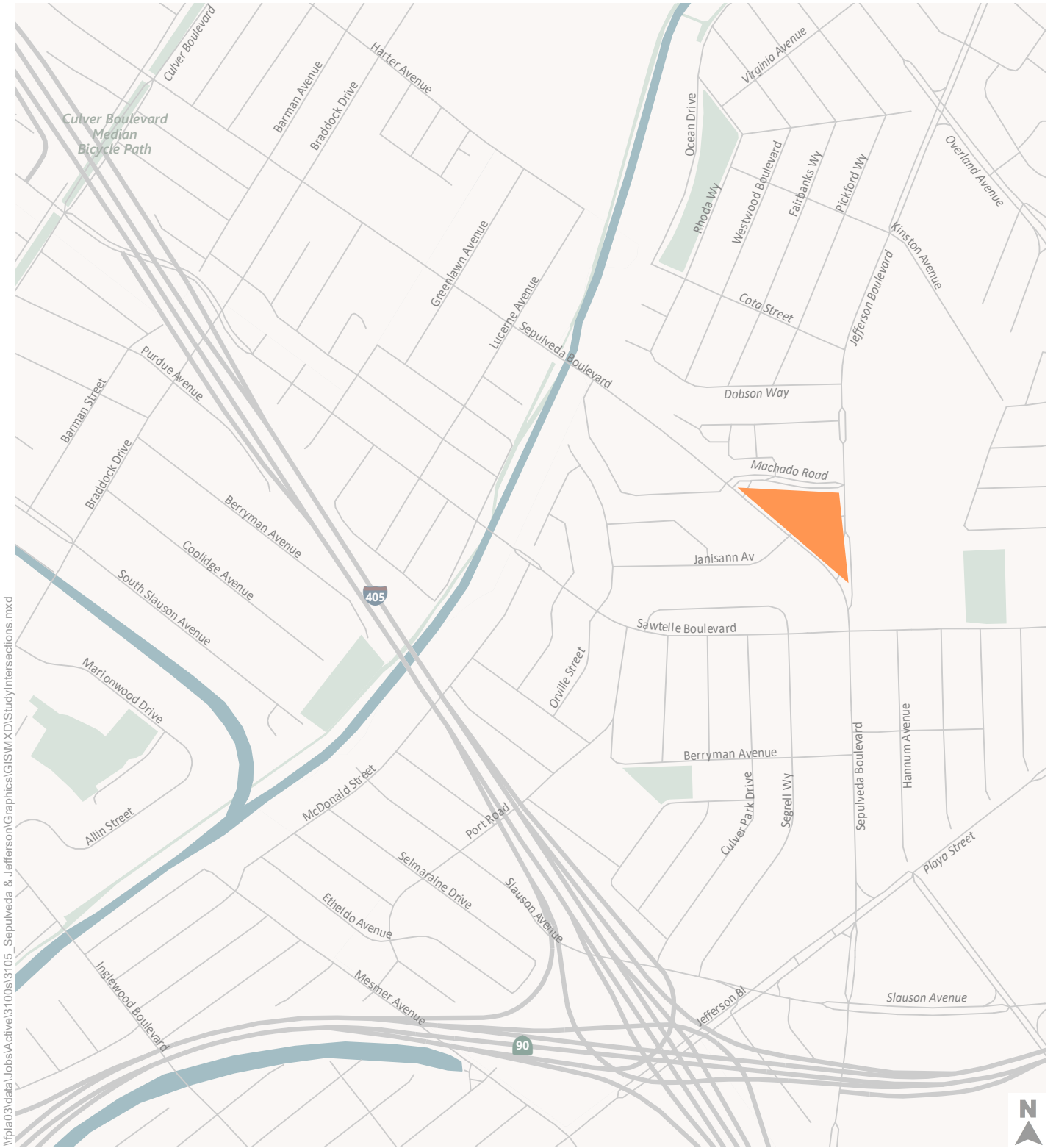
also establishes a framework for various non-CEQA analyses including an intersection analysis, transit operations analysis, driveway analysis, parking assessment, multimodal safety analysis, site plan review, residential street segment analysis, and construction period analysis. Each area of analysis is described in the TSCG with a discussion of methodology, evaluation criteria, and potential corrective action options.

Organization of Study

This study is divided into five chapters, including this introduction, Chapter 1. Chapter 2 describes the existing transportation conditions including an inventory of the streets, highways, and transit service in the study area. The required CEQA analyses are presented in Chapter 3, and includes a review of the City's plans, programs, ordinances, and policies, a VMT analysis, and a geometric hazards evaluation. Chapter 4 includes the required non-CEQA transportation analyses, and contains a site plan review, traffic operations analysis, residential street segment analysis, driveway analysis, parking assessment, transit operations analysis, multimodal safety analysis, and construction period analysis. Chapter 5 contains the study summary and conclusions. Appendices to this study include details of the technical analysis, as follows:

- A. Appendix A includes a copy of the Memorandum of Understanding approved by City of Culver City that describes study parameters and assumptions.
- B. Appendix B provides the output sheets from the City's VMT Calculator.
- C. Appendix C contains vehicle intersection turning movement and street segment counts for analysis locations.
- D. Appendix D includes the level of service (LOS), delay, and queuing analysis sheets for the intersection and driveway operations analyses.





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 Project Site



Figure 1
 11111 Jefferson Project
 Project Site Location



Figure 2

11111 Jefferson Project
Site Plan



CONCEPTUAL - NOT FOR CONSTRUCTION.

2. Environmental Setting

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the Project Site, a review of traffic volumes on these facilities, an assessment of the resultant operating conditions, existing bicycle & pedestrian facilities, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

Study Area

The proposed Project is located at 11111 Jefferson Boulevard in Culver City, California. The Project Site is bound by Sepulveda Boulevard to the southwest, Machado Road to the north, and Jefferson Boulevard to the east. The study area includes the Project Site, its associated street frontages, and the surrounding vicinity. The study area is an urban setting located near existing transit with a variety of land uses and densities. The Project is considered infill development, as it proposes to build on previously developed parcels. All streets in the study area are under the jurisdiction of the City of Culver City.

Existing Street System

Machado Road, Jefferson Boulevard, and Sepulveda Boulevard provide access to the Project Site. Primary regional freeway access to the Project Site is provided by Interstate 405 (San Diego Freeway) and State Route 90 (Marina Freeway). The following is a brief description of the freeways and streets that serve the site:

- San Diego Freeway (I-405) – The San Diego Freeway runs north/south approximately 0.4 miles west of the Project Site. Access to the San Diego Freeway is available via interchanges at Culver Boulevard, SR 90/Slauson Avenue, and Jefferson Boulevard.
- Marina Freeway (SR-90) – The Marina Freeway runs east/west approximately 0.6 miles south of the Project Site and links Marina Del Rey to Culver City. Access to the Marina Freeway is available via Slauson Avenue and I-405.
- Sepulveda Boulevard – Sepulveda Boulevard is a major north/south arterial that provides up to six travel lanes, two to three per direction, with a center left turn lane. Parking is provided within the study area on one side or both sides of the street. The posted speed limit is 40 miles per hour (mph) in the study area.
- Overland Avenue – Overland Avenue is a north/south arterial that provides two travel lanes in each direction, with a center left turn lane where space allows, and parking on both sides of the street. The posted speed limit is 35 mph in the study area, and travels north from Playa Court, providing connections to Interstate 10 about 3 miles north of the Project Site.



- Sawtelle Boulevard – Sawtelle Boulevard is primarily a north/south avenue that runs east/west and northwest/southeast in the vicinity of the Project, with a center left turn lane and one travel lane in each direction. Parking is provided on both sides of the street, and the posted speed limit is 35 mph.
- Jefferson Boulevard – Jefferson Boulevard is a major north/south arterial that provides two travel lanes in each direction. Parking is provided on some portions of the street, including on the west side next to the Project Site. The posted speed limit is 35 mph.
- Machado Road – Machado Road is a short east/west street that connects Sepulveda Boulevard and Jefferson Boulevard directly north of the Project Site. There are two travel lanes in each direction on Machado, no parking provided, and no posted speed limit.
- Slauson Avenue – Slauson Avenue is an east/west arterial that provides three travel lanes in each direction with no parking east of Jefferson and one travel lane in each direction with parking west of Jefferson. The posted speed limit is 40 mph east of Jefferson and 25 mph west of Jefferson.

Existing Transit

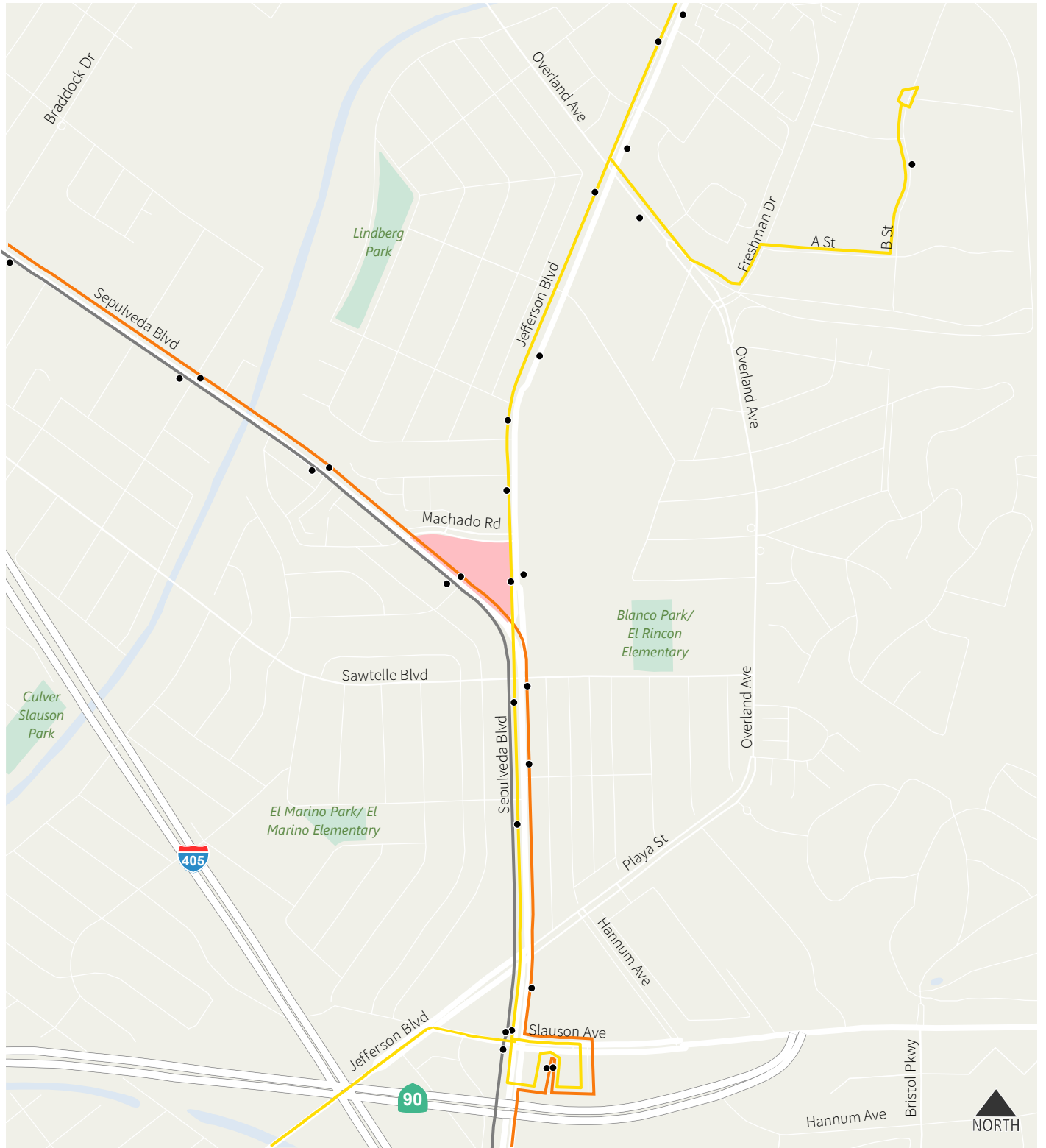
Three bus lines currently serve the Project Site and study area. These transit lines are detailed below and in **Table 1** and illustrated in **Figure 3**. The bus service as described below pertains to conditions before the COVID-19 Pandemic. Although bus service was temporarily reduced and would be expected to fluctuate as the situation evolves, it is expected that service would return to pre-pandemic conditions in the long-term future.

- Culver City Bus Line 3 – Line 3 is a local north/south route travel from Culver City Fox Hills to Century City. It runs mainly along Overland Ave. on both weekdays and weekends. Its Sunday route will service the project at the bus stops on Jefferson Blvd. Line 3 also provide connection to Culver City Transit Center, the Culver Center, and the Palms neighborhood.
- Culver City Bus Line 4 – Line 4 is a local east/west route traveling from Playa Vista to the West LA Transit Center on weekdays and Saturdays. The route travels along Jefferson Boulevard and Slauson Avenue in the study area. This line provides service to West Los Angeles College, the Culver City Transit Center, the Metro E (Expo) Line light rail at La Cienega/Jefferson Station, and West Los Angeles Transit Center. The ridership of Bus Line 4 was 235,098 annual trips in Fiscal Year 2019.
- Culver City Bus Line 6 – Line 6 is a north/south line that travels along the Sepulveda corridor from UCLA to the LA Metro C Line (Green) Aviation Station. Line 6 runs on both weekdays and weekends. This line also provides service to the Culver City Transit Center at the Westfield Culver City Mall and the Metro E (Expo) Line light rail at Expo/Sepulveda Station. The ridership of Bus Line 6 was 1,523,785 annual trips in Fiscal Year 2019.
- Culver City Bus Rapid 6 – Rapid 6 is a north/south line that serves major intersections along Sepulveda Boulevard on weekdays only. The Rapid 6 also provides service to the Metro E (Expo) Line light rail at Expo/Sepulveda Station and connect to the Culver City Transit Center. Rapid 6 does not go into the Culver City Transit Center in order to achieve better travel time. The ridership of Bus Line Rapid 6 was 898,681 annual trips in Fiscal Year 2019.



**TABLE 1
EXISTING TRANSIT SERVICE
(BEFORE COVID-19 PANDEMIC)**

| Line Number | Operator | Service Type | Service From | Via | Weekday Headways | |
|-------------|----------------|--------------|--------------------------------|--------------|------------------|------------|
| | | | | | AM | PM |
| 3 | Culver CityBus | Local | Century City to Fox Hills | Overland Bl | Sundays Only | |
| 4 | Culver CityBus | Local | Playa Vista to Expo/La Cienega | Jefferson Bl | 30-40 min. | 30-40 min. |
| 6 | Culver CityBus | Local | UCLA to LAX | Sepulveda Bl | 12-20 min. | 12-20 min. |
| 6R | Culver CityBus | Rapid | UCLA to LAX | Sepulveda Bl | 15 min. | 15 min. |



- ▭ Project Site
- Bus Stops
- 4 Jefferson Blvd
- 6 Sepulveda Blvd
- 6 Rapid Sepulveda Blvd

Bus Route Ridership (2019 Total)

- 4 Jefferson** - 235,098 Rides
- 6 Sepulveda** - 1,523,785 Rides
- 6 Rapid Sepulveda** - 898,681 Rides



Figure 3

Existing Weekday Transit Map

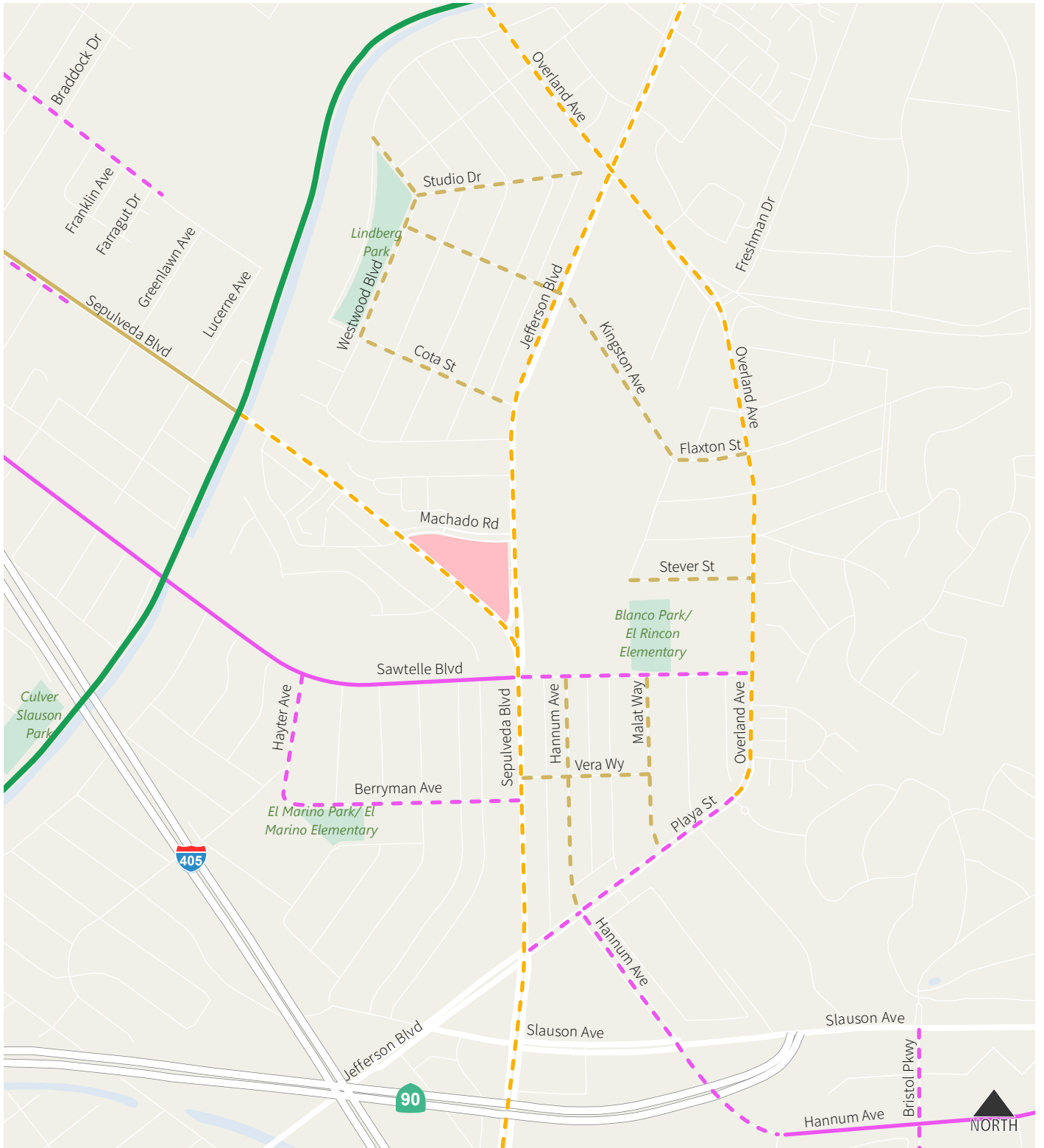
The Westfield Culver City Transit Center is also located approximately 0.7 miles south of the Project Site. The Transit Center is not only serviced by Culver City Bus Lines 4, 6, and Rapid 6, but also Metro Lines 108/358 and 110.

Existing Bicycle and Pedestrian Facilities

The Project Site is served by dedicated bicycle infrastructure within the study area. A Class I facility, the Ballona Creek Bike Path, runs along Ballona Creek approximately ¼-mile northwest of the Project Site and provides bike and pedestrian connections to Marina Del Rey in the west and near Downtown Culver City in the east. Class II bike lanes run along Sawtelle Boulevard west of Sepulveda Boulevard, providing a connection to the Ballona Creek Bike Path, and a Class III bike route runs along Sepulveda Boulevard north of Machado Road. A map of the existing bike facilities, in addition to the proposed bike facilities per the Culver City Bicycle & Pedestrian Action Plan (“Action Plan”), adopted by City Council in June 2020, is illustrated in **Figure 4**. According to the Action Plan, Class IV separated bikeways are recommended along Sepulveda Boulevard and Jefferson Boulevard along the Project Site frontages.

All of the streets immediately bordering the Project Site and all other public streets in the vicinity include sidewalks on both sides of the street, facilitating pedestrian movement. Marked crosswalks are present at all signalized intersections in the study area. Pedestrian walk phases are either automatically provided at the intersections or are actuated by pedestrian push-buttons.





- ▾ **Project Site**
- Existing Bikeways**
- **Class I Shared Use Path**
- **Class II Bicycle Lane**
- **Class III Neighborhood Greenway**
- Proposed Bikeways**
- - - **Class II Bicycle Lane**
- - - **Class III Neighborhood Greenway**
- - - **Class IV Separated Bikeway**



Figure 4

Existing & Planned Bike Facilities Map

Source: Culver City Bicycle & Pedestrian Action Plan

3. CEQA Transportation Analyses

As part of updated CEQA guidelines, an analysis needs to be conducted for proposed land use projects to determine whether they cause a significant impact on VMT. The following section is a background on VMT and an assessment of VMT generated by the Project.

SB 743 Background

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law and started a process that fundamentally changed transportation impact analysis conducted as part of California Environmental Quality Act (CEQA) compliance. The Governor's Office of Planning and Research (OPR) was charged with developing new guidelines for evaluating transportation impacts under CEQA using methods that no longer focus on measuring automobile delay and level of service (LOS).

OPR issued proposed updates to the CEQA guidelines in support of these goals in November 2017² and a supporting technical advisory in December 2018.³ The updates established VMT as the primary metric for evaluating a project's environmental impacts on the transportation system. The changes to CEQA Guidelines Section 15064.3 to implement SB 743 were certified by the California Natural Resources Agency in December of 2018⁴. Local jurisdictions were required to revise their procedures accordingly by July 2020. The City, as the lead agency, adopted new significance thresholds for transportation impacts based on VMT, a VMT Calculator tool to measure VMT for development projects, as well as new transportation study guidelines. These thresholds and guidelines were developed in 2019 and 2020 and were adopted at a City Council Meeting on July 13, 2020.

Vehicle Miles Traveled Analysis

The City developed a VMT Calculator tool to assess the VMT impacts of proposed development projects within the City. The VMT Calculator also assesses the effectiveness of selected Transportation Demand Management (TDM) measures proposed for a project based on available research. Analysis was conducted for the Project using the City's VMT analysis procedures identified in the City's transportation study guidelines and VMT Calculator. This analysis considered both the Project's proposed land uses and the TDM program proposed as mitigation.

² State of California, Governor's Office of Planning and Research, *Proposed Updates to the CEQA Guidelines, Final*, November 2017.

³ State of California, Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

⁴ State of California, Natural Resources Agency, Final Adopted Text, December 2018.

https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf



VMT Impact Criteria

The City's VMT impact criteria for development projects is specified in the TSCG. Per the criteria, a development project would have a potential significant impact if the Project meets one or more of the following:

- For residential projects, a development project may have a potential significant impact if it generates daily household VMT per capita exceeding 15% below the existing average daily household VMT per capita for the City. The City's existing average daily household VMT per capita is 8.3, meaning a residential project would have a significant impact if it generates daily household VMT per capita exceeding 7.1. This criterion was used for the multifamily residential component of the Project.
- For office projects, a development project may have a potential significant impact if it generates daily work VMT per employee exceeding 15% below the existing average daily work VMT per employee for the City. The City's existing average daily work VMT per employee is 10.1, meaning an office project would have a significant impact if it generates daily work VMT per employee exceeding 8.6. This criterion was used for the office component of the Project.
- Local-serving retail development tends to shorten trips and reduce VMT whereas regional-serving retail development can lead to substitution of longer trips for shorter ones and could increase VMT. Local-serving is defined as retail uses less than 50,000 square feet for each individual store. This criterion was used for the restaurant, retail, gym, and supermarket components of the Project.

As a mixed-use project, each component was evaluated separately and the impact criteria above for each individual land use was applied.

Impact Analysis

Per the City's procedures, household VMT per capita and office VMT per employee were estimated using the City's VMT Calculator tool for the Project. The VMT Calculator starts with Institute of Transportation Engineers (ITE, 10th Edition) trip generation rates, and then implements the MXD (mixed-use) methodology from the U.S. Environmental Protection Agency (EPA) and utilizes socioeconomic, transit, and trip length data from the Culver City citywide travel demand model (itself calibrated to Culver City conditions) to adjust the trips for internalization, transit, and walkability. The VMT Calculator was calibrated based on local count data collected in the City. The VMT Calculator allows for the selection of a wide variety of potential land uses.

Appendix B presents the City's VMT Calculator dashboard and calculations as analyzed for the Project. The Project is estimated by the Calculator to produce a total of 4,934 daily vehicle trips and a total daily VMT of 32,774.



Residential VMT

As shown in **Appendix B**, the daily household VMT per capita is estimated at 5.7, below the threshold of 7.1 for the City. Thus, the Project is not projected to have a significant impact on household VMT per capita as estimated by the VMT Calculator.

Office VMT

As shown in **Appendix B**, the daily work VMT per employee is estimated at 9.2, above the threshold of 8.6 for the City. Thus, the Project is projected to have a potentially significant impact on work VMT per employee as estimated by the VMT Calculator, without mitigation.

Retail VMT

Each of the restaurant, retail, gym, and supermarket spaces would be under 50,000 square feet in size and therefore would be considered as local serving. Therefore, the above uses are screened from further VMT analysis, and the retail VMT impact would be considered less than significant.

Transportation Demand Management Measures

In order to mitigate the significant work VMT per employee impact, a TDM program is proposed. A TDM program consists of strategies that are aimed at discouraging single-occupancy vehicle trips and encouraging alternative modes of transportation, such as carpooling, taking transit, walking, and biking.

Project Site Design Elements

The Project as proposed includes compliance with regulatory requirements and site design elements that would be expected to enhance the usage of walking, biking, and transit modes as alternatives to the automobile. The Project's site design includes implementation of pedestrian network improvements throughout and around the Project Site including sidewalk improvements on all Project frontages, internally linking all uses within the Project Site, and connecting the Project Site to the surrounding public pedestrian network. The Project also includes the provision of new crosswalks to provide safer pedestrian crossings of Sepulveda Boulevard at the proposed new traffic signal at Janisann Avenue.

Bicycle racks for visitors would be available at the corner of Machado Road and Sepulveda Boulevard, the corner of Jefferson Boulevard and Sepulveda Boulevard, and in front of the ground level market by the surface parking spaces for the retail uses, and bicycle lockers would be provided for residents in the subterranean parking level. Two bus stops are currently located along the Project Site frontage, one on northbound Sepulveda Boulevard south of Machado Road, the other on southbound Jefferson Boulevard between Machado Road and Jefferson Boulevard. The bus stop on Sepulveda Boulevard serves Line 6 and contains signage, seating, bus stop pad, and a trash receptacle. The stop on southbound Jefferson Boulevard serves Lines 3 & 4 and contains a bus shelter, seating, signage with scheduling, and a trash receptacle.

The Project proposes the relocation of these two bus stops along to facilitate pedestrian access to transit. Existing bus stop amenities would be maintained or replaced at these relocated bus stops, along with the



following new bus stop amenities: bus shelters, real-time arrival information displays, bus pads, red curbs, and dedicated micromobility drop zones near the bus stops. Voluntary TDM Measures

The following voluntary TDM measures will be implemented to reduce vehicle trips generated by the Project.

- Public Bike Share Station – Working with the City and the LA Metro Bike Share program, the Project would sponsor the installation of a bicycle sharing station along the Project frontage for public use. This would encourage biking to and from the Project Site by residents, employees, and visitors.
- Amenities – The Project would install secured bicycle parking with a self-repair (“fix-it”) station as part of the required long-term bicycle parking for residents and employees.
- E-Assist Bicycles – Several electric-assisted rental bicycles would be provided for residents and employees of the Project Site to reduce short distance vehicle trips originating from the Project Site.
- Dedicated Carshare Spaces – The Project would dedicate 2-3 parking spaces within the parking structure for carsharing vehicles managed by an outside vendor. This would provide opportunities for Project Site residents to forego additional vehicle ownership by sharing vehicles with other residents.
- Subsidized Transit Passes – The Project would work with local public transit agencies to offer subsidized transit passes to encourage transit ridership. This would reduce vehicle trips to and from the Site.
- Guaranteed Ride Home Program – The Project Site would sponsor a guaranteed ride home for Project Site employees who came to work without their own car in the event of an unexpected situation or emergency when walking, biking, carpooling, or taking transit home would not be feasible.
- Bicycle Lanes – The Project would establish bike lanes along the abutting segment of Sepulveda Boulevard between Machado Road and Jefferson Boulevard, as well as pay a pro-rata share towards the design and construction of bike lanes on Sepulveda Boulevard between Machado Road and the Ballona Creek Bike Path. This bicycle infrastructure link with Ballona Creek Bike Path would encourage bicycling trips to and from the Project Site and other areas of Culver City.

TDM Mitigation Measures

The following TDM measures available in the VMT Calculator are proposed to mitigate the potentially significant work VMT per employee impact:

- Commute Marketing Program – This strategy involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices. At a minimum, this strategy includes educational and promotional materials, and a TDM Coordinator from building management to oversee the TDM program, such as field questions,



manage regular updates of transportation materials for the Project Site, and coordinate carpool and ridesharing options.

- Off-Street Parking Pricing – This strategy implements parking pricing for spaces within the Project Site for office employees. This would mean that employees of the office land use would need to pay for a parking spot within the Project Site garage, separate from the cost of the lease for the office space.

TDM Mitigation Effectiveness

The VMT Calculator was used to quantify the potential VMT reduction for the Project due to implementation of those TDM mitigation measures available in the Calculator. The VMT Calculator incorporates research from the California Air Pollution Control Officers Association (CAPCOA, 2010), Northeast States for Coordinated Air Use Management, National Association of Clean Air Agencies, Environ, and Fehr & Peers. It considers a variety of TDM strategies and the setting in which they may apply, estimates effectiveness for each, and applies caps when appropriate (for example, simply aggregating the effectiveness of individual TDM measures can sometimes yield a result that is overestimated since more than one measure may be targeting the same trip).

The Project would implement the commute marketing program for all land uses and would apply the off-street parking pricing mitigation to only the office employees. The VMT Calculator does not automatically apply the mitigation to just the office employee trips, so the reduction in VMT and trips was calculated separately. **Appendix B** provides the VMT Calculator outputs and adjustments made.

According to the Culver City VMT Calculator, implementation of the proposed TDM mitigation measures would reduce the Project work VMT per employee from 9.2 to 8.4, below the threshold of 8.6 for the City. Thus, the proposed TDM mitigation measures would mitigate the significant work VMT per employee impact to a less-than-significant impact.

A TDM plan will be prepared that will detail the program elements and would be imposed as a condition of approval for Project approval. The City requires that the TDM plan be prepared during construction, with the final TDM plan approved by the City prior to the City's issuance of the certificate of occupancy for the Project. TDM elements that pertain to site design would be implemented during building construction. Implementation of the remaining elements of the TDM plan, such as the TDM mitigation measures, would occur after building occupancy. The City Planning Division, Public Works Department, and Transportation Department would monitor TDM measures compliance and efficacy after Project occupancy.

Plans, Programs, Ordinances, and Policies Conflict Review

The City's TSCG includes a review for conflicts with transportation-related plans, programs, ordinances, or policies. Based on applying the screening criteria, the threshold test is to assess whether a project would conflict with an adopted program, policy, plan, or ordinance that is adopted to protect the environment. A project would not be shown to result in an impact merely based on whether a project would not implement a particular program, policy, plan, or ordinance. Rather, it is the intention of this threshold test to ensure that proposed development does not conflict with nor preclude the City from implementing adopted



programs, plans, and policies. This evaluation was conducted by reviewing the following City documents: General Plan Circulation and Land Use Elements, Short Range Transit Plan, Bicycle and Pedestrian Action Plan, and Complete Streets Policy.

General Plan Circulation and Land Use Elements

These documents guide the physical development of neighborhoods, providing neighborhood level detail for land uses, the transportation network, policies, and implementation strategies. The following is a review of the transportation related measures, objectives, and policies:

Circulation Element (CE) Policy 1.A

Facilitate movement of vehicles at intersections and along roadway links by increasing capacity, improving operation, and reducing volumes as appropriate and feasible.

The Project would support this policy by providing mixed-use development, allowing residents within the Project Site and in nearby areas to access retail services in the Project Site by walking or reducing the need to drive longer distances. The Project would also provide a new curb cut pick-up/drop-off zone on northbound Sepulveda Boulevard to serve the residential use. This pick-up/drop-off zone would facilitate smoother operations on northbound Sepulveda by keeping pick-up/drop-off operations out of through and bike lanes and would be located south of the Machado Road intersection. In addition, the reduction of existing curb cut driveways from 10 to three would improve traffic flow and reduce the number of vehicle-vehicle and vehicle-pedestrian conflicts.

CE Policy 1.F

Reduce driveways and curb cuts on arterials in favor of side street and alley access, where appropriate, considering potential impacts on the neighborhoods served by the side streets.

The proposed Project would support this policy by reducing the number of driveways and curb cuts on the Project Site from 10 to three. This would reduce the number of conflict points between transportation modes on Project Site frontages.

CE Policy 2.C

Maintain levels of transit service that are adequate to meet and encourage ridership demand.

The proposed Project would support this policy by providing new mixed-use and market rate and affordable housing development adjacent to frequently running transit lines, which would encourage ridership. The proposed TDM plan would also encourage ridership through a commute marketing program. The Project would also facilitate the relocation of existing bus stops closer to intersection corners and crosswalks on the far side, which would facilitate pedestrian access to public transit.

CE Policy 2.H

Encourage public transit links to sites of high trip-generating uses to maximize transit use by patrons and employees.



The proposed Project would support this policy by providing new mixed-use and market rate and affordable housing development adjacent to frequently running transit lines, which would encourage ridership. The proposed TDM plan would also encourage ridership through a commute marketing program.

CE Policy 3.B

Expand the bicycle system to include loops which connect the Ballona Creek Bicycle Path to activity centers in the City.

The Project would support this policy by establishing bike lanes along the abutting segment of Sepulveda Boulevards and contributing its fair share towards the installation of bicycle lanes on Sepulveda Boulevard between Machado Road and the Ballona Creek Bike Path.

CE Policy 3.D

Seek public and private contributions to provide support facilities for bicycle users (such as racks, secure storage, drinking fountains, etc.) where bikeways connect to turnouts, parks, and other open space areas, as appropriate.

The proposed Project would support this policy by providing 71 long-term secured bicycle parking spaces, 26 short-term visitor bicycle parking spaces, and a bicycle share and repair facility.

CE Policy 3.G

Encourage large business, commercial centers, and industrial parks to include bicycle lockers, or other secure bicycle storage and related facilities, to support bicycle commuting by employees.

The proposed Project would support this policy by providing 71 long-term secured bicycle parking spaces, 26 short-term visitor bicycle parking spaces, lockers, and a bicycle share and repair facility.

CE Policy 4.C

Provide safe and attractive pedestrian walkways/sidewalks which link streets and parking areas to the entrances of major developments.

The proposed Project would support this policy by providing new sidewalk and pedestrian facilities around and through the Project Site. The pedestrian facilities will be beautified by high quality architecture and ample landscaping and open space. The Project would also install new pedestrian crossings at the proposed traffic signal at the intersection of Sepulveda Boulevard and Janisann Avenue.

CE Policy 4.D

Enhance the aesthetic qualities of pedestrian access routes by increasing amenities, such as trees, awnings, lighting, street furniture, and drinking fountains, etc.

The proposed Project would support this policy by enhancing the Project frontage sidewalks with street trees, lighting, and aesthetic treatments on building facades.



New 8-foot wide sidewalks would be installed on Sepulveda and Jefferson Boulevards as well as on Machado Road. In addition, the Project would provide new roadway curb and street trees on the southern edge of Machado Road along the Project Site frontage. Ground level open space would include: a publicly accessible park at the corner of Machado Road and Sepulveda Boulevard (Machado Park), a public paseo with an interior courtyard adjacent to the ground floor retail uses at the intersection of Sepulveda Boulevard and Jefferson Boulevard (Paseo Courtyard), and a courtyard at the building entrance on Sepulveda Boulevard across from Janisann Avenue (Entry Courtyard). Private open space with residential amenities would be located on the third level of the development. The provision of publicly accessible open space at the intersections would contribute to a sense of place and would provide a gathering area that would liven the pedestrian environment.

In addition, the parking structure would be screened through the use of vertical panels, including green panels, and landscaping. Landscaping would be installed in the proposed open space areas, including Machado Park, as well as in locations facing the public realm. Street trees would be planted along the street frontages in accordance with City requirements.

CE Policy 6.B

Reduce pressure on on-street parking through provision of private and public off-street parking facilities.

The proposed Project would support this policy by providing an adequate amount of parking according to the Culver City Municipal Code and California Government Code, which require 625 off-street parking spaces. The Project would provide 653 off-street parking spaces, more than required. In addition, the Project Site would continue to provide 34 secured off-street parking spaces for ECF use.

CE Policy 6.D

Allow shared parking for adjacent uses, where appropriate.

The proposed Project is mixed-use by nature, which would allow patrons to park once and access multiple types of uses.

Land Use Element

No transportation related measures, objectives, or policies were found to require Project review in the Land Use Element.

Short Range Transit Plan

The Culver CityBus Short Range Transit Plan provides a service analysis of the current fixed route service and the impact of local and regional transit projects, an evaluation of main corridors and the on-demand services offered, such as Dial-A-Ride and microtransit. It focuses on public transportation services, enhancing fixed route and paratransit services, expanding micro mobility with scooters and bikes, and offering microtransit services. The implementation of the Short Range Transit Plan is largely within the purview of the City rather than private developers. The Project would not preclude the implementation of the Short Range Transit Plan. The Project would be in support of this plan by facilitating the relocation of



bus stops to be closer to intersections and crosswalks, which would improve pedestrian access to public transit.

Bicycle and Pedestrian Action Plan

The City's Action Plan establishes the visions and values that focus on establishing walking and cycling as viable modes of travel for all trip types. The Plan aims to provide a safe, convenient, and accessible active transportation network, accessible by users of all ages and abilities. The Action Plan was adopted by City Council in June 2020, and supersedes the 2010 City's Bicycle and Pedestrian Master Plan. The following is a review of the transportation related measures, objectives, and policies in the Action Plan:

Action AC-1.2

Increase the supply of bicycle parking at neighborhood destinations like schools, medical centers, grocery stores, transit stations, and government offices.

The Project supports this action by providing both short-term visitor and long-term tenant bicycle parking near the grocery store land use.

Action HS-1.1

Prioritize quick implementation of active transportation facilities on Culver City's high-injury network to rapidly address known safety issues.

The adjacent segments of Sepulveda Boulevard and Jefferson Boulevard are identified as high injury corridors based on the City's analysis of 5-year collision data. The Project would not preclude the implementation of active transportation facilities on Culver City streets, and would establish bike lanes on Sepulveda Boulevard in the project area. The Project would also install a signalized pedestrian crossing at the intersection of Sepulveda Boulevard and Janisann Avenue, which would improve pedestrian crossing safety and access in the area.

Action HS-3.2

Use current design guidelines to encourage development patterns that promote active transportation and allow for short trips between destinations.

The Project supports this action by proposing a mixed-use development that encourages pedestrian trips and shorter trips between destinations. It also provides local serving retail to shorten trips for other residents of the area. New sidewalks would be provided along the perimeter of the Project Site, improving conditions for those walking along Sepulveda Boulevard, Jefferson Boulevard, and Machado Road.

Action HS-4.1

Build an active transportation network that encourages Culver City residents to use means of transportation other than driving by providing safer, more comfortable biking and walking facilities.



The Project supports this action by implementing bicycle lanes on the abutting segment of Sepulveda Boulevard and contributing a pro-rata share towards the design and construction of bike lanes on Sepulveda Boulevard between Machado Road and the Ballona Creek Bike Path to encourage bicycling.

Complete Streets Policy

The Complete Streets Policy lays out a plan for designing safer, more vibrant streets, that are accessible to people, no matter how they travel. The Complete Streets Design Guidelines had not yet been developed at the time of this study but are anticipated in the future. The following policies in the Complete Streets Policy are relevant to the Project:

Policy 5a.i

The City will plan, design, operate, and maintain a transportation system that provides a connected network of streets and facilities that accommodate all modes of travel. The City will actively seek opportunities to repurpose or enhance rights-of-way to improve connectivity for pedestrians, bicyclists, and transit users.

The Project supports this policy by introducing development that is conducive to walking, biking, and taking transit. The Project would introduce new 8-foot-wide sidewalks, bicycle parking, bicycle share, and a bicycle repair facility. The Project additionally would enhance pedestrian rights-of-way by introducing street facing retail and landscaping along the sidewalks. Existing bus stops along the Project frontage would be relocated to intersection corners to improve pedestrian access to public transit. The proposed traffic signal at Sepulveda Boulevard and Janisann Avenue would facilitate safer signalized pedestrian crossings to and from the Project Site.

Policy 5a.ii

The City will pursue enhancements to the bicycle and pedestrian connectivity to public transit services, as well as to schools, parks, service retail, public facilities, regional connections, and business districts.

The Project supports this policy by introducing new 8-foot-wide sidewalks along Project frontages, and installing new signalized crosswalks at the intersection of Sepulveda Boulevard and Janisann Avenue. The new crossing would provide access to bus stops and retail on southbound Sepulveda Boulevard and the neighboring community.

Policy 5b.ii

The City will emphasize pedestrian access along and across City streets by, for example, providing convenient and protected crossing locations, shortening crossing distances through the use of curb extensions and tight curb radii, and enhancing signage and pavement markings.

The Project supports this policy by introducing new 8-foot-wide sidewalks along Project frontages and new signalized crosswalks across Sepulveda Boulevard at Janisann Avenue. The new crossings would provide safer signalized and marked crossings.



Policy 5d.ii

The City will coordinate street improvements with business owners along retail and commercial corridors to develop or enhance vibrant business districts.

The Project supports this policy by introducing development that is conducive to walking, biking, and taking transit. The Project would enhance pedestrian rights-of-way by introducing street facing retail and landscaping along the sidewalks. Pedestrian connectivity throughout the Project Site would be enhanced with internal walkways connecting to existing sidewalks.

Conclusion

The Project features and design support multimodal transportation options and would be consistent with policies, plans, ordinances, and programs that support alternative modes of transportation. The Project design includes features to minimize impacts to the public right-of-way and enhance the user experience by integrating multimodal transportation options.

The Project would not conflict with adopted policies, plans, ordinances, and programs, or preclude City action to fulfill or implement projects associated with these networks and will contribute to overall walkability through enhancements to the Project Site. Therefore, the Project would have a less than significant impact on the City's transportation-related plans, programs, ordinances, and policies.

Geometric Design Hazards

This section discusses impacts regarding the potential increase of hazards due to a geometric design feature that generally relates to the design of access points to and from the Project Site and may include safety, operational, or capacity impacts.

Pedestrian access to the Project Site would be provided via new 8-foot-wide sidewalks around the perimeter of the Project Site and through pedestrian plazas/paseos accessible to the neighborhood. Residents and visitors arriving at the Project Site by bicycle would have the same access opportunities as pedestrians and would be able to utilize on-site bicycle parking facilities. The Project's access locations would be designed to the City's adopted standards and would provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. All three Project driveways will intersect streets (Machado or Sepulveda) at right angles. Street trees and other potential impediments to adequate driver and pedestrian visibility would be minimized. Pedestrian entrances separated from vehicular driveways with curb and sidewalk would provide access from the adjacent streets, parking facilities, and transit stops. The streets immediately bordering the Project Site and nearly all the other streets in the vicinity include sidewalks, facilitating pedestrian movement. Marked crosswalks are present at most of the heavily trafficked intersections in the study area.

The Project was analyzed with the following driveway scenario:

- Vehicle access via 3 driveways, described below:



- Residential-only driveway leading to underground parking on Machado Road opposite the Heritage Place intersection. This driveway would also serve the ECF parking. Based on community consultation, a channelizing island would be installed to prevent southbound through movements from Heritage Place into the residential driveway, as well as southbound left-turn movements.
- Commercial use driveway on Machado Road, west of the Machado Road and Jefferson Boulevard intersection by approximately 100 feet. This driveway would serve commercial parking and the grocery loading dock, and outbound left-turns onto westbound Machado Road would be prohibited.
- Commercial use driveway on Sepulveda Boulevard, aligned with the intersection of Sepulveda Boulevard and Janisann Avenue. All movements would be allowed at this signalized driveway intersection.

In addition, the Project would install a new traffic signal at the Project driveway on Sepulveda Boulevard, where it intersects with Janisann Avenue. This would provide safe crossings for pedestrians accessing the Project from the Sunkist Park neighborhood across Sepulveda Boulevard.

The Project would eliminate seven of the 10 existing driveways. The three Project driveways would be designed to comply with City standards. The driveway on Sepulveda Boulevard would be designed and configured to avoid or minimize potential conflicts with transit services and pedestrian traffic by relocating bus stops, installing marked crosswalks, and providing curb and sidewalk to separate pedestrian movements from vehicular movements. The Project includes the proposed relocation of the bus stop for Culver City Bus Line 6 on northbound Sepulveda Boulevard. The bus stop is proposed to shift approximately 100-200 feet to the south and will be on the far-side of the newly signalized intersection of Janisann Avenue and Sepulveda Boulevard. Also, the Project includes the proposed relocation of the bus stop for Culver City Bus Lines 3 and 4 on southbound Jefferson Boulevard. The bus stop is proposed to shift approximately 100-200 feet to the north and would be on the far-side of the intersection of Machado Road and Jefferson Boulevard. The other two driveways do not pose conflicts as there is no adjacent transit stop. No new near-side bus stops would be established. The Project would not substantially increase hazards or conflicts and would contribute to overall walkability through enhancements to the Project Site. Therefore, the Project would cause a less than significant impact regarding geometric design hazards.



4. Non-CEQA Transportation Analyses

The purposes of the non-CEQA transportation analyses required in Culver City's TSCG are to promote orderly development, evaluate and address transportation-system issues, and promote public safety and the general welfare by ensuring that development projects are properly related to their sites, surrounding properties, and traffic circulation. This section includes a site plan review, intersection operations analysis, driveway operations analysis, residential street segment analysis, parking assessment, multimodal safety analysis, transit operations analysis, and a construction period analysis.

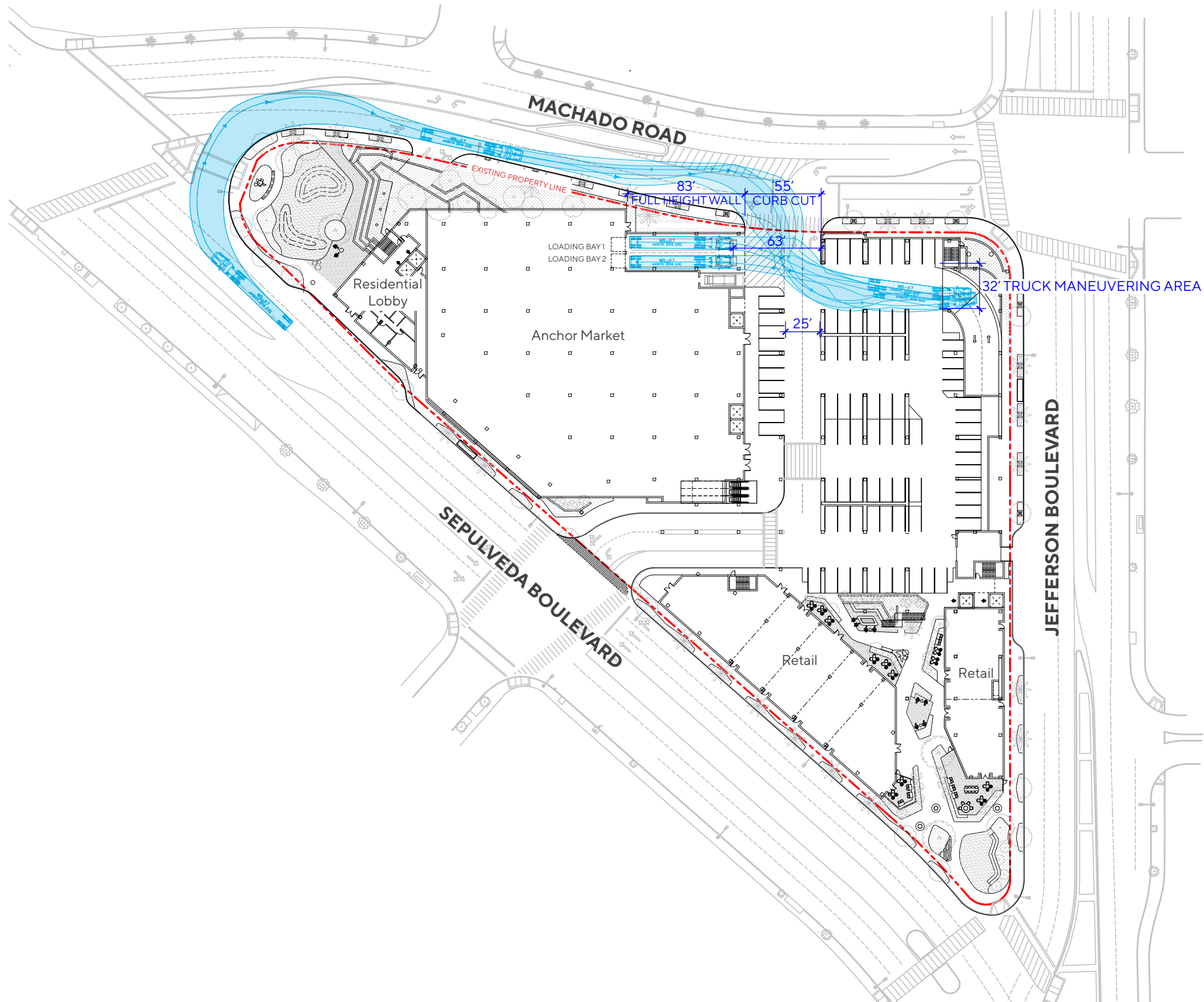
Site Plan Review

As mentioned in the CEQA geometric hazards analysis, the proposed Project would not introduce a significant impact in regards to geometric design hazards. As shown in Figure 2, the Project would propose three driveways, a reduction of seven from the 10 driveways that currently serve the existing uses on the Project Site. One driveway on Machado Road east of Sepulveda Boulevard opposite of Heritage Place would be for residential use traffic and ECF parking only and is proposed to be unsignalized. The southbound Heritage Place and northbound Project Site approaches would be stop-controlled. Based on community consultation, southbound through and left-turn movements from Heritage Place into the Project Site would be prohibited using a channelizing island as a Project Design Feature, while other movements would be allowed. One additional unsignalized driveway on Machado Road would be west of Jefferson Boulevard and east of the residential driveway and would serve commercial uses and the loading dock. Left-turn access would be provided into the driveway from Machado Road, but left-turns out of the Project Site onto Machado Road from the driveway would not be allowed. The third Project driveway would be provided on Sepulveda Boulevard, opposite of Janisann Avenue. This driveway is proposed to be signalized with full access. One westbound left-turn lane and one shared through-right lane would be provided on the Project side approach. Further driveway LOS and queuing analysis is provided in the operations analysis.

The Project would also provide a new curb cut pick-up/drop-off zone on northbound Sepulveda Boulevard to serve the residential use and the community. This pick-up/drop-off zone would not reduce the number of through lanes on Sepulveda, and would be located south of the Machado Road intersection.

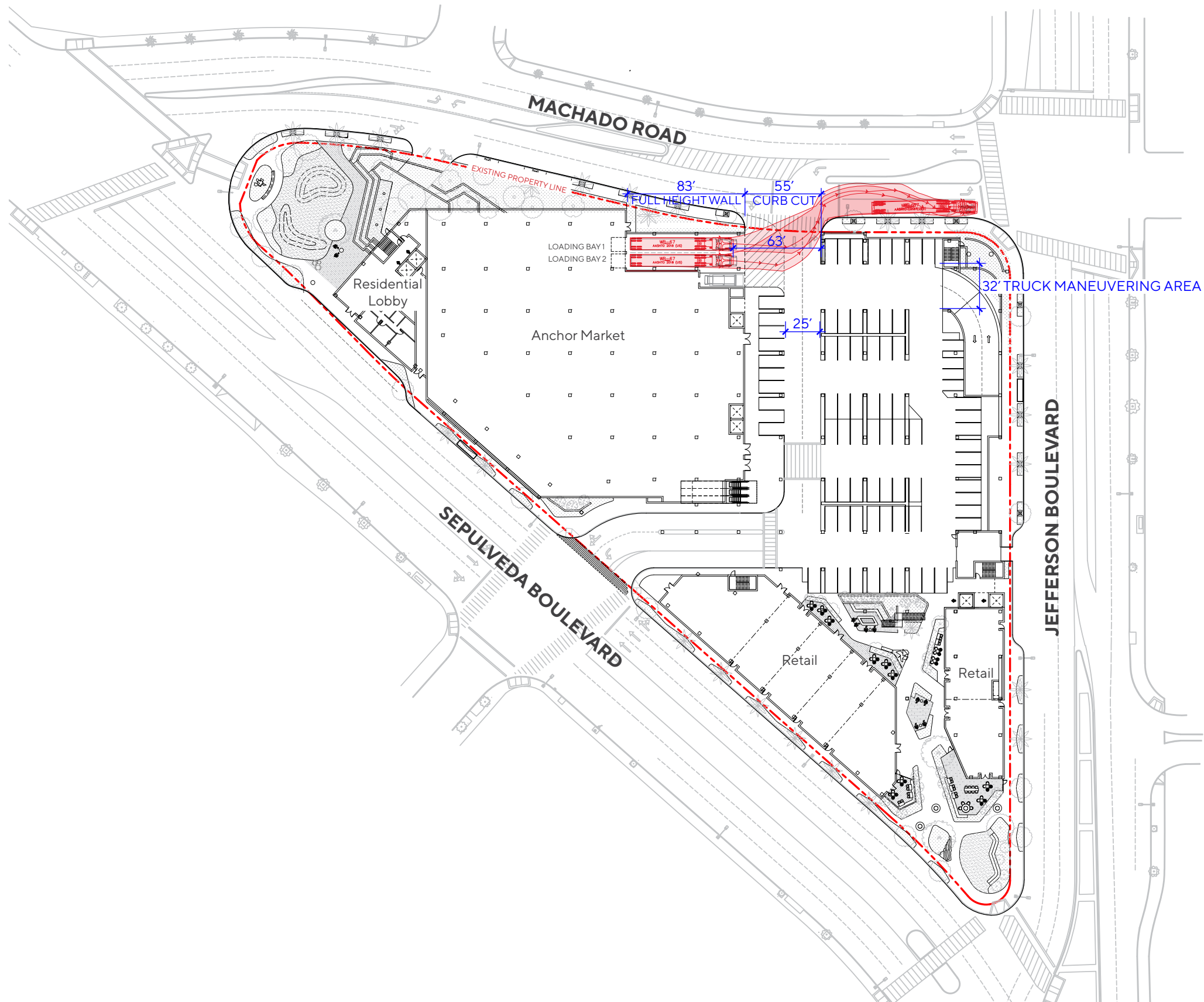
Commercial use deliveries would utilize a loading dock located at the commercial driveway on Machado Road. A turning movement analysis was performed using the largest typical truck that would be expected to utilize the loading dock. Inbound truck turning maneuvers are provided in **Figure 5** while outbound turning maneuvers are shown in **Figure 6**. It was determined that truck turning maneuvers would not conflict with existing and proposed roadway curbs, and no corrective actions were proposed. However, heavy freight trucks such as WB-67 trucks that would serve the grocery use traveling on northbound Sepulveda Boulevard would be required to utilize the middle through lane to turn right onto eastbound Machado Road to access the Project Site commercial driveway on Machado Road. Delivery hours could be restricted to off-peak periods to reduce the effects of wide turning trucks on City streets, typical to other grocery store deliveries in the area.



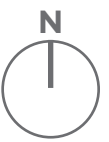


PROPOSED TRUCK ENTRY PATH
Figure 5





PROPOSED TRUCK EXIT PATH
Figure 6



Intersection Operations Analysis

The purpose of the intersection operations analysis is to assess the ability of the circulation system to accommodate the vehicular traffic generated by the Project and other related projects. This analysis includes intersection LOS, delay, and queuing analysis.

Analysis Scenarios

The Project is expected to be completed by the year 2024. The analysis of the opening year traffic forecast is based on projected conditions in 2024 both with and without the addition of the Project traffic. According to TSCG requirements, the following traffic scenarios have been developed and analyzed as part of this study:

- Existing (2019) Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations. Traffic counts were collected in 2019 and 2019 was chosen as the existing year because of more recent shifting traffic patterns due to the COVID-19 Pandemic.
- Existing (2019) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of Project-generated traffic.
- Opening Year (2024) Conditions – Opening year traffic conditions without the proposed Project were developed for the year 2024. The objective of this analysis is to project future traffic and operating conditions that could be expected to result from regional changes and related projects in the vicinity of the Project Site by 2024.
- Opening Year (2024) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under Opening Year conditions with the addition of project-generated traffic.
- Future Buildout Year (2045) Conditions – According to the Culver City Travel Demand Forecasting Model (TDFM), the future horizon year is expected to be 2045. Future “buildout” year traffic conditions without the proposed Project would be developed for the year 2045. The objective of this analysis is to predict future traffic and operating conditions that might be expected to result from regional changes and related projects in the vicinity of the Project Site by 2045.
- Future Buildout Year (2045) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under Future Buildout conditions with the addition of project-generated traffic.

Study Locations

The scope and selection of study intersections and residential street segments was developed in conjunction with City staff. 11 study intersections and 12 street segments were selected to be analyzed based on guidance from the TSCG and staff. The study intersections and street segments are illustrated in **Figure 7**.



The City had identified the following 11 intersections, all located in Culver City, to be analyzed as part of the scope of work for this study:

1. Sepulveda Boulevard & Culver Boulevard
2. Jefferson Boulevard & Overland Avenue
3. Sepulveda Boulevard & Machado Road
4. Jefferson Boulevard & Machado Road
5. Sepulveda Boulevard & Project Driveway/Janisann Avenue
6. Sepulveda Boulevard & Jefferson Boulevard (North)
7. Sepulveda Boulevard & Sawtelle Boulevard
8. Sepulveda Boulevard & Playa Street/Jefferson Boulevard (S)
9. Slauson Avenue & Jefferson Boulevard
10. Sepulveda Boulevard & Slauson Avenue
11. Sepulveda Boulevard & Braddock Drive

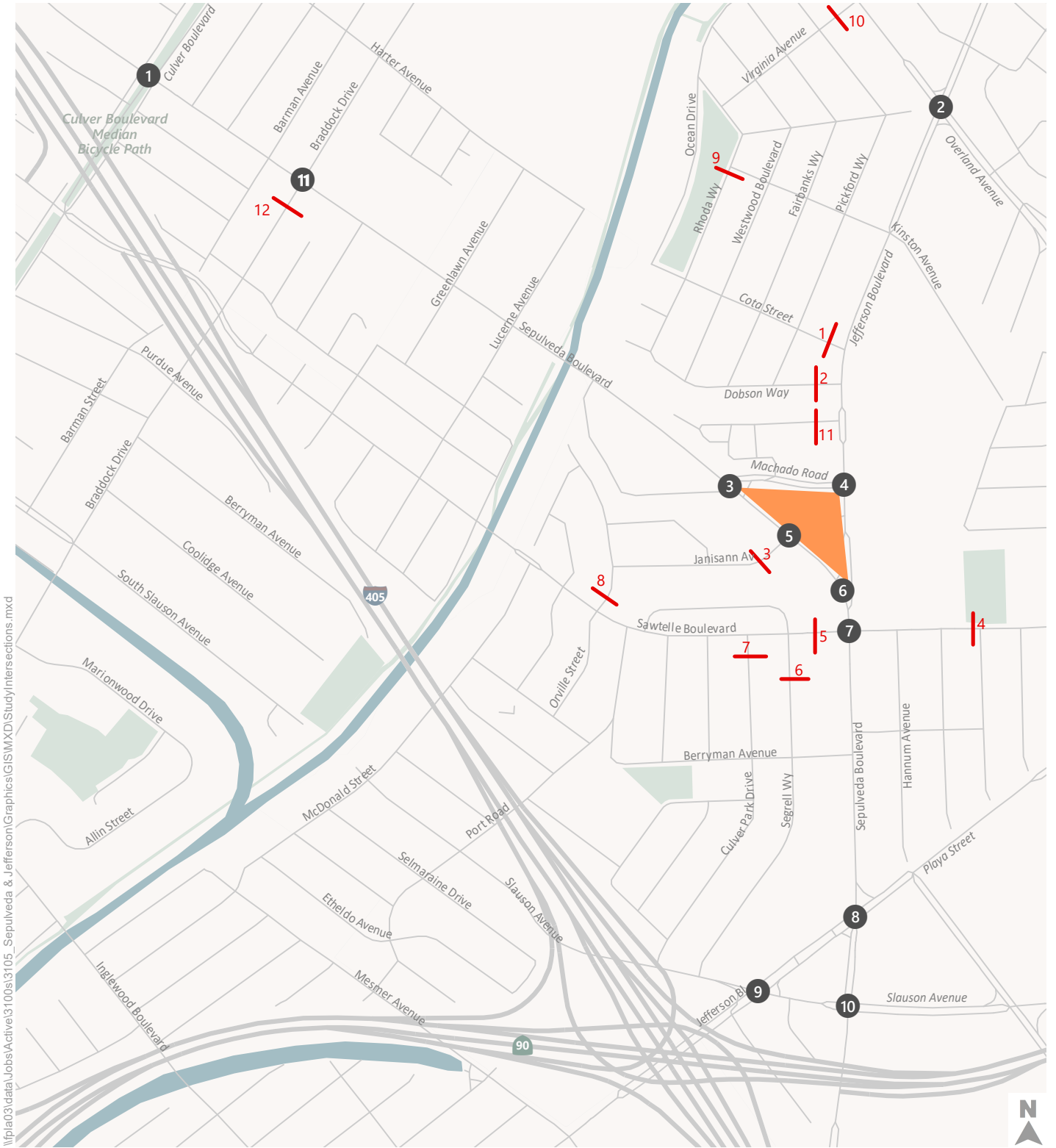
Additionally, the following 12 segments, also located in Culver City, had been identified to be analyzed for potential residential intrusion as part of the scope of work for this study (this analysis is presented later in this chapter):

1. Cota Street between Jefferson Boulevard and Pickford Way
2. Dobson Way between Jefferson Boulevard and Pickford Way
3. Janisann Avenue between Sepulveda Boulevard and Kalein Drive
4. Sawtelle Boulevard between Stevens Avenue and Malat Way
5. Sawtelle Boulevard between Sepulveda Boulevard and Blanco Way
6. Segrell Way between Sawtelle Boulevard and Berryman Avenue
7. Culver Park between Sawtelle Boulevard and Berryman Avenue
8. Orville Street between Sawtelle Boulevard and Janisann Avenue
9. Rhoda Way between Cota Street and Kinston Avenue
10. Virginia Avenue between Pickford Way and Overland Avenue
11. Ballona Lane west of Jefferson Boulevard
12. Braddock Drive between Sepulveda Boulevard and Huntley Avenue

Existing Traffic Volumes and Level of Service

This section presents the existing peak hour turning movement traffic volumes for each of the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume/capacity ratios and levels of service. Traffic counts are provided in **Appendix C**.





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- Project Site
- Study Intersections
- Study Segments



Figure 7

11111 Jefferson Project Study Area with Analyzed Intersections and Street Segments

Existing Traffic Volumes

Weekday morning and evening peak hour traffic counts were conducted at 11 analyzed intersections in May 2019, as were 24-hour counts at 10 of the 12 analyzed street segments. These counts occurred while all local schools and districts, including West LA College, UCLA, Culver City Unified School District, and Los Angeles Unified School District were in session. The existing weekday traffic volumes are illustrated in **Figure 8**.

Level of Service Methodology

LOS is a qualitative measure used to describe the condition of traffic flow on the street system, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. LOS definitions for signalized intersections are provided in **Table 2A** and **Table 2B**. Of the 11 study intersections, 10 are signalized, and one (Sepulveda Boulevard & Project Driveway/Janisann Avenue) is currently unsignalized.

Per the City's requirements, the Highway Capacity Manual, 6th Edition (HCM) methodology was used to determine the average intersection delay (seconds) and corresponding LOS for the study intersections. This analysis was performed using the Synchro software program. Synchro calculates vehicle delay and LOS based on procedures outlined in the HCM. The most current City signal timing information was used in the analysis of signalized study intersections.

Given congested conditions and atypical intersection geometric layouts near the Project Site, portions of the operational analysis surrounding the Project Site were conducted using the Synchro/SimTraffic microsimulation software to more accurately reflect the effect of downstream congestion, unique intersections operations, and closely spaced intersections. A microsimulation network was built to match the existing roadway lane configurations, including storage bay and taper lengths, and signal timing. Additional calibration was performed in the microsimulation network to reflect existing traffic conditions and driver behavior, based on numerous peak period site visits and observations during the Spring and Fall of 2019.

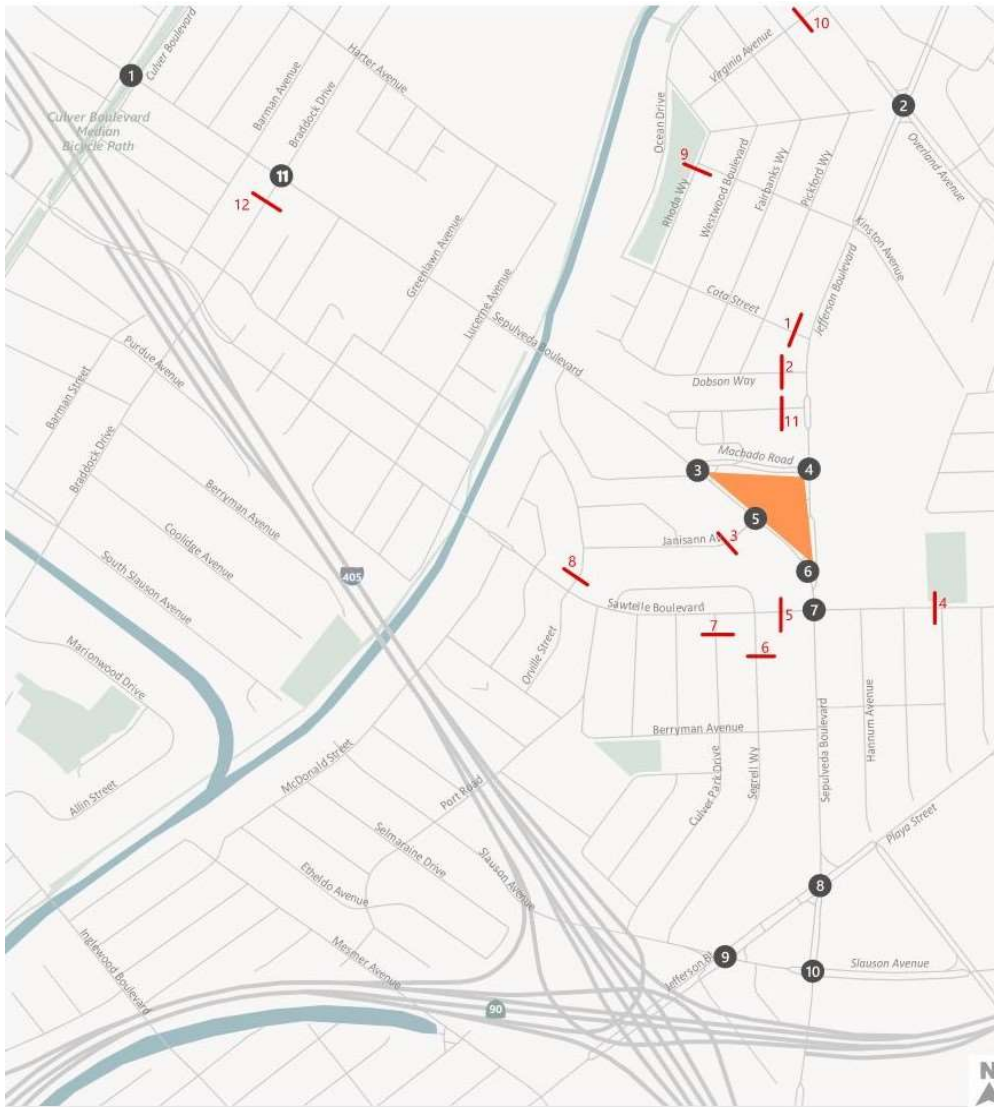
Existing Levels of Service

The traffic volumes presented in Figure 8 were analyzed using the methodologies described above to determine the current operating conditions at the 11 analyzed intersections. **Table 3** summarizes the Existing (2019) LOS analysis results. As shown in the table, the following two intersections are currently operating at LOS E or F:

1. Sepulveda Boulevard & Culver Boulevard (PM Peak Hour)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)

Detailed LOS calculation worksheets are presented in **Appendix D**.





| 1. Sepulveda Bl/Culver Bl | 2. Jefferson Bl/Overland Av | 3. Sepulveda Bl/Machado Rd |
|--|---|--|
| <p>1. Sepulveda Bl/Culver Bl</p> <p>Culver Bl</p> <p>170 (253) 437 (1,016) 74 (46)</p> <p>Sepulveda Bl</p> <p>77 (66) 1,023 (1,124) 131 (216)</p> <p>Sepulveda Bl</p> <p>241 (217) 1,095 (1,105) 54 (77)</p> <p>Sepulveda Bl</p> <p>221 (107) 1,087 (688) 236 (161)</p> | <p>2. Jefferson Bl/Overland Av</p> <p>Overland Av</p> <p>354 (179) 792 (567) 265 (356)</p> <p>Jefferson Bl</p> <p>395 (569) 820 (592) 51 (47)</p> <p>Jefferson Bl</p> <p>148 (140) 506 (757) 326 (261)</p> <p>Sepulveda Bl</p> <p>362 (290) 684 (848) 41 (42)</p> | <p>3. Sepulveda Bl/Machado Rd</p> <p>Machado Rd</p> <p>5 (4) 395 (1,125) 99 (227)</p> <p>Sepulveda Bl</p> <p>278 (224) 1 (3) 23 (28)</p> <p>Sepulveda Bl</p> <p>8 (0) 4 (5) 6 (1)</p> <p>Sepulveda Bl</p> <p>0 (4) 1,507 (762) 62 (65)</p> |
| 4. Jefferson Bl/Machado Rd | 5. Sepulveda Bl/Project Dwy/Janisann Av | 6. Sepulveda Bl/Jefferson Bl (N) |
| <p>4. Jefferson Bl/Machado Rd</p> <p>Machado Rd</p> <p>259 (175) 1,008 (742) 58 (77)</p> <p>Jefferson Bl</p> <p>26 (1) 21 (40) 12 (26)</p> <p>Machado Rd</p> <p>132 (184) 21 (92) 14 (16)</p> <p>Sepulveda Bl</p> <p>18 (16) 1,299 (1,071) 18 (42)</p> | <p>5. Sepulveda Bl/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> <p>15 (64) 396 (1,062) 2 (2)</p> <p>Sepulveda Bl</p> <p>3 (6) 1 (1) 4 (1)</p> <p>Project Dwy/Janisann Av</p> <p>38 (14) 1 (0) 6 (10)</p> <p>Sepulveda Bl</p> <p>12 (24) 1,527 (769) 11 (2)</p> | <p>6. Sepulveda Bl/Jefferson Bl (N)</p> <p>Jefferson Bl (N)</p> <p>3 (13) 454 (1,102)</p> <p>Sepulveda Bl</p> <p>10 (11) 1 (7) 1,010 (773)</p> <p>Sepulveda Bl</p> <p>1,380 (792) 1,362 (1,198)</p> |
| 7. Sepulveda Bl/Sawtelle Bl | 8. Sepulveda Bl/Playa St/Jefferson Bl (S) | 9. Slauson Av/Jefferson Bl |
| <p>7. Sepulveda Bl/Sawtelle Bl</p> <p>Sawtelle Bl</p> <p>198 (139) 1,170 (1,625) 64 (116)</p> <p>Sepulveda Bl</p> <p>178 (86) 174 (143) 83 (58)</p> <p>Sawtelle Bl</p> <p>164 (159) 176 (210) 68 (222)</p> <p>Sepulveda Bl</p> <p>162 (84) 2,322 (1,720) 40 (56)</p> | <p>8. Sepulveda Bl/Playa St/Jefferson Bl (S)</p> <p>Playa St/Jefferson Bl (S)</p> <p>520 (414) 751 (1,493) 61 (103)</p> <p>Sepulveda Bl</p> <p>545 (181) 242 (305) 109 (198)</p> <p>Playa St/Jefferson Bl (S)</p> <p>512 (533) 228 (336) 10 (30)</p> <p>Sepulveda Bl</p> <p>34 (64) 1,569 (1,169) 81 (135)</p> | <p>9. Slauson Av/Jefferson Bl</p> <p>Slauson Av</p> <p>98 (251) 89 (260) 22 (29)</p> <p>Jefferson Bl</p> <p>60 (30) 691 (743) 10 (44)</p> <p>Slauson Av</p> <p>136 (94) 748 (800) 155 (235)</p> <p>Jefferson Bl</p> <p>252 (332) 208 (92) 24 (18)</p> |
| 10. Sepulveda Bl/Slauson Av | 11. Sepulveda Bl/Braddock Dr | |
| <p>10. Sepulveda Bl/Slauson Av</p> <p>Slauson Av</p> <p>14 (22) 683 (1,383) 161 (262)</p> <p>Sepulveda Bl</p> <p>291 (216) 315 (248) 88 (175)</p> <p>Slauson Av</p> <p>27 (45) 164 (343) 63 (223)</p> <p>Sepulveda Bl</p> <p>98 (138) 1,385 (1,133) 32 (68)</p> | <p>11. Sepulveda Bl/Braddock Dr</p> <p>Braddock Dr</p> <p>92 (73) 428 (1,250) 29 (34)</p> <p>Sepulveda Bl</p> <p>37 (40) 182 (156) 53 (87)</p> <p>Braddock Dr</p> <p>62 (28) 202 (103) 50 (48)</p> <p>Sepulveda Bl</p> <p>58 (39) 1,414 (849) 170 (112)</p> | |

- Project Site
- Study Intersections
- Study Segments



Figure 8
Traffic Volumes & Lane Configurations
Existing (2019) - AM & PM Peak Hours

**TABLE 2A
INTERSECTION HCM LOS CRITERIA**

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

Source: *Highway Capacity Manual* (Transportation Research Board, 2016).

**TABLE 2B
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS**

| Level of Service | Average Control Delay (seconds/vehicle) |
|-------------------------|--|
| A | ≤ 10.0 |
| B | > 10.0 and ≤ 15.0 |
| C | > 15.0 and ≤ 25.0 |
| D | > 25.0 and ≤ 35.0 |
| E | > 35.0 and ≤ 50.0 |
| F | > 50.0 |

Source:

Highway Capacity Manual, Transportation Research Board, 2010.

**TABLE 3
EXISTING (2019) CONDITIONS INTERSECTION LEVELS OF SERVICE**

| NO. | INTERSECTION | PEAK HOUR | EXISTING | |
|-----|---|-----------|-----------|-----|
| | | | DELAY (S) | LOS |
| 1 | Sepulveda Bl & Culver Bl | AM | 46.3 | D |
| | | PM | 45.8 | E |
| 2 | Jefferson Bl & Overland Av | AM | 44.5 | D |
| | | PM | 42.4 | D |
| 3 | Sepulveda Bl & Machado Rd [b] | AM | 20.7 | C |
| | | PM | 24.4 | C |
| 4 | Jefferson Bl & Machado Rd [b] | AM | 26.4 | C |
| | | PM | 20.2 | C |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [b,c] | AM | 1.5 | A |
| | | PM | 17.3 | C |
| 6 | Sepulveda Bl & Jefferson Bl (N) [b] | AM | 26.9 | C |
| | | PM | 43.1 | D |
| 7 | Sepulveda Bl & Sawtelle Bl [b] | AM | 68.4 | E |
| | | PM | 64.6 | E |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | AM | 33.3 | C |
| | | PM | 34.5 | C |
| 9 | Slauson Av & Jefferson Bl | AM | 24.5 | C |
| | | PM | 27.5 | C |
| 10 | Sepulveda Bl & Slauson Av | AM | 47.0 | D |
| | | PM | 38.6 | D |
| 11 | Sepulveda Bl & Braddock Dr | AM | 22.5 | C |
| | | PM | 15.3 | B |

[a] Intersections were analyzed using HCM methodologies per Culver City of Transportation Study Guidelines.

[b] Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis based on HCM methodologies.

[c] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

Project Traffic

The development of trip generation estimates for the Project was a 3-step process: trip generation, trip distribution, and traffic assignment.

Project Traffic Generation

As indicated previously, the Project would involve the demolition of approximately 27,225 sf of existing post office, 6,064 sf of existing restaurant space, and 1,722 sf of existing auto service space and its replacement with approximately 230 housing units, 11,450 sf of new office space, 10,600 sf of new restaurant space, 1,950 sf of new fitness gym space, 38,600 sf of new grocery space, and 3,900 sf of retail space. **Table 4** presents the trip rates used to estimate trip generation for the Project. In order to calculate existing trip generation, driveway counts were taken at all existing site driveways in May 2019. The ITE High-Turnover (Sit-Down) Restaurant rate (Land Use #932) was used for proposed sit-down restaurants, the ITE Fast Food rate (Land Use #933) was used for the fast food restaurants, and the ITE Fast Casual Restaurant rate (Land Use #930) was used for proposed fast casual restaurants. The ITE Health/Fitness Club rate (Land Use #492) was used for the proposed gym, and the ITE General Office Building rate (Land Use #710) was used for the proposed office use. The ITE Supermarket rate (Land Use #850) was used for the proposed supermarket, and the SANDAG (San Diego region) Specialty Retail rate (Land Use #820) was used for the proposed retail. The ITE Multifamily Housing (Mid-Rise) rate (Land Use #221) was used for the proposed apartments. Because the Project is proposed to be mixed-use, a 10% internal capture trip credit rate was used, which represents the percent of trips that begin and end within the site between the different uses. Based on the presence of multiple transit routes near the site and the close proximity to destinations, a 5% walking, biking, and transit credit was taken for all land uses. Finally, a 20% pass-by credit was added for all retail, restaurant, grocery, and fitness uses to account for patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion. These credits are based on guidance from the TSCG.

After including the credits for existing uses, internal capture, and non-automotive travel, the Project is estimated to generate 142 trips (67 inbound/75 outbound) in the AM peak hour and 274 trips (157 inbound/117 trips outbound) in the PM peak hour.

Project Traffic Distribution

The geographic distribution of the traffic generated by the proposed Project depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed development are drawn, and the location of the Project in relation to the surrounding street system. The general distribution pattern was developed in consultation with City of Culver City staff. The distribution of commercial patron traffic is illustrated in **Figure 9**, and the distribution of residential traffic is illustrated in **Figure 10**. Project traffic would enter the site from two driveways on Machado Road and one on Sepulveda Boulevard.



Project Traffic Assignment

The traffic expected to be generated by the proposed Project was assigned to the street network using the distribution pattern shown in Figures 9 and 10. **Figure 11** illustrates the assignment of this traffic at each of the study intersections.

Existing Plus Project Volumes and Level of Service

The estimated Project traffic was added to the existing traffic volumes to estimate Existing plus Project traffic volumes. **Figure 12** shows turning movement traffic volumes for the Existing plus Project scenario.

Existing plus Project traffic volumes, presented in Figure 12, were analyzed to determine the intersection LOS and delay for each intersection. **Table 5** summarizes the Existing plus Project LOS. LOS E or F are projected at two of the 11 study intersections during at least one of the analyzed peak hours, including:

1. Sepulveda Boulevard & Culver Boulevard (AM/PM Peak Hours)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)

As indicated in the table, with the addition of Project traffic under the Existing Plus Project scenario, overall intersection delay is projected to increase by over 10 seconds at the intersection of Sepulveda Boulevard & Sawtelle Boulevard during the PM peak hour, which is already operating at LOS E or F.

Detailed LOS calculation worksheets are presented in **Appendix D**.



**TABLE 4
11111 JEFFERSON PROJECT
ESTIMATED PROJECT TRIP GENERATION**

| Land Use | ITE Land Use Code | Size | Trip Generation Rates [a] | | | | | | Estimated Trip Generation | | | | | |
|--|-------------------|------------|---------------------------|------------------|------------------|--------------------|------------------|------------------|---------------------------|------------------|--------------------|--------------------|--------------------|---------------------|
| | | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour Trips | | | PM Peak Hour Trips | | |
| | | | Rate | In% | Out% | Rate | In% | Out% | In | Out | Total | In | Out | Total |
| PROPOSED PROJECT | | | | | | | | | | | | | | |
| Multifamily Housing (Mid-Rise) <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Net External Vehicle Trips | 221 | 230 DU | 0.36 10% 5% | 26% 10% 5% | 74% 10% 5% | 0.44 10% 5% | 61% 10% 5% | 39% 10% 5% | 22 (2) (1) | 61 (6) (3) | 83 (8) (4) | 62 (6) (3) | 39 (4) (2) | 101 (10) (5) |
| High-Turnover (Sit-Down) Restaurant <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | 932 | 3.30 ksf | 9.94 10% 5% | 55% 10% 5% | 45% 10% 5% | 9.77 10% 5% | 62% 10% 5% | 38% 10% 5% | 18 (2) (1) | 15 (2) (1) | 33 (4) (2) | 20 (2) (1) | 12 (1) (1) | 32 (3) (2) |
| Fast Casual Restaurant <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | 930 | 4.90 ksf | 2.07 10% 5% | 67% 10% 5% | 33% 10% 5% | 14.13 10% 5% | 55% 10% 5% | 45% 10% 5% | 7 (1) 0 | 3 (1) 0 | 10 (1) (1) | 38 (4) (3) | 31 (3) (3) | 69 (7) (3) |
| Fast Food <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | 933 | 2.40 ksf | 25.1 10% 5% | 60% 10% 5% | 40% 10% 5% | 28.34 10% 5% | 50% 10% 5% | 50% 10% 5% | 36 (4) (2) | 24 (2) (1) | 60 (6) (3) | 34 (3) (2) | 34 (3) (2) | 68 (6) (4) |
| Gym/Fitness Club <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | 492 | 1.95 ksf | 1.31 10% 5% | 51% 10% 5% | 49% 10% 5% | 3.45 10% 5% | 57% 10% 5% | 43% 10% 5% | 2 0 0 | 1 0 0 | 3 0 0 | 4 0 0 | 3 0 0 | 7 0 0 |
| Office <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Net External Vehicle Trips | 710 | 11.45 ksf | 1.16 10% 5% | 86% 10% 5% | 14% 10% 5% | 1.15 10% 5% | 16% 10% 5% | 84% 10% 5% | 11 (1) (1) | 2 0 0 | 13 (1) (1) | 2 0 0 | 11 (1) (1) | 13 (1) (1) |
| Supermarket <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | 850 | 38.60 ksf | 3.82 10% 5% | 60% 10% 5% | 40% 10% 5% | 9.24 10% 5% | 51% 10% 5% | 49% 10% 5% | 88 (9) (4) | 59 (6) (3) | 147 (15) (7) | 182 (18) (8) | 175 (18) (8) | 357 (36) (16) |
| Specialty Retail <i>Less: Internal capture [b]</i> <i>Less: Walk/Bike/Transit Adjustment [c]</i> Total Driveway Trips <i>Less: Pass-by Adjustment [d]</i> Net External Vehicle Trips | [f] | 3.90 ksf | 1.2 10% 5% | 60% 10% 5% | 40% 10% 5% | 3.6 10% 5% | 50% 10% 5% | 50% 10% 5% | 3 0 0 | 2 0 0 | 5 0 0 | 7 (1) (1) | 7 (1) (1) | 14 (2) (2) |
| TOTAL DRIVEWAY TRIPS | | | | | | | | | 159 | 143 | 302 | 299 | 266 | 565 |
| TOTAL PROJECT EXTERNAL VEHICLE TRIPS | | | | | | | | | 134 | 127 | 261 | 253 | 224 | 477 |
| EXISTING USE ADJUSTMENT | | | | | | | | | | | | | | |
| High-Turnover (Sit-Down) Restaurant | - | 6.064 ksf | - | - | - | - | - | - | - | - | - | - | - | - |
| Automotive Service Center | - | 1.722 ksf | - | - | - | - | - | - | - | - | - | - | - | - |
| Post Office | - | 27.225 ksf | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL EXISTING DRIVEWAY TRIPS [e] | | | | | | | | | 83 | 64 | 147 | 120 | 133 | 253 |
| <i>Less: Pass-by Adjustment [d]</i> | | | 20% | | | 20% | | | (16) | (12) | (28) | (24) | (26) | (50) |
| TOTAL EXISTING TRIPS [e] | | | | | | | | | 67 | 52 | 119 | 96 | 107 | 203 |
| NET INCREMENTAL EXTERNAL TRIPS | | | | | | | | | 67 | 75 | 142 | 157 | 117 | 274 |

Notes:

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

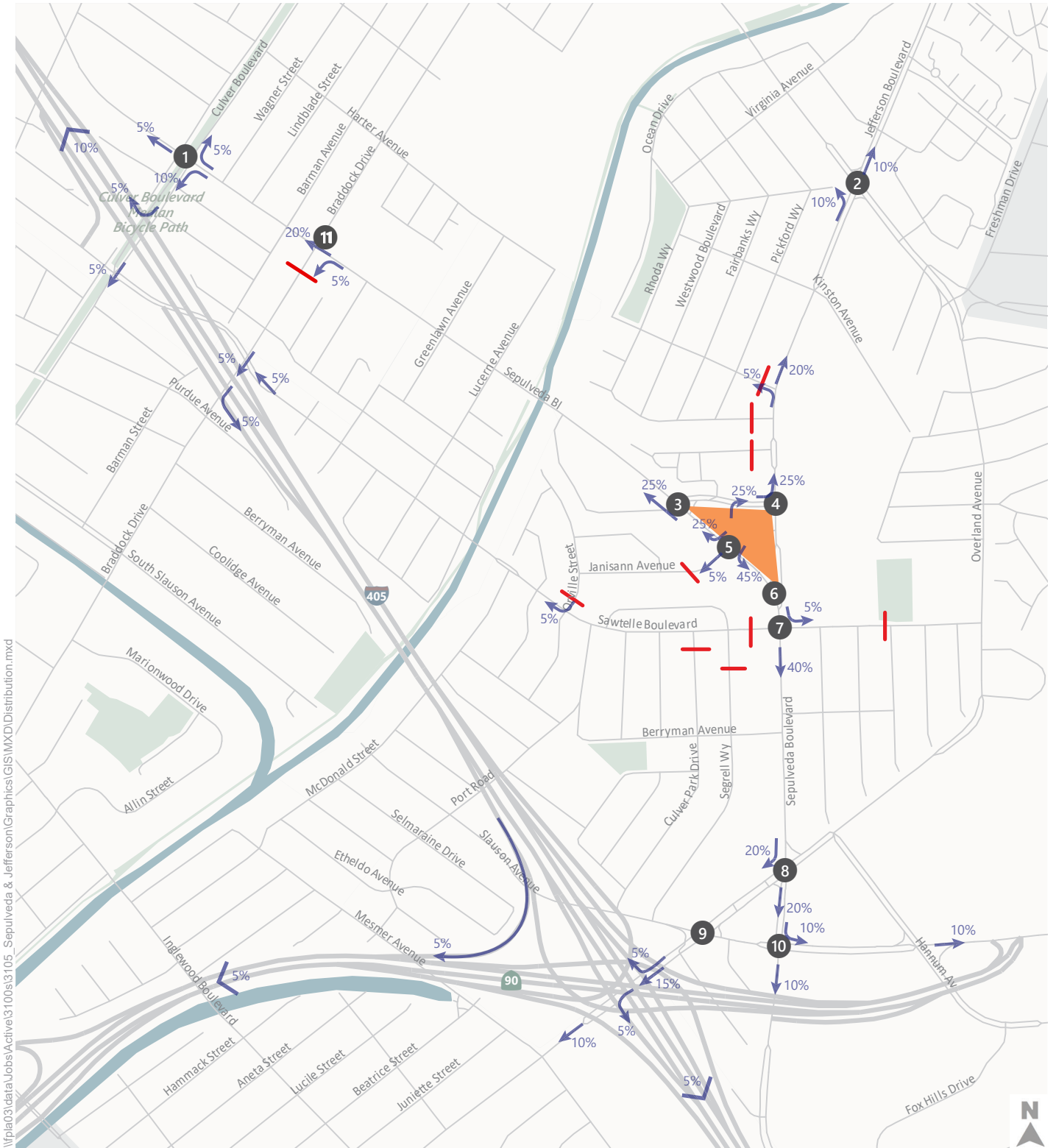
[b] According to City of Culver City Transportation Study Criteria & Guidelines, a 10% trip credit may be allowed for Internal Trip Capture for mixed-use developments.

[c] A 5% Walk/Bike/Transit Credit was used based on the site's proximity to residential areas and connection to local transit lines.

[d] According to City of Culver City Transportation Study Criteria & Guidelines, the average ITE rates for Pass-by trips for convenience-type land uses can be applied, up to a maximum of 25%.

[e] 24-hour counts were taken on a typical business day at existing driveways at the proposed Project site in lieu of using estimated existing trips from ITE *Trip Generation*.

[f] ITE 10th Edition trip generation rates are not available for small sized retail spaces, such as boutique stores or specialty retail stores. Trip generation rates were taken from SANDAG's (San Diego) *Not so Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, 2002*.



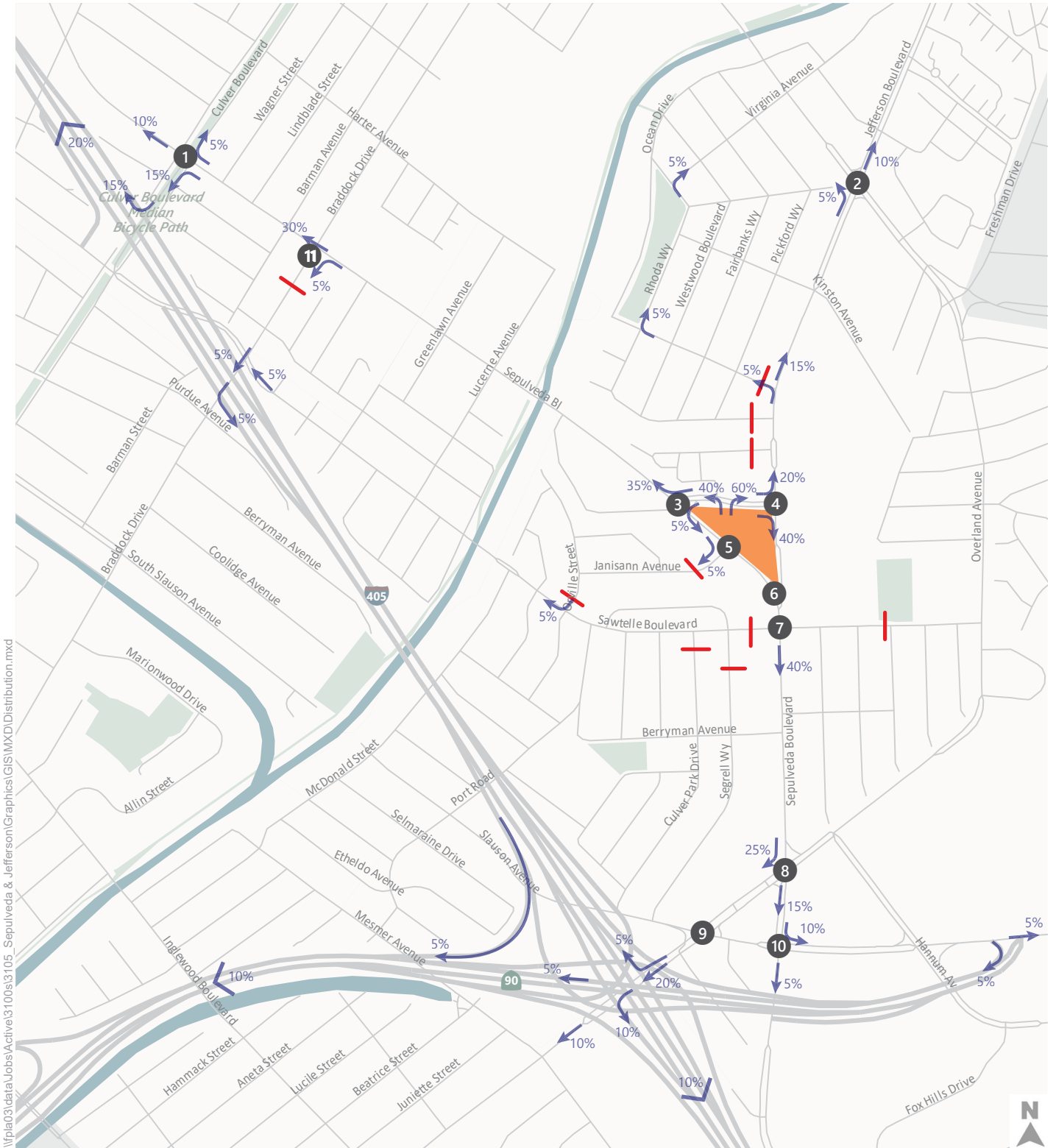
W:\pao3\data\Jobs\Active\3100s\3105_Sepulveda & Jefferson\Graphics\GIS\MXD\Distribution.mxd

- Project Site
- Study Intersections
- Study Segments

*Overall Distribution: 20% Freeways, 80% Local Streets



Figure 9
11111 Jefferson Project
Commercial Trip Distribution



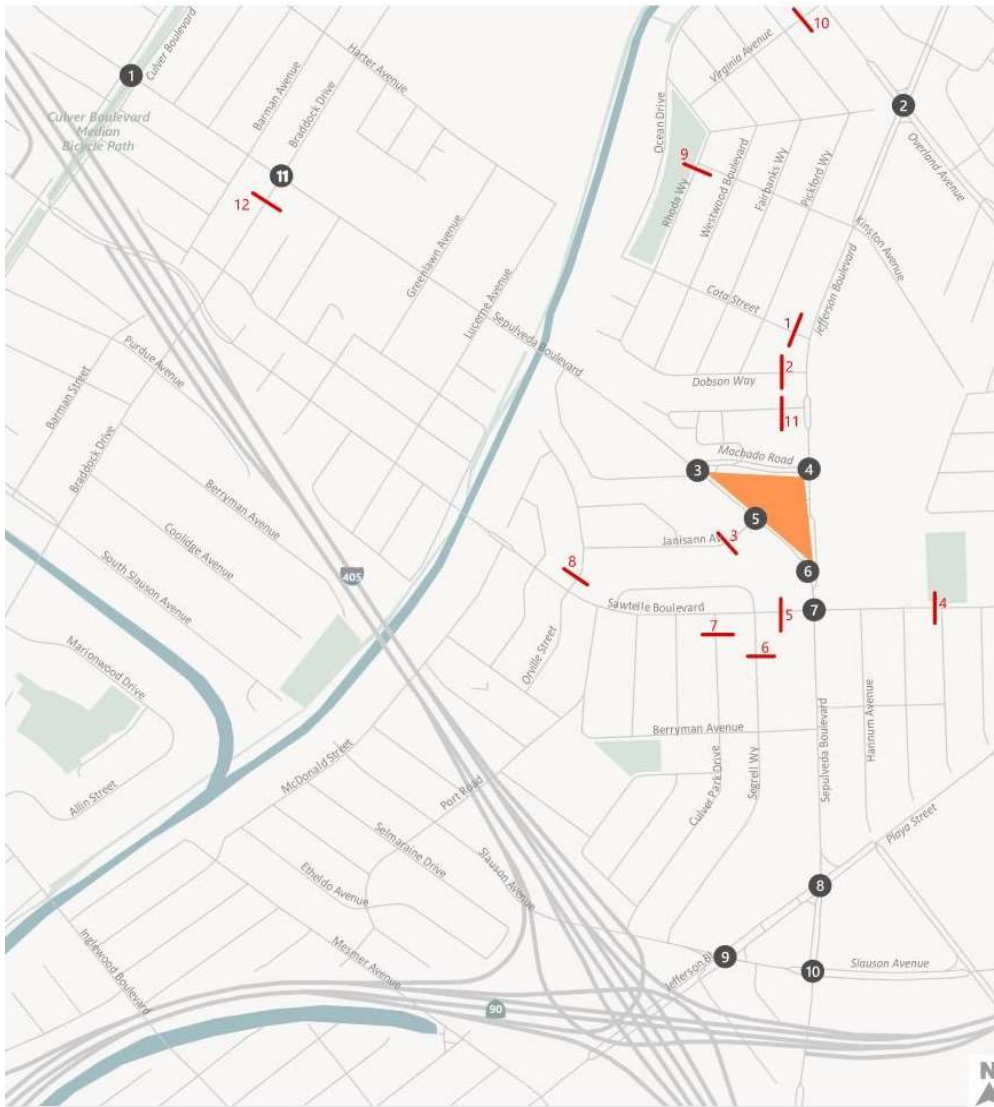
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- Project Site
- Study Intersections
- Study Segments

*Overall Distribution: 40% Freeways, 60% Local Streets



Figure 10
 11111 Jefferson Project
 Residential Trip Distribution

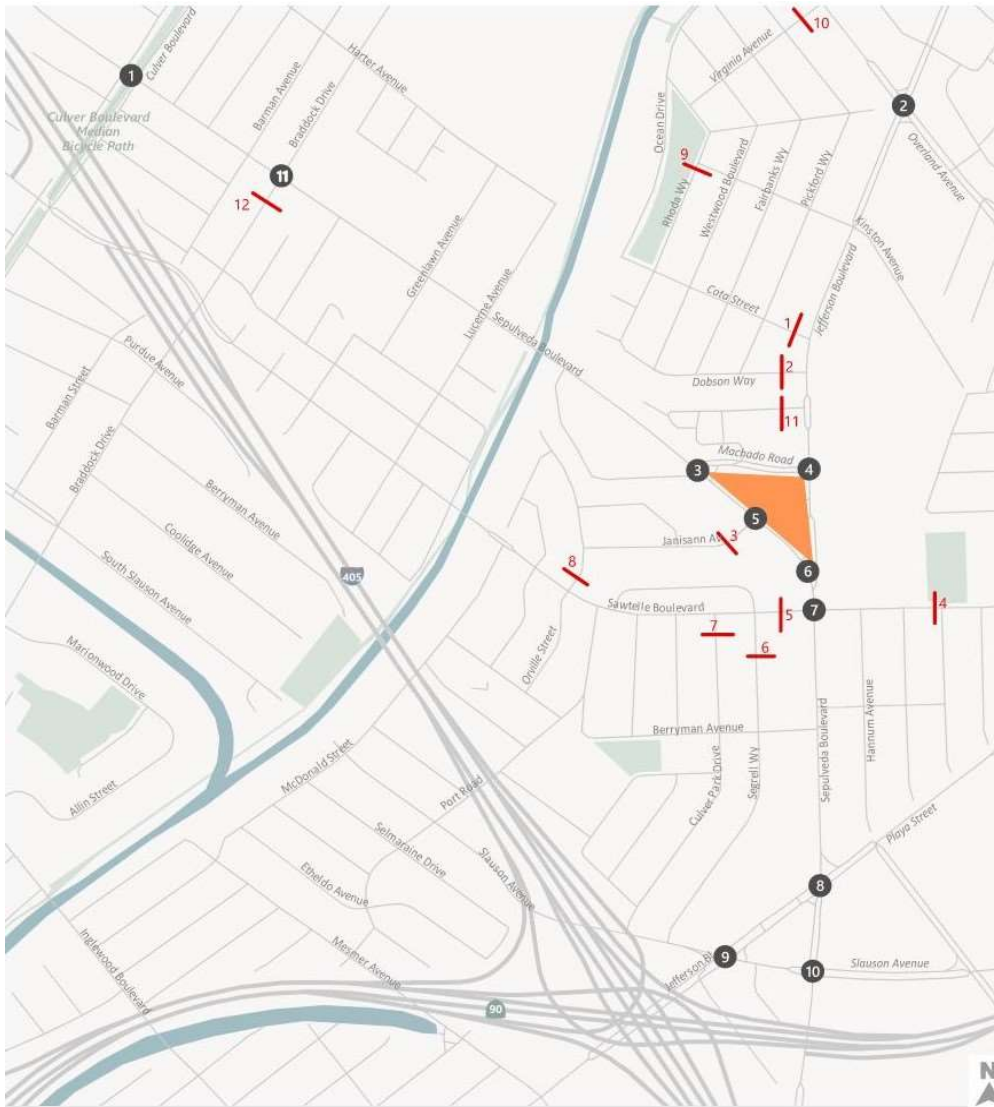


- Project Site
- Study Intersections
- Study Segments



| 1. Sepulveda BI/Culver BI | 2. Jefferson BI/Overland Av | 3. Sepulveda BI/Machado Rd |
|-----------------------------|---|----------------------------------|
| | | |
| 4. Jefferson BI/Machado Rd | 5. Sepulveda BI/Project Dwy/Janisann Av | 6. Sepulveda BI/Jefferson BI (N) |
| | | |
| 7. Sepulveda BI/Sawtelle BI | 8. Sepulveda BI/Playa St/Jefferson BI (S) | 9. Slauson Av/Jefferson BI |
| | | |
| 10. Sepulveda BI/Slauson Av | 11. Sepulveda BI/Braddock Dr | |
| | | |

Figure 11
Traffic Volumes & Lane Configurations
Project Only Volumes - AM & PM Peak Hours



- Project Site
- Study Intersections
- Study Segments



| | | |
|--|--|--|
| <p>1. Sepulveda BI/Culver BI</p> <p>Culver BI</p> <p>170 (263) 441 (1,027) 74 (46)</p> <p>Sepulveda BI</p> <p>77 (66) 1,023 (1,124) 134 (224)</p> <p>241 (217) 1,095 (1,105) 62 (95)</p> <p>231 (120) 1,093 (696) 240 (167)</p> | <p>2. Jefferson BI/Overland Av</p> <p>Overland Av</p> <p>354 (179) 795 (683) 265 (356)</p> <p>Jefferson BI</p> <p>395 (569) 820 (592) 51 (47)</p> <p>148 (140) 506 (757) 334 (280)</p> <p>370 (305) 692 (860) 41 (42)</p> | <p>3. Sepulveda BI/Machado Rd</p> <p>Machado Rd</p> <p>5 (4) 405 (1,146) 105 (243)</p> <p>Sepulveda BI</p> <p>296 (236) 1 (3) 26 (30)</p> <p>8 (0) 4 (5) 6 (1)</p> <p>0 (4) 1,513 (763) 64 (70)</p> |
| <p>4. Jefferson BI/Machado Rd</p> <p>Machado Rd</p> <p>275 (212) 1,008 (742) 58 (77)</p> <p>Jefferson BI</p> <p>26 (1) 21 (40) 12 (26)</p> <p>148 (212) 21 (92) 35 (29)</p> <p>26 (37) 1,299 (1,071) 18 (42)</p> | <p>5. Sepulveda BI/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> <p>17 (65) 397 (1,063) 12 (23)</p> <p>Sepulveda BI</p> <p>9 (27) 2 (4) 15 (40)</p> <p>39 (16) 2 (3) 6 (10)</p> <p>12 (24) 1,528 (773) 96 (56)</p> | <p>6. Sepulveda BI/Jefferson BI (N)</p> <p>Jefferson BI (N)</p> <p>3 (13) 466 (1,142)</p> <p>Sepulveda BI</p> <p>10 (11) 1 (7) 1,031 (786)</p> <p>1,406 (650) 1,370 (1,219)</p> |
| <p>7. Sepulveda BI/Sawtelle BI</p> <p>Sawtelle BI</p> <p>201 (141) 1,200 (1,672) 65 (120)</p> <p>Sepulveda BI</p> <p>180 (91) 174 (143) 83 (58)</p> <p>165 (162) 176 (210) 68 (222)</p> <p>162 (84) 2,352 (1,791) 40 (56)</p> | <p>8. Sepulveda BI/Playa St/Jefferson BI (S)</p> <p>Playa St/Jefferson BI (S)</p> <p>538 (439) 763 (1,515) 61 (103)</p> <p>Sepulveda BI</p> <p>545 (181) 242 (305) 109 (198)</p> <p>526 (567) 228 (336) 10 (30)</p> <p>34 (54) 1,585 (1,206) 81 (135)</p> | <p>9. Slauson Av/Jefferson BI</p> <p>Slauson Av</p> <p>98 (251) 89 (260) 22 (29)</p> <p>Jefferson BI</p> <p>60 (30) 709 (768) 10 (44)</p> <p>136 (94) 762 (834) 155 (235)</p> <p>252 (332) 208 (92) 24 (18)</p> |
| <p>10. Sepulveda BI/Slauson Av</p> <p>Slauson Av</p> <p>14 (22) 688 (1,393) 169 (274)</p> <p>Sepulveda BI</p> <p>301 (240) 315 (248) 88 (175)</p> <p>27 (45) 164 (343) 63 (223)</p> <p>98 (138) 1,391 (1,146) 32 (68)</p> | <p>11. Sepulveda BI/Braddock Dr</p> <p>Braddock Dr</p> <p>92 (73) 443 (1,287) 29 (34)</p> <p>Sepulveda BI</p> <p>37 (40) 182 (156) 53 (87)</p> <p>62 (28) 202 (103) 50 (48)</p> <p>62 (45) 1,434 (876) 170 (112)</p> | |

Figure 12
Traffic Volumes & Lane Configurations
Existing + Project - AM & PM Peak Hours

**TABLE 5
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND DELAY**

| NO. | INTERSECTION | PEAK HOUR | EXISTING (2019) | | EXISTING + PROJECT | | DELAY INCREASE |
|-----|---|-----------|-----------------|-----|--------------------|-----|----------------|
| | | | DELAY (S.) | LOS | DELAY (S.) | LOS | |
| 1 | Sepulveda Bl & Culver Bl | AM | 46.3 | D | 47.7 | E | 1.4 |
| | | PM | 45.8 | E | 45.5 | E | -0.3 |
| 2 | Jefferson Bl & Overland Av | AM | 44.5 | D | 44.8 | D | 0.3 |
| | | PM | 42.4 | D | 42.7 | D | 0.3 |
| 3 | Sepulveda Bl & Machado Rd [b] | AM | 20.7 | C | 13.8 | B | -6.9 |
| | | PM | 24.4 | C | 30.6 | C | 6.2 |
| 4 | Jefferson Bl & Machado Rd [b] | AM | 26.4 | C | 32.4 | C | 6.0 |
| | | PM | 20.2 | C | 23.2 | C | 3.0 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [b,c] | AM | 1.5 | A | 6.4 | A | 4.9 |
| | | PM | 17.3 | C | 33.5 | C | 16.2 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [b] | AM | 26.9 | C | 32.4 | C | 5.5 |
| | | PM | 43.1 | D | 49.7 | D | 6.6 |
| 7 | Sepulveda Bl & Sawtelle Bl [b] | AM | 68.4 | E | 70.8 | E | 2.4 |
| | | PM | 64.6 | E | 76.4 | E | 11.8 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | AM | 33.3 | C | 33.8 | C | 0.5 |
| | | PM | 34.5 | C | 35.5 | D | 1.0 |
| 9 | Slauson Av & Jefferson Bl | AM | 24.5 | C | 24.6 | C | 0.1 |
| | | PM | 27.5 | C | 27.7 | C | 0.2 |
| 10 | Sepulveda Bl & Slauson Av | AM | 47.0 | D | 46.9 | D | -0.1 |
| | | PM | 38.6 | D | 47.8 | D | 9.2 |
| 11 | Sepulveda Bl & Braddock Dr | AM | 22.5 | C | 22.5 | C | 0.0 |
| | | PM | 15.3 | B | 15.3 | B | 0.0 |

[a] Intersections were analyzed using HCM methodologies per Culver City of Transportation Study Guidelines.

Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis [b] based on HCM methodologies.

[c] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

Opening Year (2024) Volumes and Level of Service

In order to evaluate the potential effects of the proposed Project on the local street system, it was necessary to develop estimates of Opening Year traffic conditions both with and without the Project. Opening Year traffic volumes without the Project are first estimated, representing the Opening Year conditions. The traffic generated by the proposed Project is then estimated and separately assigned to the surrounding street system. The sum of the Opening Year and Project-generated traffic represents Opening Year plus Project traffic conditions.

The Opening Year traffic projections reflect changes in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects in, or in the vicinity of, the study area. These factors are described below.

Areawide Traffic Growth

To provide a conservative short-term analysis, traffic volumes in the vicinity of the study area were projected to increase at a rate of about 1.0% per year to the Year 2024. With the assumed completion date of 2024, the existing baseline 2019 traffic volumes were adjusted upward by a factor of 1.0% for five years to reflect areawide regional growth up to Year 2024. This percentage is considered a conservative short-term projection.

Related Projects Traffic Generation

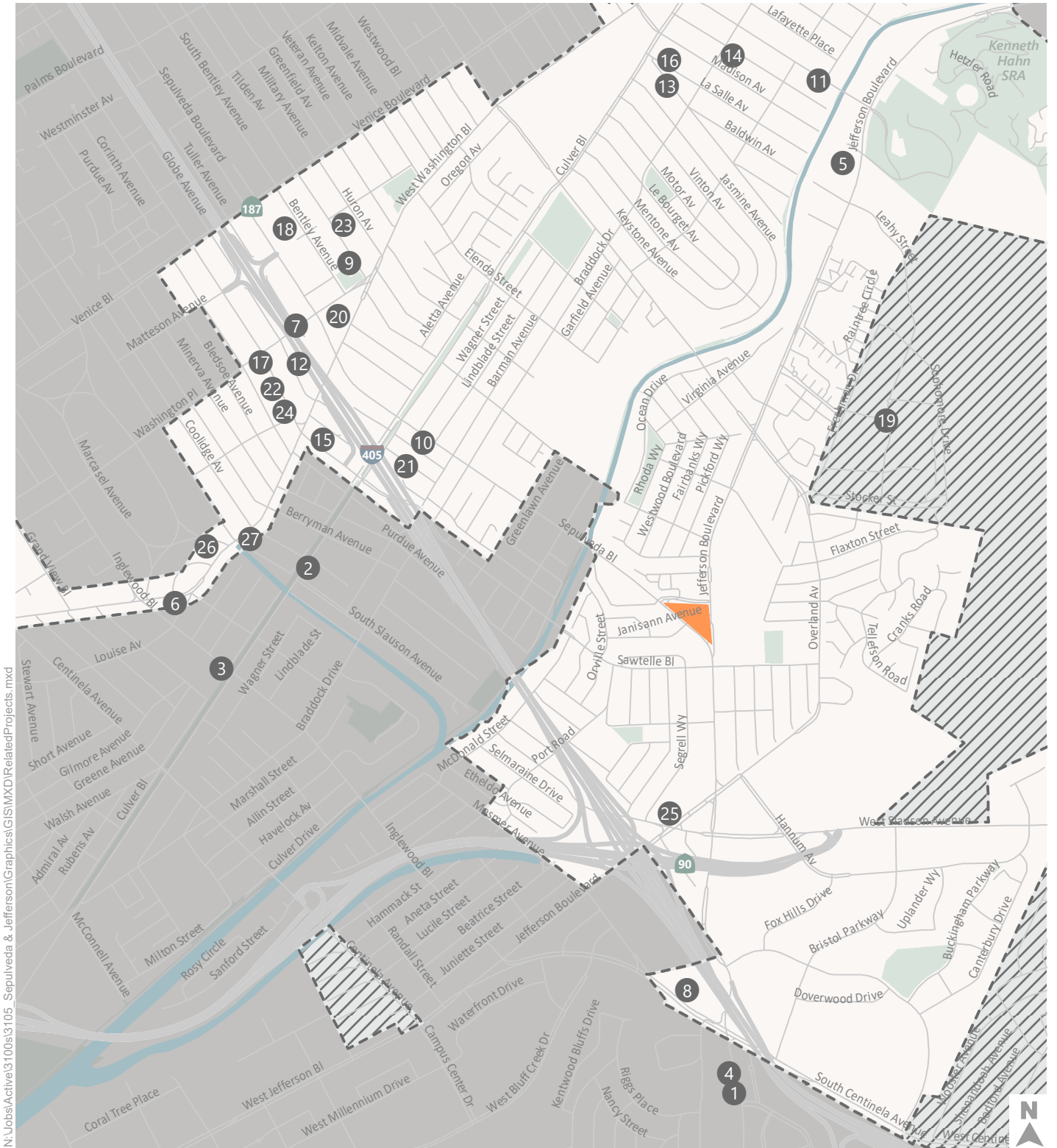
The second major source of traffic growth in the study area is from specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed Project Site prior to Project opening. Data describing cumulative projects in the area was developed based on information obtained from Culver City, City of Los Angeles, and Los Angeles County. A total of 27 related projects (21 in Culver City, six in City of Los Angeles) were identified in the study area and are estimated to generate 1,051 trips during the morning peak hour and 1,104 trips during the evening peak hour, as summarized in **Table 6**. It was assumed that all 27 related projects would be completed and occupied by the opening year of this Project. Trip generation estimates for each of the cumulative projects were obtained from Culver City and the Los Angeles Department of Transportation or developed according to ITE (10th Edition) rates. **Figure 13** displays the locations of the related projects. **Figure 14** illustrates the assignment of this traffic at each of the study intersections. Related projects traffic was distributed across study intersections using assumptions found in their respective transportation studies or the travel demand model.



**TABLE 6
11111 JEFFERSON PROJECT
RELATED PROJECTS**

| No. | Project Location | City | Land Use | Size | Trip Generation | | | | | | |
|---------------|---------------------------------------|-------------|----------------------|----------------|-----------------|------------|------------|--------------|------------|------------|--------------|
| | | | | | Daily | AM | | | PM | | |
| | | | | | IN | OUT | TOTAL | IN | OUT | TOTAL | |
| 1 | 6733 S Sepulveda Bl | Los Angeles | Apartments | 176 du | 628 | -31 | 55 | 24 | 52 | -40 | 12 |
| 2 | 11612 W Culver Bl | Los Angeles | Apartments | 49 du | 447 | 12 | 26 | 38 | 28 | 15 | 43 |
| | | | Restaurant | 1.75 ksf | | | | | | | |
| | | | Retail | 2.05 ksf | | | | | | | |
| 3 | 4471 Inglewood Bl | Los Angeles | School | 800 Students | 275 | 55 | 45 | 100 | 31 | 36 | 67 |
| 4 | 6711 S Sepulveda Bl | Los Angeles | Apartments | 180 du | 1,063 | 17 | 70 | 87 | 73 | 37 | 110 |
| 5 | 9919 Jefferson Bl | Culver City | Office | 62.56 ksf | 609 | 62 | 10 | 73 | 12 | 60 | 72 |
| 6 | 11924 Washington Bl | Los Angeles | Apartments | 98 du | 1,378 | 36 | 47 | 83 | 70 | 53 | 123 |
| | | | Retail | 11.25 ksf | | | | | | | |
| | | | Restaurant | 3.75 ksf | | | | | | | |
| 7 | 11259 Washington Bl | Culver City | Office | 4.02 ksf | 39 | 4 | 1 | 5 | 1 | 4 | 5 |
| 8 | 6161 Centinela Bl | Culver City | Office | 281.19 ksf | 2,739 | 281 | 46 | 327 | 52 | 272 | 324 |
| 9 | 3961 Tilden Av | Culver City | Apartments | 5 du | 37 | 1 | 2 | 3 | 2 | 1 | 3 |
| 10 | 4333 Sepulveda Bl | Culver City | Retail | 2.97 ksf | 112 | 2 | 1 | 3 | 5 | 6 | 11 |
| 11 | 4241 Duquesne Av | Culver City | Apartments | 2 du | 15 | 0 | 1 | 1 | 1 | 0 | 1 |
| 12 | 4044 Globe Av | Culver City | Single Family Houses | 10 du | 94 | 1 | 6 | 7 | 6 | 4 | 10 |
| 13 | 4055 Jackson Av | Culver City | Apartments | 9 du | 66 | 1 | 3 | 4 | 3 | 2 | 5 |
| 14 | 4115 Lincoln Av | Culver City | Apartments | 2 du | 15 | 0 | 1 | 1 | 1 | 0 | 1 |
| 15 | 4234 Sawtelle Bl | Culver City | Apartments | 3 du | 22 | 0 | 1 | 1 | 1 | 1 | 2 |
| 16 | 4034 La Salle Av | Culver City | Apartments | 4 du | 29 | 0 | 1 | 1 | 1 | 1 | 2 |
| 17 | 4013 Sawtelle Bl | Culver City | Medical Office | 4.52 ksf | 157 | 10 | 3 | 13 | 5 | 12 | 17 |
| 18 | 3873 Bentley Av | Culver City | Apartments | 2 du | 15 | 0 | 1 | 1 | 1 | 0 | 1 |
| 19 | West LA Community College Master Plan | Los Angeles | School | 18904 Students | 2,186 | 119 | 34 | 153 | 70 | 59 | 129 |
| 20 | 11141 Washington Bl | Culver City | Assisted Living | 117 du | 304 | 14 | 8 | 22 | 11 | 19 | 30 |
| 21 | 4338 Huntley Av | Culver City | Single Family Houses | 2 du | 19 | 0 | 1 | 1 | 1 | 0 | 1 |
| 22 | 4041 Sawtelle Bl | Culver City | Apartments | 3 du | 22 | 0 | 1 | 1 | 1 | 1 | 2 |
| 23 | 3906 Tilden Av | Culver City | Apartments | 2 du | 15 | 0 | 1 | 1 | 1 | 0 | 1 |
| 24 | 4095 Sawtelle Bl | Culver City | Apartments | 3 du | 22 | 0 | 1 | 1 | 1 | 1 | 2 |
| 25 | 11469 Jefferson Bl | Culver City | Hotel | 183 Rooms | 1,530 | 51 | 35 | 86 | 56 | 54 | 110 |
| 26 | 4233 East Bl | Culver City | Apartments | 3 du | 22 | 0 | 1 | 1 | 1 | 1 | 2 |
| 27 | 11620 Washington Bl | Culver City | Assisted Living | 72 du | 187 | 9 | 5 | 14 | 7 | 12 | 19 |
| Total: | | | | | 12,046 | 646 | 406 | 1,051 | 492 | 611 | 1,104 |

Notes:
du = dwelling unit; ksf = one-thousand square feet
Related projects list based on information provided by City of Culver City dated October 2020, LADOT on September 28, 2020, and LA County on April 24, 2019.

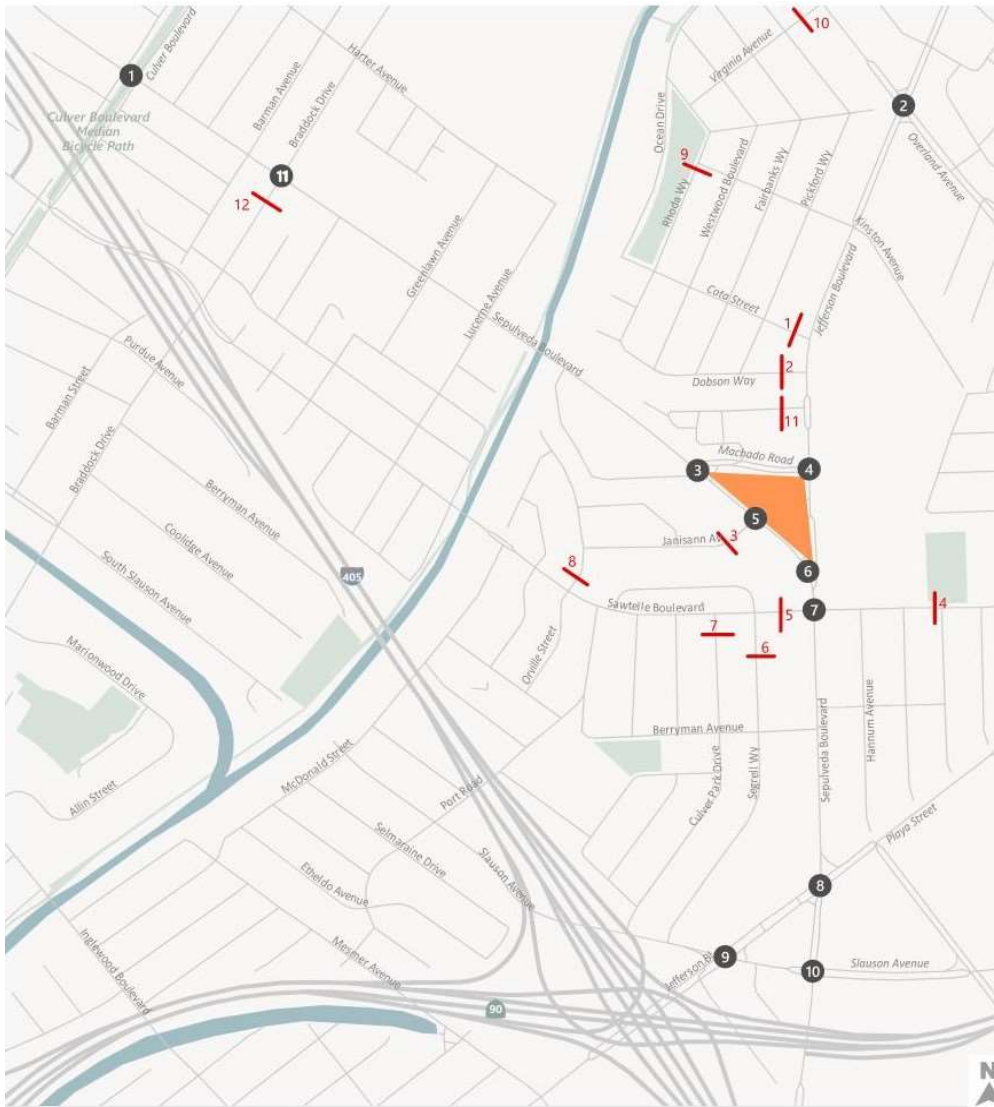


N:\Jobs\Active\3100s\3105_Sepulveda & Jefferson\Graphics\GIS\MXD\RelatedProjects.mxd

- Related Projects
- Project Site
- City Boundary
- City of Los Angeles
- City of Culver City
- Unincorporated Los Angeles County



Figure 13
1111 Jefferson Project
Related Projects



- Project Site
- Study Intersections
- Study Segments



| | | |
|--|--|--|
| <p>1. Sepulveda BI/Culver BI</p> <p>Culver BI</p> | <p>2. Jefferson BI/Overland Av</p> <p>Overland Av</p> | <p>3. Sepulveda BI/Machado Rd</p> <p>Machado Rd</p> |
| <p>4. Jefferson BI/Machado Rd</p> <p>Machado Rd</p> | <p>5. Sepulveda BI/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> | <p>6. Sepulveda BI/Jefferson BI (N)</p> <p>Jefferson BI (N)</p> |
| <p>7. Sepulveda BI/Sawtelle BI</p> <p>Sawtelle BI</p> | <p>8. Sepulveda BI/Playa St/Jefferson BI (S)</p> <p>Playa St/Jefferson BI (S)</p> | <p>9. Slauson Av/Jefferson BI</p> <p>Slauson Av</p> |
| <p>10. Sepulveda BI/Slauson Av</p> <p>Slauson Av</p> | <p>11. Sepulveda BI/Braddock Dr</p> <p>Braddock Dr</p> | |

Figure 14
Traffic Volumes & Lane Configurations
Related Projects Volumes - AM & PM Peak Hours

Opening Year (2024) Volumes and Level of Service

Figure 15 shows the Opening Year (2024) turning movement traffic volumes that include the estimated the ambient growth and related projects volumes.

Opening Year (2024) traffic volumes, presented in Figure 15, were analyzed to determine the intersection LOS and delay at each intersection. Because traffic signals in the City are monitored and adjusted according to changing traffic conditions, it was assumed that traffic signal timing splits at study intersections would be adjusted in any future year operations analysis. **Table 7** summarizes the Opening Year LOS and delay. LOS E or F are projected at four of the 11 study intersections during at least one of the analyzed peak hours, including:

1. Sepulveda Boulevard & Culver Boulevard (AM Peak Hour)
3. Sepulveda Boulevard & Machado Road (PM Peak Hour)
6. Sepulveda Boulevard & Jefferson Boulevard (N) (PM Peak Hour)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)

Opening Year Plus Project Volumes and Level of Service

The estimated Project traffic was added to the Opening Year (2024) traffic volumes to estimate Opening Year Plus Project traffic volumes. **Figure 16** shows the Opening Year Plus Project turning movement traffic volumes. Due to the addition of a new traffic signal at Sepulveda Boulevard and the Project Driveway/Janisann Avenue, traffic signal splits and coordination offsets were re-optimized at nearby Sepulveda Boulevard intersections.

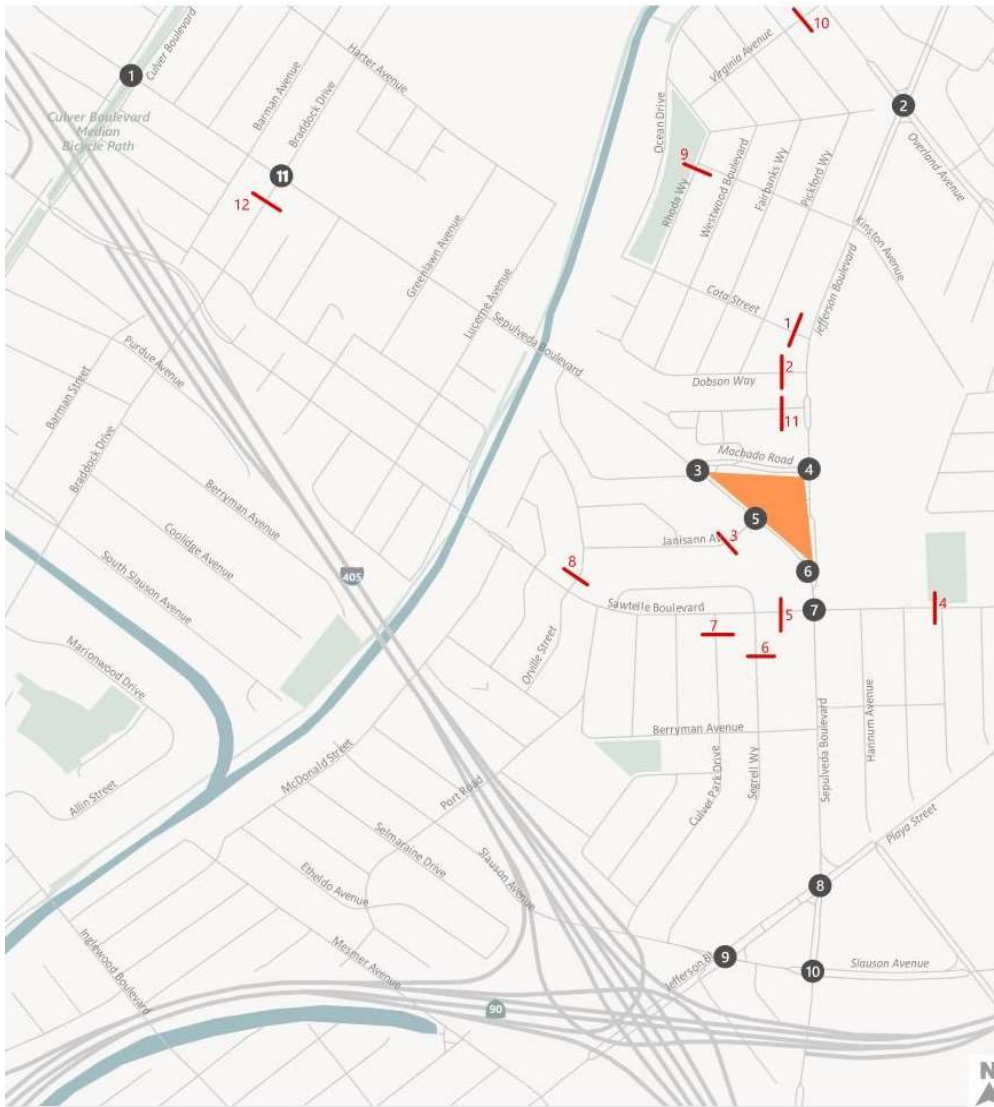
Opening Year Plus Project traffic volumes, presented in Figure 16, were analyzed to determine the intersection LOS and delay for each intersection. Table 7 summarizes the Opening Year plus Project LOS. LOS E or F are projected at four of the 11 study intersections during at least one of the analyzed peak hours, including:

1. Sepulveda Boulevard & Culver Boulevard (AM Peak Hour)
3. Sepulveda Boulevard & Machado Road (PM Peak Hour)
6. Sepulveda Boulevard & Jefferson Boulevard (N) (PM Peak Hour)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)

As indicated in the table, with the addition of Project traffic under the Opening Year Plus Project scenario, overall intersection delay is projected to increase during the PM peak hour by over 10 seconds at the intersection of Sepulveda Boulevard & Machado Road, which is already operating at LOS E or F.

Detailed LOS calculation worksheets are presented in **Appendix D**.



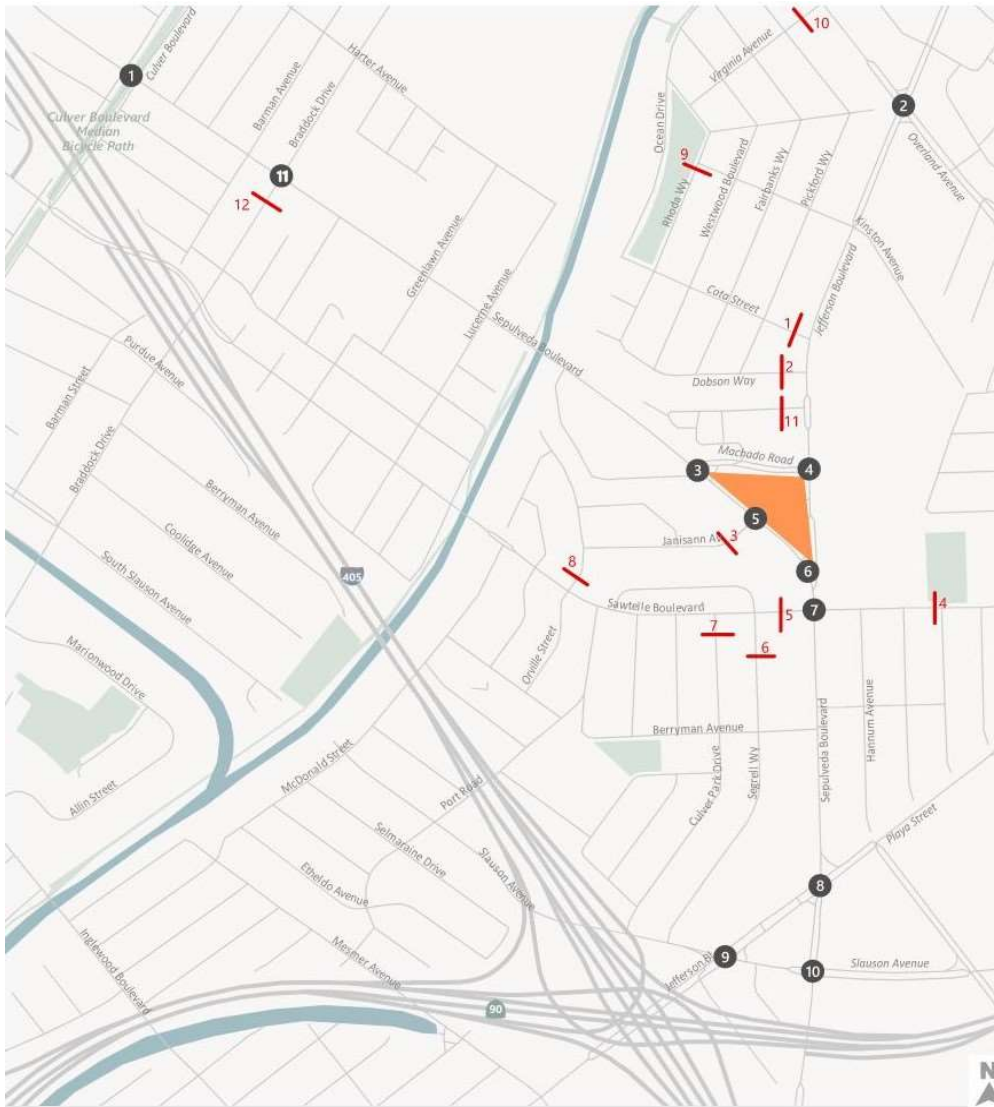


- Project Site
- Study Intersections
- Study Segments



| | | |
|--|--|---|
| <p>1. Sepulveda Bl/Culver Bl</p> <p>Culver Bl</p> <p>177 (268) 474 (1,075) 78 (62)</p> <p>Sepulveda Bl</p> <p>82 (71) 1,086 (1,197) 136 (225)</p> <p>251 (226) 1,166 (1,173) 62 (86)</p> <p>236 (118) 1,149 (737) 246 (168)</p> | <p>2. Jefferson Bl/Overland Av</p> <p>Overland Av</p> <p>370 (191) 867 (623) 286 (374)</p> <p>Jefferson Bl</p> <p>413 (597) 853 (616) 53 (49)</p> <p>161 (150) 527 (788) 352 (283)</p> <p>386 (315) 742 (920) 43 (44)</p> | <p>3. Sepulveda Bl/Machado Rd</p> <p>Machado Rd</p> <p>5 (4) 435 (1,190) 105 (241)</p> <p>Sepulveda Bl</p> <p>296 (237) 1 (3) 24 (29)</p> <p>8 (0) 4 (5) 6 (1)</p> <p>0 (4) 1 (3) 65 (68)</p> |
| <p>4. Jefferson Bl/Machado Rd</p> <p>Machado Rd</p> <p>277 (186) 1,097 (812) 60 (80)</p> <p>Jefferson Bl</p> <p>27 (1) 22 (42) 12 (27)</p> <p>139 (196) 22 (96) 15 (17)</p> <p>19 (17) 1,389 (1,160) 19 (44)</p> | <p>5. Sepulveda Bl/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> <p>16 (67) 436 (1,124) 2 (2)</p> <p>Sepulveda Bl</p> <p>3 (6) 1 (1) 4 (1)</p> <p>40 (15) 1 (0) 6 (10)</p> <p>12 (25) 1,605 (825) 11 (2)</p> | <p>6. Sepulveda Bl/Jefferson Bl (N)</p> <p>Jefferson Bl (N)</p> <p>3 (14) 496 (1,166)</p> <p>Sepulveda Bl</p> <p>10 (11) 1 (7) 1,099 (844)</p> <p>1,452 (849) 1,454 (1,293)</p> |
| <p>7. Sepulveda Bl/Sawtelle Bl</p> <p>Sawtelle Bl</p> <p>213 (152) 1,283 (1,740) 68 (123)</p> <p>Sepulveda Bl</p> <p>187 (91) 181 (149) 86 (60)</p> <p>177 (171) 183 (219) 73 (241)</p> <p>177 (90) 2,462 (1,853) 42 (68)</p> | <p>8. Sepulveda Bl/Playa St/Jefferson Bl (S)</p> <p>Playa St/Jefferson Bl (S)</p> <p>594 (455) 795 (1,589) 63 (107)</p> <p>Sepulveda Bl</p> <p>567 (188) 252 (317) 113 (206)</p> <p>555 (607) 237 (350) 10 (31)</p> <p>35 (56) 1,665 (1,231) 84 (140)</p> | <p>9. Slauson Av/Jefferson Bl</p> <p>Slauson Av</p> <p>102 (261) 93 (271) 23 (30)</p> <p>Jefferson Bl</p> <p>62 (31) 772 (797) 10 (46)</p> <p>142 (98) 800 (884) 164 (263)</p> <p>280 (349) 216 (96) 25 (20)</p> |
| <p>10. Sepulveda Bl/Slauson Av</p> <p>Slauson Av</p> <p>15 (23) 717 (1,466) 176 (281)</p> <p>Sepulveda Bl</p> <p>310 (234) 341 (262) 91 (187)</p> <p>28 (47) 174 (370) 65 (237)</p> <p>107 (144) 1,466 (1,185) 38 (71)</p> | <p>11. Sepulveda Bl/Braddock Dr</p> <p>Braddock Dr</p> <p>96 (76) 471 (1,325) 30 (35)</p> <p>Sepulveda Bl</p> <p>39 (42) 189 (162) 55 (91)</p> <p>65 (29) 210 (107) 52 (50)</p> <p>60 (41) 1,495 (911) 177 (117)</p> | |

Figure 15
Traffic Volumes & Lane Configurations
Opening Year (2024) Base - AM & PM Peak Hours



- Project Site
- Study Intersections
- Study Segments



| | | |
|---|--|---|
| <p>1. Sepulveda BI/Culver BI</p> <p>Culver BI</p> <p>177 (263) 478 (1,086) 78 (62)</p> <p>251 (226) 1,166 (1,173) 70 (104)</p> <p>Sepulveda BI</p> <p>82 (71) 1,086 (1,197) 139 (233)</p> <p>246 (131) 1,155 (745) 250 (174)</p> | <p>2. Jefferson BI/Overland Av</p> <p>Overland Av</p> <p>370 (191) 874 (639) 286 (374)</p> <p>161 (150) 527 (788) 360 (302)</p> <p>Jefferson BI</p> <p>413 (597) 853 (616) 53 (49)</p> <p>394 (330) 750 (932) 43 (44)</p> | <p>3. Sepulveda BI/Machado Rd</p> <p>Machado Rd</p> <p>5 (4) 445 (1,211) 111 (257)</p> <p>8 (0) 4 (5) 6 (1)</p> <p>Sepulveda BI</p> <p>314 (249) 1 (3) 27 (31)</p> <p>0 (4) 1,590 (839) 67 (73)</p> |
| <p>4. Jefferson BI/Machado Rd</p> <p>Machado Rd</p> <p>283 (223) 1,097 (812) 60 (60)</p> <p>155 (224) 22 (96) 36 (30)</p> <p>Jefferson BI</p> <p>27 (1) 22 (42) 12 (27)</p> <p>27 (38) 1,389 (1,160) 19 (44)</p> | <p>5. Sepulveda BI/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> <p>18 (68) 437 (1,125) 12 (23)</p> <p>41 (17) 2 (3) 6 (10)</p> <p>Sepulveda BI</p> <p>9 (27) 2 (4) 15 (40)</p> <p>12 (25) 1,606 (829) 36 (56)</p> | <p>6. Sepulveda BI/Jefferson BI (N)</p> <p>Jefferson BI (N)</p> <p>3 (14) 508 (1,206)</p> <p>10 (11) 1 (7) 1,120 (857)</p> <p>1,478 (907) 1,462 (1,314)</p> |
| <p>7. Sepulveda BI/Sawtelle BI</p> <p>Sawtelle BI</p> <p>215 (154) 1,313 (1,787) 69 (127)</p> <p>178 (174) 183 (219) 73 (241)</p> <p>Sepulveda BI</p> <p>189 (96) 181 (149) 86 (60)</p> <p>177 (90) 2,492 (1,924) 42 (68)</p> | <p>8. Sepulveda BI/Playa St/Jefferson BI (S)</p> <p>Playa St/Jefferson BI (S)</p> <p>612 (480) 807 (1,611) 63 (107)</p> <p>569 (641) 237 (350) 10 (31)</p> <p>Sepulveda BI</p> <p>567 (188) 252 (317) 113 (206)</p> <p>35 (56) 1,681 (1,268) 84 (140)</p> | <p>9. Slauson Av/Jefferson BI</p> <p>Slauson Av</p> <p>102 (261) 93 (271) 23 (30)</p> <p>142 (98) 814 (918) 164 (263)</p> <p>Jefferson BI</p> <p>62 (31) 790 (822) 10 (46)</p> <p>280 (349) 216 (96) 25 (20)</p> |
| <p>10. Sepulveda BI/Slauson Av</p> <p>Slauson Av</p> <p>15 (23) 722 (1,476) 184 (293)</p> <p>28 (47) 174 (370) 65 (237)</p> <p>Sepulveda BI</p> <p>320 (258) 341 (262) 91 (187)</p> <p>107 (144) 1,472 (1,198) 38 (71)</p> | <p>11. Sepulveda BI/Braddock Dr</p> <p>Braddock Dr</p> <p>96 (76) 486 (1,362) 30 (35)</p> <p>65 (29) 210 (107) 52 (50)</p> <p>Sepulveda BI</p> <p>39 (42) 189 (162) 55 (91)</p> <p>64 (47) 1,515 (938) 177 (117)</p> | |

Figure 16
Traffic Volumes & Lane Configurations
Opening Year + Project Volumes - AM & PM Peak Hours

**TABLE 7
OPENING YEAR (2024) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND DELAY**

| NO. | INTERSECTION | PEAK HOUR | OPENING YEAR (2024) | | OPENING YEAR + PROJECT | | DELAY INCREASE |
|-----|---|-----------|---------------------|-----|------------------------|-----|----------------|
| | | | DELAY (S.) | LOS | DELAY (S.) | LOS | |
| 1 | Sepulveda Bl & Culver Bl | AM | 56.5 | E | 60.7 | E | 4.2 |
| | | PM | 43.7 | D | 44.1 | D | 0.4 |
| 2 | Jefferson Bl & Overland Av | AM | 46.7 | D | 47.0 | D | 0.3 |
| | | PM | 43.2 | D | 43.5 | D | 0.3 |
| 3 | Sepulveda Bl & Machado Rd [b] | AM | 16.4 | B | 11.8 | B | -4.6 |
| | | PM | 59.3 | E | 94.2 | F | 34.9 |
| 4 | Jefferson Bl & Machado Rd [b] | AM | 41.8 | D | 42.5 | D | 0.7 |
| | | PM | 25.6 | C | 27.0 | C | 1.4 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [b,c] | AM | 1.3 | A | 5.1 | A | 3.8 |
| | | PM | 36.2 | D | 51.3 | D | 15.1 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [b] | AM | 34.8 | C | 33.7 | C | -1.1 |
| | | PM | 60.3 | E | 57.7 | E | -2.6 |
| 7 | Sepulveda Bl & Sawtelle Bl [b] | AM | 65.2 | E | 70.2 | E | 5.0 |
| | | PM | 77.8 | E | 74.9 | E | -2.9 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | AM | 34.3 | C | 34.8 | C | 0.5 |
| | | PM | 38.6 | D | 39.5 | D | 0.9 |
| 9 | Slauson Av & Jefferson Bl | AM | 25.1 | C | 25.2 | C | 0.1 |
| | | PM | 26.8 | C | 27.0 | C | 0.2 |
| 10 | Sepulveda Bl & Slauson Av | AM | 40.9 | D | 40.8 | D | -0.1 |
| | | PM | 37.5 | D | 37.5 | D | 0.0 |
| 11 | Sepulveda Bl & Braddock Dr | AM | 20.5 | C | 20.1 | C | -0.4 |
| | | PM | 14.6 | B | 14.6 | B | 0.0 |

[a] Intersections were analyzed using HCM methodologies per Culver City of Transportation Study Guidelines.

Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis [b] based on HCM methodologies.

[c] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

Future Buildout Year (2045) Volumes and Level of Service

In order to evaluate the potential effects of the proposed Project on the local street system under Future Buildout conditions, it was necessary to develop estimates of Future Buildout Year (2045) traffic conditions both with and without the Project. Future Buildout Year traffic volumes without the Project are first estimated, representing the Future Buildout Year conditions. The traffic generated by the proposed Project is then estimated and separately assigned to the surrounding street system. The sum of the Future Buildout Year and project-generated traffic represents Future Buildout Year plus Project traffic conditions.

The Future Buildout Year traffic projections reflect changes in traffic from one primary source: background or ambient growth in the Opening Year traffic volumes to reflect the effects of overall regional growth found in the Culver City travel demand forecasting model.

Long Term Areawide Traffic Growth

According to future projected population and job growth outputs from the TDFM, traffic volumes in the vicinity of the study area are projected to increase at a rate of about 0.46% per year on average through the year 2045. With the assumed TDFM buildout year of 2045, the Opening Year (2024) traffic volumes were adjusted upward by a factor of 0.46% per year for 21 years to reflect citywide and regional growth up to Year 2045. This percentage is considered a reasonable long-term growth rate.

Future Buildout Year (2045) Volumes and Level of Service

Figure 16 shows the Future Buildout Year (2045) turning movement traffic volumes that include the estimated ambient growth.

The Future Buildout Year (2045) traffic volumes, presented in Figure 16, were analyzed to determine the estimated intersection LOS and delay at each intersection. Because some of the traffic signals in the City of Culver City are monitored and adjusted according to current traffic conditions, it was assumed that traffic signal timing splits at study intersections would be adjusted in any future year operations analysis. **Table 8** summarizes the Future Buildout Year (2045) LOS and delay. LOS E or F are projected at five of the 11 study intersections during at least one of the analyzed peak hours, including:

1. Sepulveda Boulevard & Culver Boulevard (AM/PM Peak Hours)
3. Sepulveda Boulevard & Machado Road (PM Peak Hour)
4. Jefferson Boulevard & Machado Road (PM Peak Hour)
6. Sepulveda Boulevard & Jefferson Boulevard (N) (PM Peak Hour)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)

Future Buildout Year Plus Project Volumes and Level of Service

The estimated Project traffic was added to the Future Buildout Year (2045) traffic volumes to estimate Future Buildout Year Plus Project traffic volumes. **Figure 17** shows the Future Buildout Year Plus Project turning movement traffic volumes. Due to the addition of a new traffic signal at Sepulveda Boulevard and the



Project Driveway/Janisann Avenue, traffic signal splits and coordination offsets were re-optimized at nearby Sepulveda Boulevard intersections.

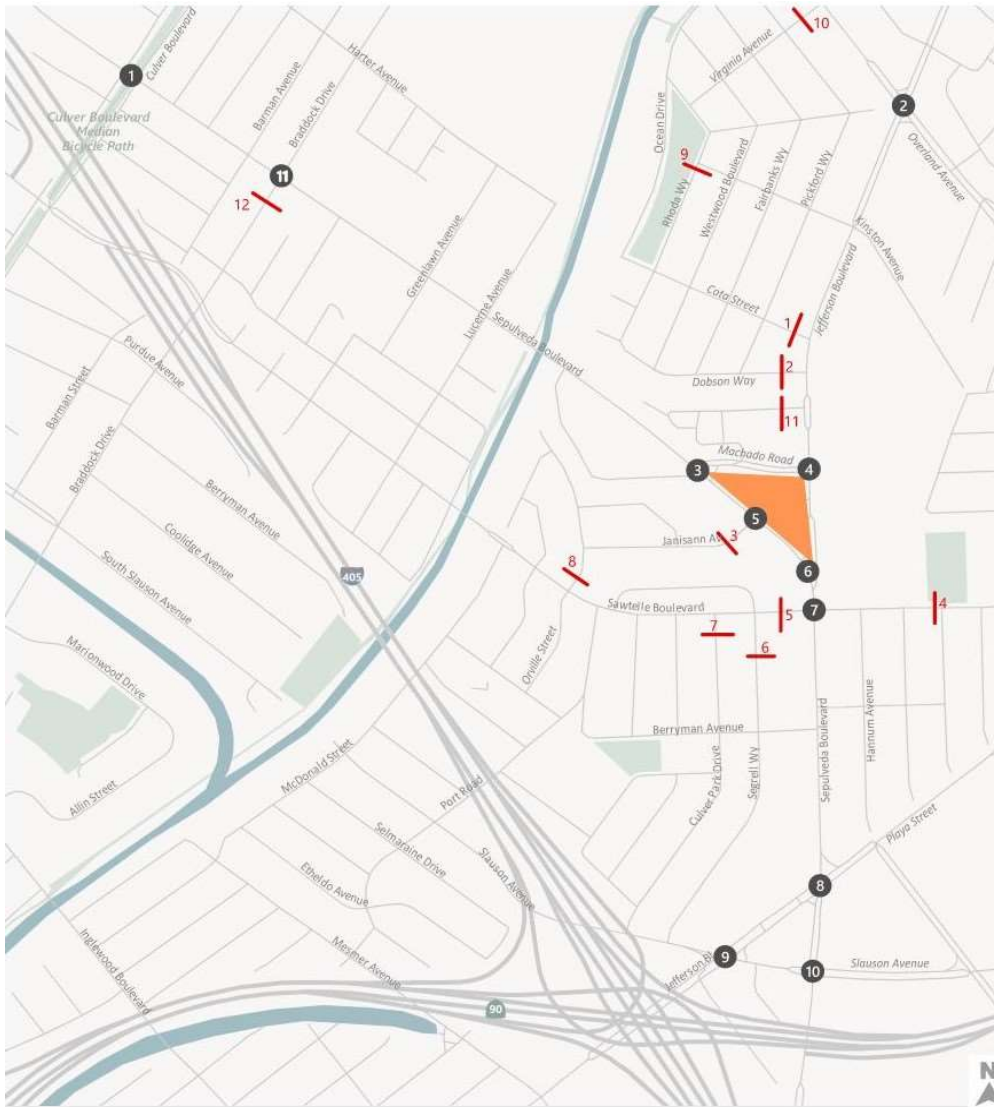
Future Buildout Year Plus Project traffic volumes, presented in Figure 17, were analyzed to determine the intersection LOS and delay for each intersection. Table 8 summarizes the Future Buildout Year plus Project LOS. LOS E or F are projected at six of the 11 study intersections during at least one of the analyzed peak hours, including:

1. Sepulveda Boulevard & Culver Boulevard (AM/PM Peak Hours)
3. Sepulveda Boulevard & Machado Road (PM Peak Hour)
4. Jefferson Boulevard & Machado Road (PM Peak Hour)
6. Sepulveda Boulevard & Jefferson Boulevard (N) (PM Peak Hour)
7. Sepulveda Boulevard & Sawtelle Boulevard (AM/PM Peak Hours)
8. Sepulveda Boulevard & Playa Street/Jefferson Boulevard (S) (PM Peak Hour)

As shown on the table, with the addition of Project traffic under the Future Year Plus Project scenario, overall intersection delay is projected to increase during the PM peak hour by over 10 seconds at the intersection of Sepulveda Boulevard & Playa Street/Jefferson Boulevard (S), which would result in LOS E or F conditions.

Detailed LOS calculation worksheets are presented in **Appendix D**.



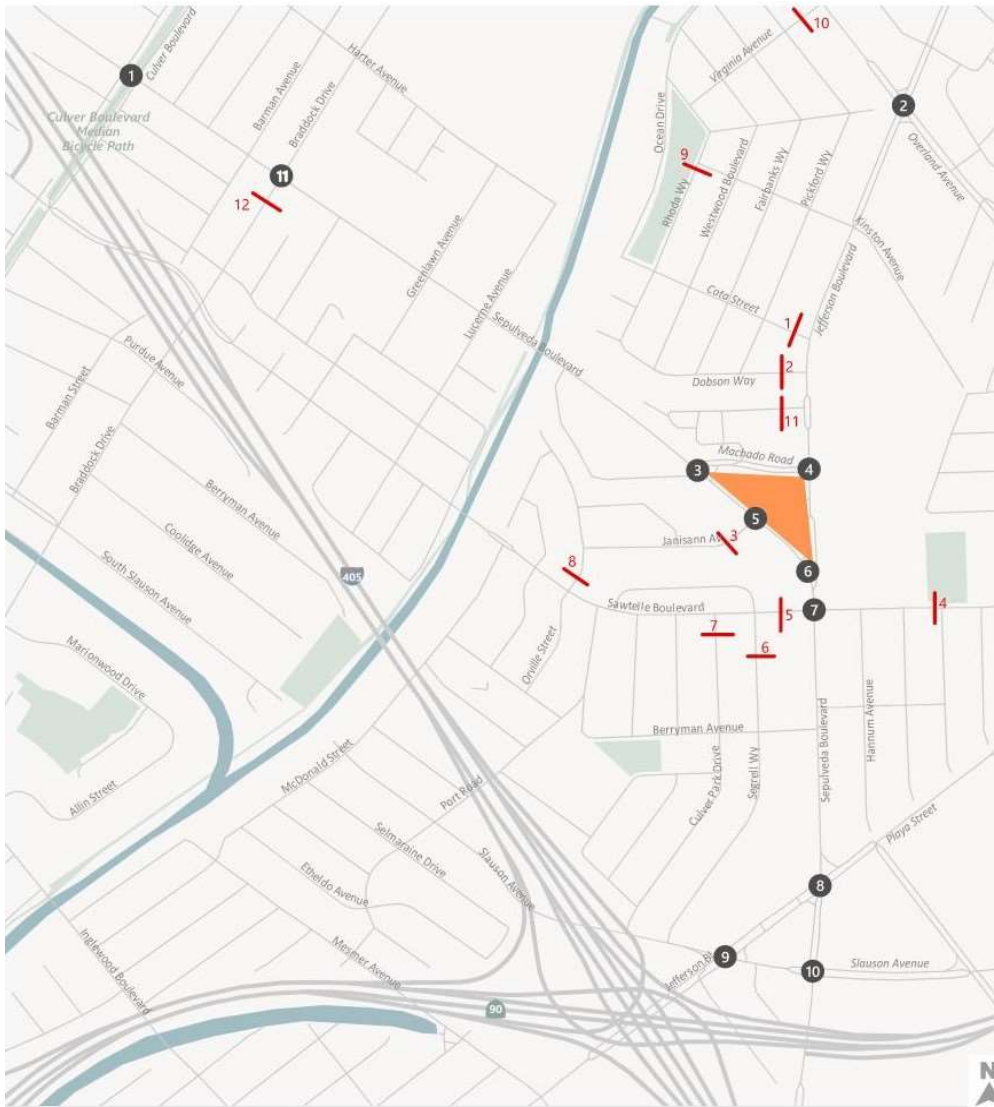


- Project Site
- Study Intersections
- Study Segments



| | | |
|--|---|---|
| <p>1. Sepulveda BI/Culver BI</p> <p>Culver BI</p> <p>196 (291) 522 (1,187) 86 (57)</p> <p>Sepulveda BI</p> <p>90 (78) 1,199 (1,321) 150 (249)</p> <p>278 (250) 1,287 (1,295) 68 (94)</p> <p>260 (130) 1,269 (813) 272 (186)</p> | <p>2. Jefferson BI/Overland Av</p> <p>Overland Av</p> <p>405 (211) 955 (886) 316 (413)</p> <p>457 (660) 944 (681) 59 (54)</p> <p>177 (166) 583 (872) 388 (312)</p> <p>426 (347) 818 (1,014) 48 (49)</p> | <p>3. Sepulveda BI/Machado Rd</p> <p>Machado Rd</p> <p>6 (4) 479 (1,314) 116 (266)</p> <p>327 (262) 1 (3) 27 (32)</p> <p>9 (0) 4 (6) 7 (1)</p> <p>0 (4) 1,751 (902) 72 (75)</p> |
| <p>4. Jefferson BI/Machado Rd</p> <p>Machado Rd</p> <p>306 (205) 1,208 (894) 66 (88)</p> <p>30 (1) 24 (46) 13 (30)</p> <p>154 (216) 24 (106) 17 (19)</p> <p>21 (19) 1,533 (1,278) 21 (49)</p> | <p>5. Sepulveda BI/Project Dwy/Janisann Av</p> <p>Project Dwy/Janisann Av</p> <p>18 (74) 480 (1,241) 2 (2)</p> <p>3 (7) 1 (1) 4 (1)</p> <p>44 (17) 1 (0) 7 (11)</p> <p>13 (28) 1,774 (970) 12 (2)</p> | <p>6. Sepulveda BI/Jefferson BI (N)</p> <p>Jefferson BI (N)</p> <p>3 (15) 546 (1,288)</p> <p>11 (12) 1 (8) 1,211 (929)</p> <p>1,605 (937) 1,605 (1,425)</p> |
| <p>7. Sepulveda BI/Sawtelle BI</p> <p>Sawtelle BI</p> <p>235 (167) 1,412 (1,920) 75 (136)</p> <p>207 (100) 200 (165) 95 (66)</p> <p>195 (189) 202 (242) 81 (266)</p> <p>195 (99) 2,719 (2,043) 46 (64)</p> | <p>8. Sepulveda BI/Playa St/Jefferson BI (S)</p> <p>Playa St/Jefferson BI (S)</p> <p>651 (601) 878 (1,754) 70 (118)</p> <p>627 (208) 279 (351) 125 (228)</p> <p>612 (666) 262 (387) 11 (34)</p> <p>39 (62) 1,838 (1,360) 93 (155)</p> | <p>9. Slauson Av/Jefferson BI</p> <p>Slauson Av</p> <p>113 (289) 103 (300) 25 (33)</p> <p>69 (34) 848 (879) 11 (51)</p> <p>157 (108) 883 (972) 181 (289)</p> <p>308 (386) 239 (106) 28 (22)</p> |
| <p>10. Sepulveda BI/Slauson Av</p> <p>Slauson Av</p> <p>17 (25) 793 (1,619) 194 (310)</p> <p>342 (258) 376 (289) 101 (206)</p> <p>31 (52) 192 (408) 72 (262)</p> <p>118 (159) 1,619 (1,310) 42 (79)</p> | <p>11. Sepulveda BI/Braddock Dr</p> <p>Braddock Dr</p> <p>106 (84) 518 (1,463) 33 (39)</p> <p>43 (46) 209 (179) 61 (101)</p> <p>72 (32) 232 (118) 58 (55)</p> <p>66 (45) 1,651 (1,005) 196 (129)</p> | |

Figure 17
Traffic Volumes & Lane Configurations
Future Buildout Year (2045) Volumes - AM & PM Peak Hours



| | | |
|---|--|--|
| <p>1. Sepulveda BI/Culver BI</p> <p>Sepulveda BI</p> <p>Culver BI</p> <p>196 (291) 526 (1,196) 86 (57)</p> <p>90 (78) 1,199 (1,321) 153 (257)</p> <p>278 (250) 1,287 (1,295) 76 (112)</p> <p>270 (143) 1,275 (821) 276 (192)</p> | <p>2. Jefferson BI/Overland Av</p> <p>Jefferson BI</p> <p>Overland Av</p> <p>409 (211) 962 (702) 316 (415)</p> <p>457 (660) 944 (681) 59 (54)</p> <p>177 (166) 583 (872) 396 (331)</p> <p>434 (362) 826 (1,026) 48 (49)</p> | <p>3. Sepulveda BI/Machado Rd</p> <p>Sepulveda BI</p> <p>Machado Rd</p> <p>6 (4) 489 (1,335) 122 (282)</p> <p>345 (274) 1 (3) 30 (34)</p> <p>9 (0) 4 (6) 7 (1)</p> <p>0 (4) 1,757 (923) 74 (80)</p> |
| <p>4. Jefferson BI/Machado Rd</p> <p>Jefferson BI</p> <p>Machado Rd</p> <p>322 (242) 1,208 (894) 66 (88)</p> <p>30 (1) 24 (46) 13 (30)</p> <p>170 (244) 24 (106) 38 (32)</p> <p>29 (40) 1,533 (1,278) 21 (49)</p> | <p>5. Sepulveda BI/Project Dwy/Janisann Av</p> <p>Sepulveda BI</p> <p>Project Dwy/Janisann Av</p> <p>20 (75) 481 (1,242) 12 (23)</p> <p>9 (28) 2 (4) 15 (40)</p> <p>45 (19) 2 (3) 7 (11)</p> <p>13 (28) 1,775 (914) 37 (56)</p> | <p>6. Sepulveda BI/Jefferson BI (N)</p> <p>Sepulveda BI</p> <p>Jefferson BI (N)</p> <p>3 (15) 568 (1,328)</p> <p>11 (12) 1 (8) 1,232 (942)</p> <p>1,631 (995) 1,613 (1,446)</p> |
| <p>7. Sepulveda BI/Sawtelle BI</p> <p>Sepulveda BI</p> <p>Sawtelle BI</p> <p>237 (169) 1,442 (1,967) 76 (140)</p> <p>209 (105) 200 (165) 95 (66)</p> <p>196 (192) 202 (242) 81 (266)</p> <p>195 (99) 2,749 (2,114) 46 (64)</p> | <p>8. Sepulveda BI/Playa St/Jefferson BI (S)</p> <p>Sepulveda BI</p> <p>Playa St/Jefferson BI (S)</p> <p>668 (626) 890 (1,776) 70 (118)</p> <p>627 (208) 279 (351) 125 (228)</p> <p>626 (700) 262 (387) 11 (34)</p> <p>39 (62) 1,854 (1,397) 93 (155)</p> | <p>9. Slauson Av/Jefferson BI</p> <p>Slauson Av</p> <p>Jefferson BI</p> <p>113 (289) 103 (300) 25 (33)</p> <p>69 (34) 866 (904) 11 (51)</p> <p>157 (108) 897 (1,006) 181 (289)</p> <p>308 (386) 239 (106) 28 (22)</p> |
| <p>10. Sepulveda BI/Slauson Av</p> <p>Sepulveda BI</p> <p>Slauson Av</p> <p>17 (25) 798 (1,629) 202 (322)</p> <p>352 (282) 376 (289) 101 (206)</p> <p>31 (52) 192 (408) 72 (262)</p> <p>118 (159) 1,625 (1,323) 42 (79)</p> | <p>11. Sepulveda BI/Braddock Dr</p> <p>Sepulveda BI</p> <p>Braddock Dr</p> <p>106 (84) 533 (1,500) 33 (39)</p> <p>43 (46) 209 (179) 61 (101)</p> <p>72 (32) 232 (118) 58 (55)</p> <p>70 (51) 1,671 (1,032) 196 (129)</p> | |

- Project Site
- Study Intersections
- Study Segments



Figure 18
Traffic Volumes & Lane Configurations
Future Buildout Year + Project Volumes - AM & PM Peak Hours

**TABLE 8
FUTURE BUILDOUT YEAR (2045) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND DELAY**

| NO. | INTERSECTION | PEAK HOUR | FUTURE BUILDOUT YEAR (2045) | | FUTURE BUILDOUT YEAR + PROJECT | | DELAY INCREASE |
|-----|---|-----------|-----------------------------|-----|--------------------------------|-----|----------------|
| | | | DELAY (S.) | LOS | DELAY (S.) | LOS | |
| | | | | | | | |
| 1 | Sepulveda Bl & Culver Bl | AM | 62.5 | E | 63.0 | E | 0.5 |
| | | PM | 56.4 | E | 56.0 | E | -0.4 |
| 2 | Jefferson Bl & Overland Av | AM | 47.5 | D | 47.9 | D | 0.4 |
| | | PM | 50.0 | D | 50.5 | D | 0.5 |
| 3 | Sepulveda Bl & Machado Rd [b] | AM | 11.9 | B | 11.7 | B | -0.2 |
| | | PM | 214.8 | F | 222.9 | F | 8.1 |
| 4 | Jefferson Bl & Machado Rd [b] | AM | 42.0 | D | 40.0 | D | -2.0 |
| | | PM | 70.0 | E | 69.6 | E | -0.4 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [b,c] | AM | 1.3 | A | 6.7 | A | 5.4 |
| | | PM | 51.9 | D | 49.3 | D | -2.6 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [b] | AM | 36.7 | D | 37.1 | D | 0.4 |
| | | PM | 75.1 | E | 66.7 | E | -8.4 |
| 7 | Sepulveda Bl & Sawtelle Bl [b] | AM | 77.5 | E | 78.1 | E | 0.6 |
| | | PM | 83.0 | F | 83.0 | F | 0.0 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | AM | 35.1 | D | 35.7 | D | 0.6 |
| | | PM | 42.4 | D | 77.8 | E | 35.4 |
| 9 | Slauson Av & Jefferson Bl | AM | 24.2 | C | 24.2 | C | 0.0 |
| | | PM | 29.8 | C | 30.1 | C | 0.3 |
| 10 | Sepulveda Bl & Slauson Av | AM | 38.4 | D | 38.4 | D | 0.0 |
| | | PM | 38.0 | D | 39.2 | D | 1.2 |
| 11 | Sepulveda Bl & Braddock Dr | AM | 22.2 | C | 22.3 | C | 0.1 |
| | | PM | 16.0 | B | 16.6 | B | 0.6 |

[a] Intersections were analyzed using HCM methodologies per Culver City of Transportation Study Guidelines.

Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis [b] based on HCM methodologies.

[c] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

[d] The Future Buildout Year according to the City of Culver City Travel Demand Forecasting Model is considered to be 2045.

Intersection Queuing Analysis

According to Culver City TSCG requirements, a queuing analysis was performed at the study intersections. Similar to the intersection operations analysis, Synchro software was used to analyze queues at study intersections, and a microsimulation analysis performed in Synchro/SimTraffic was used to analyze intersection approach and/or turn pocket queues at intersections immediately adjacent to the Project Site. 95th percentile queues for each scenario were reported at all study intersection approaches where Project traffic was expected to travel to and from the Project Site. 95th percentile queues are defined to be the length of queue that has only a 5% probability of being exceeded during the analyzed peak period. This conservative analysis would not represent what the average driver would experience, but is a standard commonly used in traffic engineering design to determine lengths of turn lanes. **Appendix D** contains intersection queue lengths for all approaches at all study intersections. According to the TSCG, significant queuing conditions would occur if trips generated by the Project cause the 95th percentile queue lengths at nearby intersections to exceed available capacity or storage space. Significant queuing conditions would not be considered significant impacts under CEQA. **Table 9** shows study intersection queues for the Existing (2019) and Existing Plus Project scenarios, **Table 10** shows study intersection queues for the Opening Year (2024) and Opening Year Plus Project scenarios, while **Table 11** shows study intersection queues for the Future Buildout Year (2045) and Future Buildout Year Plus Project scenarios. 95th percentile queues were rounded to the nearest 25 feet, approximately the amount of space a vehicle takes up on average considering spacing from other vehicles. 95th percentile queues were bolded if they exceeded storage or pocket capacity.

Based on the 95th percentile queue lengths presented in Tables 9, 10, and 11, significant queuing conditions as a result of the proposed Project would most likely be present at the following intersections under the Opening Year Plus Project:

3. Sepulveda Boulevard & Machado Road (PM Peak Hour) – Southbound left movement
5. Sepulveda Boulevard & Project Driveway/Janisann Avenue (PM Peak Hour) – Southbound through movement
6. Sepulveda Boulevard & Jefferson Boulevard (N) (PM Peak Hour) – Westbound left movement

Significant queuing conditions as a result of the proposed Project would most likely be present at the following intersections under the Future Buildout Year Plus Project scenarios:

4. Jefferson Boulevard & Machado Road (PM Peak Hour) – Southbound right movement
5. Sepulveda Boulevard & Project Driveway/Janisann Avenue (AM Peak Hour) – Southbound through movement
8. Sepulveda Boulevard & Playa Street/Jefferson Boulevard (AM Peak Hour) – Southbound right movement
8. Sepulveda Boulevard & Playa Street/Jefferson Boulevard (PM Peak Hour) – Northbound through movement

Detailed queuing analysis worksheets are presented in **Appendix D**.



**TABLE 9
EXISTING PLUS PROJECT INTERSECTION 95TH PERCENTILE QUEUING**

| NO. | INTERSECTION | KEY MOVEMENT [b] | STORAGE LENGTH (FT) | EXISTING (2019) QUEUE | | EXISTING + PROJECT QUEUE | | QUEUE INCREASE | QUEUE INCREASE |
|-----|---|------------------|---------------------|-----------------------|------------|--------------------------|------------|----------------|----------------|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Sepulveda Bl & Culver Bl | NBT | 475 | 625 | 325 | 625 | 325 | 0 | 0 |
| | | SBT | 1150 | 200 | 575 | 200 | 600 | 0 | 25 |
| 2 | Jefferson Bl & Overland Av | EBL | 200 | 200 | 200 | 200 | 200 | 0 | 0 |
| | | EBT | 750 | 250 | 350 | 250 | 350 | 0 | 0 |
| | | WBT | 325 | 475 | 300 | 475 | 300 | 0 | 0 |
| | | SBR | 125 | 150 | 50 | 150 | 50 | 0 | 0 |
| 3 | Sepulveda Bl & Machado Rd [c] | NBT | 400 | 325 | 150 | 325 | 175 | 0 | 25 |
| | | SBL | 225 | 125 | 250 | 75 | 250 | -50 | 0 |
| | | SBT | 550 | 100 | 325 | 150 | 375 | 50 | 50 |
| | | WBR | 200 | 75 | 50 | 50 | 50 | -25 | 0 |
| 4 | Jefferson Bl & Machado Rd [c] | EBL | 200 | 175 | 225 | 150 | 175 | -25 | -50 |
| | | NBT | 475 | 275 | 325 | 275 | 450 | 0 | 125 |
| | | SBT | 750 | 600 | 325 | 700 | 325 | 100 | 0 |
| | | SBR | 375 | 325 | 100 | 425 | 125 | 100 | 25 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [c,d] | NBT | 300 | 25 | 50 | 100 | 125 | 75 | 75 |
| | | SBT | 400 | 25 | 425 | 125 | 500 | 100 | 75 |
| | | WBR | 100 | 50 | 75 | 50 | 75 | 0 | 0 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [c] | SBT | 325 | 175 | 300 | 200 | 325 | 25 | 25 |
| | | WBL | 475 | 525 | 425 | 550 | 500 | 25 | 75 |
| 7 | Sepulveda Bl & Sawtelle Bl [c] | EBL | 175 | 175 | 250 | 175 | 250 | 0 | 0 |
| | | EBT | 300 | 275 | 325 | 275 | 300 | 0 | -25 |
| | | NBL | 275 | 300 | 200 | 300 | 200 | 0 | 0 |
| | | NBT | 700 | 375 | 400 | 375 | 425 | 0 | 25 |
| | | SBL | 175 | 100 | 175 | 125 | 200 | 25 | 25 |
| | | SBT | 225 | 300 | 300 | 300 | 325 | 0 | 25 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | WBL | 100 | 150 | 150 | 150 | 150 | 0 | 0 |
| | | EBL | 450 | 375 | 400 | 400 | 450 | 25 | 50 |
| | | NBT | 500 | 825 | 550 | 850 | 575 | 25 | 25 |
| | | SBL | 75 | 125 | 200 | 125 | 200 | 0 | 0 |
| | | SBT | 900 | 300 | 675 | 300 | 675 | 0 | 0 |
| 9 | Slauson Av & Jefferson Bl | SBR | 175 | 175 | 150 | 200 | 175 | 25 | 25 |
| | | EBT | 475 | 225 | 225 | 225 | 250 | 0 | 25 |
| 10 | Sepulveda Bl & Slauson Av | WBT | 675 | 250 | 225 | 225 | 250 | -25 | 25 |
| | | NBT | 625 | 450 | 375 | 450 | 375 | 0 | 0 |
| 11 | Sepulveda Bl & Braddock Dr | SBT | 450 | 225 | 425 | 225 | 450 | 0 | 25 |
| | | EBT | 600 | 425 | 175 | 425 | 175 | 0 | 0 |
| 11 | Sepulveda Bl & Braddock Dr | WBT | 850 | 350 | 300 | 350 | 300 | 0 | 0 |

[a] Intersection movement 95th percentile queues rounded to the nearest 25 feet, approximately the length of one vehicle.

[b] Key movement defined as a queue most likely affected by the Project that either (a) extends beyond the storage bay of the turn pocket or (b) a through queue that extends to the upstream intersection.

[c] Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis based on HCM methodologies.

[d] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

[e] Queues that exceed capacity are bolded. Project related queue increases of 50 or more feet are highlighted if queues exceed capacity.

**TABLE 10
OPENING YEAR (2024) PLUS PROJECT INTERSECTION 95TH PERCENTILE QUEUING**

| NO. | INTERSECTION | KEY MOVEMENT [b] | STORAGE LENGTH (FT) | OPENING YEAR (2024) QUEUE | | OPENING YEAR + PROJECT QUEUE | | QUEUE INCREASE AM | QUEUE INCREASE PM |
|-----|---|------------------|---------------------|---------------------------|------------|------------------------------|------------|-------------------|-------------------|
| | | | | AM | PM | AM | PM | | |
| 1 | Sepulveda Bl & Culver Bl | NBT | 475 | 700 | 350 | 700 | 350 | 0 | 0 |
| | | SBT | 1150 | 225 | 625 | 225 | 625 | 0 | 0 |
| 2 | Jefferson Bl & Overland Av | EBL | 200 | 250 | 250 | 250 | 250 | 0 | 0 |
| | | EBT | 750 | 250 | 400 | 250 | 400 | 0 | 0 |
| | | WBT | 325 | 500 | 300 | 500 | 300 | 0 | 0 |
| | | SBR | 125 | 175 | 50 | 175 | 50 | 0 | 0 |
| 3 | Sepulveda Bl & Machado Rd [c] | NBT | 400 | 275 | 200 | 175 | 175 | -100 | -25 |
| | | SBL | 225 | 125 | 225 | 100 | 275 | -25 | 50 |
| | | SBT | 550 | 100 | 425 | 75 | 500 | -25 | 75 |
| | | WBR | 200 | 75 | 75 | 75 | 50 | 0 | -25 |
| 4 | Jefferson Bl & Machado Rd [c] | EBL | 200 | 200 | 225 | 150 | 175 | -50 | -50 |
| | | NBT | 475 | 425 | 150 | 475 | 200 | 50 | 50 |
| | | SBT | 750 | 925 | 325 | 950 | 350 | 25 | 25 |
| | | SBR | 375 | 625 | 175 | 525 | 175 | -100 | 0 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [c,d] | NBT | 300 | 25 | 75 | 100 | 225 | 75 | 150 |
| | | SBT | 400 | 25 | 525 | 100 | 575 | 75 | 50 |
| | | WBR | 100 | 50 | 75 | 50 | 75 | 0 | 0 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [c] | SBT | 325 | 175 | 275 | 175 | 275 | 0 | 0 |
| | | WBL | 475 | 550 | 500 | 550 | 550 | 0 | 50 |
| 7 | Sepulveda Bl & Sawtelle Bl [c] | EBL | 175 | 175 | 250 | 175 | 250 | 0 | 0 |
| | | EBT | 300 | 275 | 300 | 250 | 325 | -25 | 25 |
| | | NBL | 275 | 300 | 225 | 300 | 225 | 0 | 0 |
| | | NBT | 700 | 375 | 375 | 375 | 375 | 0 | 0 |
| | | SBL | 175 | 100 | 200 | 125 | 200 | 25 | 0 |
| | | SBT | 225 | 300 | 325 | 300 | 325 | 0 | 0 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | EBL | 450 | 300 | 425 | 300 | 450 | 0 | 25 |
| | | NBT | 500 | 950 | 700 | 950 | 725 | 0 | 25 |
| | | SBL | 75 | 150 | 275 | 150 | 275 | 0 | 0 |
| | | SBT | 900 | 325 | 850 | 325 | 875 | 0 | 25 |
| | | SBR | 175 | 325 | 275 | 350 | 300 | 25 | 25 |
| 9 | Slauson Av & Jefferson Bl | EBT | 475 | 225 | 325 | 225 | 325 | 0 | 0 |
| | | WBT | 675 | 275 | 300 | 275 | 325 | 0 | 25 |
| 10 | Sepulveda Bl & Slauson Av | NBT | 625 | 475 | 400 | 475 | 400 | 0 | 0 |
| | | SBT | 450 | 200 | 450 | 200 | 450 | 0 | 0 |
| 11 | Sepulveda Bl & Braddock Dr | EBT | 600 | 400 | 175 | 350 | 175 | -50 | 0 |
| | | WBT | 850 | 300 | 300 | 300 | 300 | 0 | 0 |

[a] Intersection movement 95th percentile queues rounded to the nearest 25 feet, approximately the length of one vehicle.

[b] Key movement defined as a queue most likely affected by the Project that either (a) extends beyond the storage bay of the turn pocket or (b) a through queue that extends to the upstream intersection.

[c] Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis based on HCM methodologies.

[d] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

[e] Queues that exceed capacity are bolded. Project related queue increases of 50 or more feet are highlighted if queues exceed capacity.

**TABLE 11
FUTURE BUILDOUT YEAR (2045) PLUS PROJECT INTERSECTION 95TH PERCENTILE QUEUING**

| NO. | INTERSECTION | KEY MOVEMENT [b] | STORAGE LENGTH (FT) | FUTURE BUILDOUT YEAR (2045) QUEUE | | FUTURE BUILDOUT YEAR + PROJECT QUEUE | | QUEUE INCREASE | QUEUE INCREASE |
|-----|---|------------------|---------------------|-----------------------------------|-------------|--------------------------------------|-------------|----------------|----------------|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Sepulveda Bl & Culver Bl | NBT | 475 | 775 | 375 | 775 | 400 | 0 | 25 |
| | | SBT | 1150 | 250 | 700 | 250 | 725 | 0 | 25 |
| 2 | Jefferson Bl & Overland Av | EBL | 200 | 275 | 275 | 275 | 275 | 0 | 0 |
| | | EBT | 750 | 275 | 500 | 275 | 500 | 0 | 0 |
| | | WBT | 325 | 525 | 325 | 525 | 350 | 0 | 25 |
| | | SBR | 125 | 225 | 50 | 225 | 50 | 0 | 0 |
| 3 | Sepulveda Bl & Machado Rd [c] | NBT | 400 | 175 | 275 | 175 | 275 | 0 | 0 |
| | | SBL | 225 | 125 | 300 | 100 | 300 | -25 | 0 |
| | | SBT | 550 | 125 | 575 | 150 | 525 | 25 | -50 |
| | | WBR | 200 | 75 | 50 | 75 | 75 | 0 | 25 |
| 4 | Jefferson Bl & Machado Rd [c] | EBL | 200 | 200 | 225 | 150 | 175 | -50 | -50 |
| | | NBT | 475 | 400 | 250 | 425 | 400 | 25 | 150 |
| | | SBT | 750 | 900 | 950 | 900 | 975 | 0 | 25 |
| | | SBR | 375 | 525 | 475 | 525 | 525 | 0 | 50 |
| 5 | Sepulveda Bl & Project Driveway/Janisann Av [c,d] | NBT | 300 | 25 | 150 | 125 | 125 | 100 | -25 |
| | | SBT | 400 | 25 | 600 | 125 | 525 | 100 | -75 |
| | | WBR | 100 | 50 | 75 | 50 | 75 | 0 | 0 |
| 6 | Sepulveda Bl & Jefferson Bl (N) [c] | SBT | 325 | 225 | 275 | 225 | 275 | 0 | 0 |
| | | WBL | 475 | 550 | 575 | 550 | 600 | 0 | 25 |
| 7 | Sepulveda Bl & Sawtelle Bl [c] | EBL | 175 | 175 | 250 | 175 | 250 | 0 | 0 |
| | | EBT | 300 | 250 | 300 | 250 | 300 | 0 | 0 |
| | | NBL | 275 | 300 | 225 | 300 | 225 | 0 | 0 |
| | | NBT | 700 | 375 | 375 | 375 | 375 | 0 | 0 |
| | | SBL | 175 | 100 | 200 | 100 | 225 | 0 | 25 |
| | | SBT | 225 | 250 | 325 | 225 | 325 | -25 | 0 |
| 8 | Sepulveda Bl & Playa St/Jefferson Bl (S) | WBL | 100 | 150 | 125 | 150 | 150 | 0 | 25 |
| | | EBL | 450 | 325 | 475 | 325 | 500 | 0 | 25 |
| | | NBT | 500 | 1050 | 825 | 1075 | 875 | 25 | 50 |
| | | SBL | 75 | 150 | 300 | 150 | 300 | 0 | 0 |
| | | SBT | 900 | 350 | 1000 | 350 | 1025 | 0 | 25 |
| 9 | Slauson Av & Jefferson Bl | SBR | 175 | 375 | 350 | 425 | 300 | 50 | -50 |
| | | EBT | 475 | 250 | 375 | 250 | 400 | 0 | 25 |
| 10 | Sepulveda Bl & Slauson Av | WBT | 675 | 300 | 375 | 325 | 400 | 25 | 25 |
| | | NBT | 625 | 525 | 425 | 525 | 450 | 0 | 25 |
| 11 | Sepulveda Bl & Braddock Dr | SBT | 450 | 200 | 525 | 225 | 525 | 25 | 0 |
| | | EBT | 600 | 425 | 175 | 425 | 200 | 0 | 25 |
| | | WBT | 850 | 325 | 350 | 325 | 400 | 0 | 50 |

[a] Intersection movement 95th percentile queues rounded to the nearest 25 feet, approximately the length of one vehicle.

[b] Key movement defined as a queue most likely affected by the Project that either (a) extends beyond the storage bay of the turn pocket or (b) a through queue that extends to the upstream intersection.

[c] Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis based on HCM methodologies.

[d] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

[e] The Future Buildout Year according to the City of Culver City Travel Demand Forecasting Model is considered to be 2045.

[f] Queues that exceed capacity are bolded. Project related queue increases of 50 or more feet are highlighted if queues exceed capacity.

Corrective Actions

Due to LOS E and F conditions under future year scenarios with the addition of the proposed Project and observed conditions at studied intersections along Sepulveda Boulevard, particularly the southbound direction during the PM peak hour, corrective actions were explored in order to reduce intersection queuing and vehicular delay. Under the various "Plus Project" scenarios, the addition of Project traffic is projected to increase overall intersection delay at intersections already operating at LOS E or F, or causing or worsening LOS E or F conditions. LOS E and F conditions and intersection delay would not be considered significant impacts under CEQA. Although the addition of a new traffic signal at Sepulveda Boulevard and Janisann Avenue would facilitate safer turning movements into and out of the Project and would also provide a safer signalized pedestrian crossing, the proposed traffic signal would increase southbound vehicular delay during the PM peak hour, particularly at the upstream intersection of Sepulveda Boulevard and Machado Road. Much of this queuing and delay on southbound Sepulveda Boulevard is attributed to an existing reduction in travel lanes on southbound Sepulveda from three through lanes to two through lanes south of Sawtelle Boulevard.

The feasibility of converting the existing parking lane on Sepulveda Boulevard south of Sawtelle Boulevard to a peak period travel lane, which would remove the bottleneck, was investigated. This would require revising signage and parking meter software to prohibit street parking along the west side of Sepulveda Boulevard during the PM peak period but would not require restriping the street. During discussions with City staff, this corrective action was not deemed feasible due to future City projects and plans to utilize public ROW space on Sepulveda Boulevard for other modes of transportation such as biking and transit. Due to the constrained ROW conditions, planned infrastructure projects, and confluence of major roadways near the Project Site, other corrective actions were not found to be feasible, such as the widening of roadways to provide additional vehicular capacity.

Although other feasible corrective actions were not able to be found, the Project would provide a variety of TDM measures which would aim to reduce Project traffic and trip-making. Measures such as a commute marketing program, pedestrian-oriented Project Site, bicycle infrastructure and amenities, subsidized transit passes, and carsharing spaces would offer alternatives to making trips in private vehicles.

Driveway Level of Service and Queuing Analysis

Three Project driveways are proposed serving the Project Site. Employee, visitor, and commercial vehicular access to the Project Site would access the site at the following two driveways which would lead to ground level and mezzanine level parking:

- One unsignalized driveway on Machado Road west of Jefferson Boulevard. All movements would be allowed except for northbound (outbound) left-turns onto Machado Road. This driveway would also serve the loading dock.
- One signalized driveway on Sepulveda Boulevard opposite of Janisann Avenue. All movements would be allowed at this location, which is proposed to be signalized with protected left-turn



phasing on Sepulveda Boulevard. Signalized crosswalks would be provided at all legs of the intersection.

Residents of the Project Site would access underground parking via a third unsignalized driveway on Machado Road east of Sepulveda Boulevard, opposite Heritage Place. This driveway would also be used by patrons using ECF's 34 off-site parking spaces. The Project driveway and Heritage Place would be stop-controlled approaches. A channelizing island would be installed on Heritage Place to prevent southbound through and left-turn movements at Machado Road.

The purpose of the driveway LOS and queuing analysis is to determinate whether or not the Project's driveways would adversely affect queues at nearby intersections and side streets. Using the same microsimulation network, Project driveways were placed in their approximate locations relative to the study intersections. LOS and queues for the signalized Sepulveda driveway at Janisann Avenue were previously discussed in the intersection operations analysis. There would be adequate length in the existing two-way left-turn pocket to accommodate new left-turn lanes into the Project and Janisann Avenue. **Table 12** shows estimated LOS and queues for the remaining two driveways on Machado Road. All Machado Road driveways would operate at LOS A or B. As shown on Table 12, there would be enough space along Machado Road to accommodate turn pockets for estimated queues under all Plus Project scenarios. Below are the proposed turn pocket lengths for left-turn pockets at Machado driveways:

- Residential Driveway/Machado Road
 - Westbound Left-Turn: 75'
 - Eastbound Left-Turn: 50'
- Commercial Driveway/Machado Road
 - Westbound Left-turn: 75'

The proposed commercial driveway on Machado Road would be located approximately 100' west of the intersection of Machado Road and Jefferson Boulevard, which would provide adequate space to fit the westbound left-turn pocket and taper, since part of the left-turn pocket would enter the driveway intersection due to striping that would prevent outbound driveway vehicles from turning left back onto Machado Road. Because the proposed commercial driveway on Machado Road would also serve heavy trucks utilizing the loading dock, delivery hours would be restricted to off-peak periods to reduce the effects of wide turning trucks on City streets.

Appendix D contains the complete LOS and queuing sheets for the Project driveways.



**TABLE 12
DRIVEWAY LEVEL OF SERVICE, DELAY, AND QUEUES**

| INTERSECTION | PEAK HOUR | WBL TURN POCKET PROPOSED LENGTH | EXISTING PLUS PROJECT | | | OPENING YEAR PLUS PROJECT | | | FUTURE BUILDOUT YEAR PLUS PROJECT | | |
|-------------------------------------|-----------|--|-----------------------|-----|------|---------------------------|-----|------|--------------------------------------|-----|------|
| | | | WBL QUEUE | | | WBL QUEUE | | | WBL QUEUE | | |
| | | | DELAY (S.) | LOS | (FT) | DELAY (S.) | LOS | (FT) | DELAY (S.) | LOS | (FT) |
| Residential Driveway & Machado Road | AM | 50 | 1.5 | A | 25 | 1.7 | A | 25 | 1.7 | A | 25 |
| | PM | | 2.3 | A | 25 | 1.9 | A | 50 | 3.4 | A | 25 |
| Commercial Driveway & Machado Road | AM | 75 | 2.0 | A | 50 | 2.4 | A | 25 | 3.2 | A | 25 |
| | PM | | 5.9 | A | 50 | 9.4 | A | 75 | 10.4 | B | 50 |

[a] Intersection movement 95th percentile queues rounded to the nearest 25 feet, approximately the length of one vehicle.

[b] Key movement defined as a queue most likely affected by the Project that either (a) extends beyond the storage bay of the turn pocket or (b) a through queue that extends to the upstream intersection.

[c] Due to atypical intersection operations and closely spaced intersections, these study locations were analyzed using a microsimulation level analysis based on HCM methodologies.

[d] Intersection is currently unsignalized, but is proposed to be signalized as part of Project construction.

Neighborhood Street Segment Analysis

Twenty-four hour street segment counts were conducted in May 2019 at 10 of the 12 analyzed street segments. **Table 13, Table 14, and Table 15** analyze the existing, opening year, and future buildout conditions with and without the Project on the following 12 neighborhood street segments:

1. Cota Street between Jefferson Boulevard and Pickford Way
2. Dobson Way between Jefferson Boulevard and Pickford Way
3. Janisann Avenue between Sepulveda Boulevard and Kalein Drive
4. Sawtelle Boulevard between Stevens Avenue and Malat Way
5. Sawtelle Boulevard between Sepulveda Boulevard and Blanco Way
6. Segrell Way between Sawtelle Boulevard and Berryman Avenue
7. Culver Park between Sawtelle Boulevard and Berryman Avenue
8. Orville Street between Sawtelle Boulevard and Janisann Avenue
9. Rhoda Way between Cota Street and Kinston Avenue
10. Virginia Avenue between Pickford Way and Overland Avenue
11. Ballona Lane west of Jefferson Boulevard
12. Braddock Drive west of Sepulveda Boulevard

The analysis used the TSCG’s significant project conditions thresholds for residential streets, which would not be considered significant impacts under CEQA:

| Projected Average Daily Traffic (ADT) with Project | Project-Related Increase in ADT |
|---|--|
| 999 or Less | 120 trips or more |
| 1,000 – 1,999 | 12% or more of final ADT |
| 2,000 – 2,999 | 10% or more of final ADT |
| 3,000 or more | 8% or more of final ADT |

Street segment counts taken before the COVID-19 pandemic were not available at segments 11 and 12. Therefore, the most conservative threshold (120 daily trips) was applied to the Ballona Lane and Braddock Drive segments. Vehicle volumes were developed for the segment analysis in the same manner as the intersection analysis. Furthermore, a channelizing island would be installed on Heritage Place at the Machado road intersection, which would prevent southbound through and left-turn movements. This is intended to prevent cut-through traffic from traveling on Ballona Lane and Heritage Place.

Based on Tables 13, 14, and 15, this analysis shows that the Project would not create significant project conditions on any of the studied neighborhood streets in any Project scenario. Significant project conditions under the TSCG would not be considered significant impacts under CEQA. After the buildout of the Project Site, the City of Culver City would reserve the right to monitor traffic volumes on studied neighborhood streets and require traffic calming measures to be built to minimize Project cut-through traffic.



**TABLE 13
NEIGHBORHOOD STREET SEGMENT ANALYSIS - DAILY TRAFFIC VOLUME - EXISTING CONDITIONS**

| Location | Weekday Bidirectional Daily Volume | | | Segment Analysis | | |
|---|------------------------------------|--------------|-----------------------|------------------|------------------------|--------------------------------|
| | Existing ADT | Project Only | Existing plus Project | % of Final ADT | Significance Threshold | Significant Project Condition? |
| Cota St b/w Jefferson Bl and Pickford Way | 754 | 28 | 782 | 3.6% | 120 Trips | No |
| Dobson Way b/w Jefferson Bl and Pickford Way | 1,997 | * | 1,997 | - | +12.0% | No |
| Janisann Ave b/w Sepulveda Bl and Kalein Dr | 686 | 82 | 768 | 10.7% | 120 Trips | No |
| Sawtelle Blvd b/w Stevens Av and Malat Way | 5,905 | 82 | 5,987 | 1.4% | +8.0% | No |
| Sawtelle Blvd b/w Sepulveda Blvd and Blanco Way | 10,204 | 54 | 10,258 | 0.5% | +8.0% | No |
| Segrell Way b/w Sawtelle Blvd and Berryman Av | 1,709 | * | 1,709 | - | +12.0% | No |
| Culver Park b/w Sawtelle Blvd and Berryman Av | 920 | * | 920 | - | 120 Trips | No |
| Orville St b/w Sawtelle Blvd and Janisann Av | 612 | 82 | 694 | 11.8% | 120 Trips | No |
| Rhoda Way b/w Cota St and Kinston Av | 464 | 28 | 492 | 5.7% | 120 Trips | No |
| Virginia Ave b/w Pickford Way and Overland Av | 1,603 | 28 | 1,631 | 1.7% | +12.0% | No |
| Ballona Ln w/o Jefferson Bl [a] | - | * | - | - | 120 Trips | No |
| Braddock Drive b/w Sepulveda Bl & Huntley Av [a] | - | 68 | - | - | 120 Trips | No |

Note: [a] Weekday bidirectional daily volumes were not available at these street segments due to the COVID-19 Pandemic. In absence of volume data, the most conservative significance threshold of 120 Project-related trips was applied to determine if significant Project conditions occurred.

* A negligible number of Project trips

TABLE 14
NEIGHBORHOOD STREET SEGMENT ANALYSIS - DAILY TRAFFIC VOLUME - OPENING YEAR (2024) CONDITIONS

| Location | Weekday Bidirectional Daily Volume | | | Segment Analysis | | |
|---|------------------------------------|--------------|---------------------------|------------------|------------------------|--------------------------------|
| | Opening Year (2024) ADT | Project Only | Opening Year plus Project | % of Final ADT | Significance Threshold | Significant Project Condition? |
| Cota St b/w Jefferson Bl and Pickford Way | 792 | 28 | 820 | 3.4% | 120 Trips | No |
| Dobson Way b/w Jefferson Bl and Pickford Way | 2,099 | * | 2,099 | - | +10.0% | No |
| Janisann Ave b/w Sepulveda Bl and Kalein Dr | 721 | 82 | 803 | 10.2% | 120 Trips | No |
| Sawtelle Blvd b/w Stevens Av and Malat Way | 6,248 | 82 | 6,330 | 1.3% | +8.0% | No |
| Sawtelle Blvd b/w Sepulveda Blvd and Blanco Way | 11,011 | 54 | 11,065 | 0.5% | +8.0% | No |
| Segrell Way b/w Sawtelle Blvd and Berryman Av | 1,796 | * | 1,796 | - | +12.0% | No |
| Culver Park b/w Sawtelle Blvd and Berryman Av | 967 | * | 967 | - | 120 Trips | No |
| Orville St b/w Sawtelle Blvd and Janisann Av | 643 | 82 | 725 | 11.3% | 120 Trips | No |
| Rhoda Way b/w Cota St and Kinston Av | 488 | 28 | 516 | 5.4% | 120 Trips | No |
| Virginia Ave b/w Pickford Way and Overland Av | 1,685 | 28 | 1,713 | 1.6% | +12.0% | No |
| Ballona Ln w/o Jefferson Bl [a] | - | * | - | - | 120 Trips | No |
| Braddock Drive b/w Sepulveda Bl & Huntley Av [a] | - | 68 | - | - | 120 Trips | No |

Note: [a] Weekday bidirectional daily volumes were not available at these street segments due to the COVID-19 Pandemic. In absence of volume data, the most conservative significance threshold of 120 Project-related trips was applied to determine if significant Project conditions occurred.

* A negligible number of Project trips

**TABLE 15
NEIGHBORHOOD STREET SEGMENT ANALYSIS - DAILY TRAFFIC VOLUME - FUTURE YEAR (2045) CONDITIONS**

| Location | Weekday Bidirectional Daily Volume | | | Segment Analysis | | |
|---|------------------------------------|--------------|-------------------------|------------------|------------------------|--------------------------------|
| | Future Year (2045) ADT | Project Only | Future plus Project ADT | % of Final ADT | Significance Threshold | Significant Project Condition? |
| Cota St b/w Jefferson Bl and Pickford Way | 877 | 28 | 905 | 3.1% | 120 Trips | No |
| Dobson Way b/w Jefferson Bl and Pickford Way | 2,322 | * | 2,322 | - | +10.0% | No |
| Janisann Ave b/w Sepulveda Bl and Kalein Dr | 798 | 82 | 880 | 9.3% | 120 Trips | No |
| Sawtelle Blvd b/w Stevens Av and Malat Way | 6,954 | 82 | 7,036 | 1.2% | +8.0% | No |
| Sawtelle Blvd b/w Sepulveda Blvd and Blanco Way | 12,466 | 54 | 12,520 | 0.4% | +8.0% | No |
| Segrell Way b/w Sawtelle Blvd and Berryman Av | 1,987 | * | 1,987 | - | +12.0% | No |
| Culver Park b/w Sawtelle Blvd and Berryman Av | 1,070 | * | 1,070 | - | +12.0% | No |
| Orville St b/w Sawtelle Blvd and Janisann Av | 712 | 82 | 794 | 10.3% | 120 Trips | No |
| Rhoda Way b/w Cota St and Kinston Av | 539 | 28 | 567 | 4.9% | 120 Trips | No |
| Virginia Ave b/w Pickford Way and Overland Av | 1,864 | 28 | 1,892 | 1.5% | +12.0% | No |
| Ballona Ln w/o Jefferson Bl [a] | - | * | - | - | 120 Trips | No |
| Braddock Drive b/w Sepulveda Bl & Huntley Av [a] | - | 68 | - | - | 120 Trips | No |

Note: [a] Weekday bidirectional daily volumes were not available at these street segments due to the COVID-19 Pandemic. In absence of volume data, the most conservative significance threshold of 120 Project-related trips was applied to determine if significant Project conditions occurred.

* A negligible number of Project trips

Parking Assessment

The Project would provide both vehicular and bicycle parking on-site. The Project’s construction would not remove any parking meters, as there are no parking meters along Project Site street frontages. The Project would also not propose any valet parking operations.

Parking Minimum Calculations

The following table shows the minimum number of off-street parking spaces that shall be provided and the proposed number of off-street parking spaces based on the proposed land uses:

| Proposed Land Use Type | Proposed Land Use Size | Required Number of Spaces ¹ | Total Number of Spaces Required | Total Number of Spaces Proposed |
|----------------------------------|------------------------|--|---------------------------------|---------------------------------|
| 2-Bedroom Units | 64 dwelling units | 2 spaces / dwelling unit ² | 128 | 294 |
| 1-Bedroom Units | 112 dwelling units | 1 space / dwelling unit ² | 112 | |
| Studio Units | 54 dwelling units | 1 space / dwelling unit ² | 54 | |
| Guest Parking | - | 0 spaces / dwelling unit ² | 0 | 14 |
| ECF Easement Parking | - | Agreed Upon Easement | 34 | 34 |
| Office | 11,450 s.f. | 1 space / 350 s.f. | 33 | 33 |
| Grocery | 38,600 s.f. | 1 space / 350 s.f. | 111 | 129 |
| Specialty Retail | 3,900 s.f. | 1 space / 350 s.f. | 12 | 8 |
| Health/Fitness | 1,950 s.f. | 1 space / 200 s.f. | 10 | 10 |
| Fast Food/Fast Casual Restaurant | 7,300 s.f. | 1 space / 75 s.f. | 98 | 98 |
| Sit-Down Restaurant | 3,300 s.f. | 1 space / 100 s.f. | 33 | 33 |
| Total: | - | - | 625 | 653 |

¹Source: City of Culver City Municipal Code Section 17.320.020.

²Source: California Government Code, Title 7, Division 1, Chapter 4.3, 65915.

The total number of parking spaces required in the residential/ECF parking garage would be 328 parking spaces. The Project would provide 342 parking spaces, leaving a surplus of 14 spaces for residential guest parking, which are not required. The total number of parking spaces required for the commercial uses of the Project would be 297 parking spaces. The Project would provide 311 spaces, a surplus of 14 parking spaces. Therefore, the proposed Project would provide vehicular parking spaces in compliance with relevant state and local codes and regulations. In accordance with Culver City Municipal Code, 20% of the required amount of parking spaces would be electric charging capable, 20% of the required amount of parking



spaces would be electric charging ready, and 10% of the spaces would have electric vehicle chargers installed.

The Project would also be required to provide adequate bicycle parking according to the Culver City Municipal Code, which is 10% of the required residential vehicular parking spaces, and 5% of the required commercial vehicular parking spaces, or 33 residential bicycle parking spaces and 30 commercial bicycle parking spaces, respectively. The Project proposes to install 71 short-term and 26 long-term bicycle parking spaces, which in total would be more than required for both types of parking. Therefore, the Project would provide bicycle parking spaces in compliance with the Culver City Municipal Code.

Bicycle racks for visitors would be available at the corner of Machado Road and Sepulveda Boulevard, the corner of Jefferson Boulevard and Sepulveda Boulevard, and within the surface parking area in front of the grocery store entrance. Bicycle lockers would be provided for residents in the subterranean parking level.

Transit Operations Analysis

Per the Culver City TSCG, the purpose of the transit operations analysis is to determine what effects the proposed Project may have on public transit demand, capacity, delay, and conditions. Because the Project would not be expected to generate more than 300 new vehicle trips in the PM peak hour or more than 3,000 new daily vehicle trips, per the TSCG, a quantitative or qualitative transit delay analysis would not be required.

Transit Demand and Capacity

As shown in **Table 4**, it is estimated that 5% of Project trips would utilize public transit. It is estimated that the Project would result in 17 (9 inbound/8 outbound) new transit trips in the AM peak hour, and 31 (16 inbound/15 outbound) new transit trips in the PM peak hour. According to **Figure 3** and available transit ridership data, the combined ridership of Culver CityBus Lines 4, 6, and 6R was approximately 2,275,240 total trips in 2019. Based on transit headways before the COVID-19 Pandemic, it is estimated up to 10 buses per hour would stop at bus stops along the Project frontage during both the AM and PM peak periods. By assuming a capacity of 83 seated and standing passengers per 40' long bus, the transit capacity that would serve the Project Site would be 830 passengers per hour during peak periods. Therefore, the Project's estimated transit trip generation would be represent approximately 3.7% of total existing transit capacity.

Hazardous Conditions Assessment

The intent of this assessment is to determine the potential for hazardous conditions for transit operations, vehicles, and users due to the Project's vehicular trip generation and Project design elements. Because Project driveways would be designed according to City standards and the total number of driveways would decrease from 10 to three, transit operations and safety would improve, as there would be fewer points of conflict between buses and vehicles. Project trips would only ingress/egress on Machado Road where there are no currently operating bus routes, or at Sepulveda Boulevard and Janisann Avenue, where movements would be signalized. This would improve safety for transit operations compared to existing conditions. The Project would also be designed to minimize obstructions to sightlines. Therefore, the Project would not worsen any hazardous conditions for transit operations.



Multimodal Safety Analysis

Per the City TSCG, proposed projects that are located on a priority safety corridor would be required to perform a multimodal safety analysis. If a project is determined to adversely affect the safety of a priority safety corridor, countermeasures would be evaluated to enhance safety conditions. The City defines a priority safety corridor as one on the High Injury Network (HIN), one identified in the Local Road Safety Plan (LRSP), or one identified by other analysis. At the time of this study, the LRSP had not yet been adopted, but available data from the Culver City Bicycle & Pedestrian Action Plan has identified the Sepulveda Boulevard and Jefferson Boulevard corridors in front of the Project Site as being on the HIN.

Collision Review

According to the Culver City Bicycle & Pedestrian Action Plan (Draft), 42 collisions took place along Sepulveda Boulevard, Machado Road, and Jefferson Boulevard near the Project Site between the years 2014-2018. The three currently signalized intersections directly surrounding the Project Site are among the top 30 intersections in the City for the number of collisions within the analysis period of 2014-2018. Below is a summary of collisions at these specific intersections. Intersection rankings were determined by number of collisions at a single intersection.

Jefferson Boulevard, Sepulveda Boulevard, & Sawtelle Boulevard

Of the three currently signalized intersections surrounding the Project Site, the intersection of Jefferson, Sepulveda, and Sawtelle Boulevards had the highest number of collisions. This intersection also had the 11th highest rate of collisions in Culver City. A total of 24 collisions took place at the intersection between 2014-2018. Of those collisions, none involved someone killed or severely injured, two involved people walking, and none involved people biking. Most collisions at Jefferson Boulevard and Sepulveda Boulevard were broadside collisions, otherwise known as "T-Bone", and head-on collisions. The primary collision factor for the majority of collisions were a failure to observe traffic signals and posted signs.

Jefferson Boulevard & Machado Road

The intersection of Jefferson Boulevard and Machado Road had the 24th highest rate of collisions in Culver City between 2014-2018, with 16 collisions in the five-year period. Of the 16 collisions, one involved a pedestrian and one collision involved a severe injury or fatality. The majority of collisions at Jefferson Boulevard and Machado Road were broadside collisions. The primary collision factor at this intersection was vehicle right-of-way violations.

Sepulveda Boulevard & Machado Road

The intersection of Sepulveda Boulevard and Machado Road has the 26th highest rate of collisions in Culver City with 15 collisions during the five-year period. Of those, one involved a pedestrian. Unsafe speed was the most noted primary collision factor. A large majority of collisions at this intersection were rear-end collisions.



Effects of Proposed Project on HIN

The proposed Project design would not impact either of the priority corridors nor inhibit future implementation of safety treatments as identified in the LRSP or other analyses. The Project proposes to install a new traffic signal at the Project Site driveway at Sepulveda Boulevard and Janisann Avenue. A new traffic signal would provide marked and signalized crosswalks at all legs of the intersection. Marked and controlled crosswalks do not currently exist at this intersection. Signalized crosswalks would improve safety for pedestrians wishing to cross Sepulveda Boulevard and/or Janisann Avenue, especially for those accessing the Project Site. Providing a traffic signal would also improve safety for motorists and cyclists making right and left turns at this intersection since a traffic signal would stop conflicting cross-street traffic. Therefore, the proposed Project would not worsen HIN corridor and intersection safety issues or preclude the City from implementing safety projects, and a proposed traffic signal could potentially improve safety for all roadway users in the area.

Construction Period Analysis

This section provides a construction period transportation analysis as required based on direction from City staff.

Anticipated Construction Activity

Construction of the Project is expected to take approximately 26 months to complete. The construction is anticipated to involve eight phases as described below. Prior to Project construction, traffic control and management plans would be required to be submitted and approved by the City, as discussed further below.

- (1) Phase 1 – Demolition & Clearing – Two months
- (2) Phase 2 – Site Preparation – One month
- (3) Phase 3 – Grading & Excavation – Three months
- (4) Phase 4 – Trenching – One month
- (5) Phase 5 – Foundation & Concrete Pour – Five months
- (6) Phase 6 – Building Construction – 13 months
- (7) Phase 7 – Paving – Two months
- (8) Phase 8 – Architectural Coatings – Two months



Construction Trucks

Haul Trucks and Route

Hauling activity is expected to occur during Phases 1, 2, 3, and 5 of construction. Up to 20 haul truckloads per day are anticipated on peak haul days during Phase 1. Up to 200 haul truckloads per day are anticipated on peak haul days during Phase 2 and Phase 3. Up to 600 haul truckloads per day are anticipated on peak haul days during Phase 5. These truckloads represent one-way trips under an unmitigated scenario. A proposed mitigation measure to address an air quality impact would result in no more than 240 one-way haul trips per day for any phase of construction.

Trucks are expected to be staged on-site. Haul trucks would typically utilize City truck routes such as Jefferson Boulevard and Sepulveda Boulevard to access the 10 and 405 freeways from the construction site. Trucks would not use Janisann Avenue to the west of the Project Site for any hauling, materials, or construction worker trips.

Equipment and Delivery Trucks

In addition to haul trucks, the Project Site is also expected to generate equipment and delivery trucks. One example would be concrete delivery. Other materials could include plumbing supplies, electrical fixtures, and items used in furnishing the building. These materials would be delivered to the Project Site and stored on-site. These deliveries are expected to occur in variously sized vehicles including small delivery trucks to cement mixer trucks and 18-wheel trucks. Additionally, construction equipment would have to be delivered to the Project Site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment is expected to be transported to the site on large trucks such as 18-wheelers or other similar vehicles. The following phases of construction are expected to involve the following number of equipment/delivery truckloads per day on peak activity days:

- (1) Phase 1 – Demolition & Clearing – 10 truckloads per day
- (2) Phase 2 – Site Preparation – 30 truckloads per day
- (3) Phase 3 – Grading & Excavation – 30 truckloads per day
- (4) Phase 4 – Trenching – 4 truckloads per day
- (5) Phase 5 – Foundation & Concrete Pour – 4 truckloads per day

Construction Employees

The number of construction workers would vary throughout the construction period. The following phases of construction are expected to involve up to the following number of workers on site per day on peak activity days:

- (1) Phase 1 – Demolition & Clearing – 20 workers
- (2) Phase 2 – Site Preparation – 30 workers



- (3) Phase 3 – Grading & Excavation – 30 workers
- (4) Phase 4 – Trenching – 20 workers
- (5) Phase 5 – Foundation & Concrete Pour – 120 workers
- (6) Phase 6 – Building Construction – 200 workers
- (7) Phase 7 – Paving – 20 workers
- (8) Phase 8 – Architectural Coatings – 40 workers

Construction Worker Parking

During the site preparation phase and the first portion of the building construction, while the parking levels are under construction, it is anticipated that construction employees would be parked on-site or off-site in a private parking lot. Potential off-site parking locations would be identified and approved by the City as part of the traffic control and management plans prior to construction. If the off-site parking location is beyond walking distance, the construction employees would be shuttled to the site. Once the underground parking structure component of the Project is complete, construction workers would be parked on-site.

Construction Hours

Culver City Municipal Code Section 9.07.035 provides that permitted construction activities are limited to the hours from 8:00 AM to 8:00 PM on weekdays, 9:00 AM to 7:00 PM on Saturdays, and 10:00 AM to 7:00 PM on Sundays.

Construction Management Measures

The following measures would be taken to minimize the effects of Project construction on nearby areas:

- Off-site haul truck staging would be provided in a legal area furnished by the construction truck contractor. The route to and from the Project Site will be identified in the Construction Management Plan. Trucks will not be permitted to travel along residential streets, such as Janisann Avenue. The community will be notified in accordance with City requirements.
- A flagger would be placed at the truck entry and exit from the Project Site to coordinate the entering and exiting trucks.
- Deliveries and pick-ups of construction materials would be scheduled during non-peak travel periods and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Access would remain unobstructed for land uses in proximity to the Project Site during Project construction.
- Any temporary travel lane closures, when needed, would be scheduled to avoid peak commuting hours and peak school pick-up and drop-off hours to the extent possible. In the event of a lane



closure, a worksite traffic control plan, approved by City of Culver City, would be implemented to route traffic around any such lane closures. Any impact on the public right of way such as parking, shoulder closure, lane closure, etc., must be approved by the City as part of the worksite traffic control plan in advance of the work.

Construction Management Plan

A Final Construction Management Plan (FCMP) shall be prepared by the Project contractor in consultation with the Project's traffic and/or civil engineer. The FCMP would define the scope and scheduling of construction activities as well as the Applicant's proposed construction site management responsibilities in order to ensure that disturbance of nearby land uses or interruption of pedestrian, vehicle, bicycle, and public transit are minimized to the extent feasible. The FCMP shall be subject to review and approval by the City's Building Official, City Traffic Engineer and Current Planning Manager, prior to issuance of any Project demolition, grading, or excavation permit. The FCMP shall also be reviewed and approved by the City's Fire and Police Departments. The City Building Official, City Engineer, City Traffic Engineer and Current Planning Manager, as applicable, would reserve the right to reject any engineer at any time and to require that the FCMP be prepared by a different engineer.

Prior to commencement of construction, the contractor shall advise the Public Works Inspector and Building Inspector (Inspectors) of the construction schedule and shall meet with the Inspectors. Also, biweekly construction management meetings with City staff and other representatives of surrounding developments if under construction at around the same time as the Project shall be required, as determined appropriate by City staff, to ensure concurrent construction projects are managed in collaboration with one another. The FCMP shall assess project construction impacts and provide effective strategies to limit the use of the public right of way (streets and sidewalks) during peak traffic periods and shall be subject to adjustment by City staff as deemed necessary and appropriate to preserve the general public safety and welfare.

Prior to approval of the FCMP, the applicant shall conduct one Community Meeting pursuant to the notification requirements of the City's Community Meeting guidelines, to discuss and provide the following information to the surrounding community:

- Construction schedule and hours.
- Framework for construction phases.
- Identify traffic diversion plan by phase and activity. (The Traffic Control Plan will be submitted for review and approval by the City for each phase).
- Potential location of construction parking and office trailers.
- Truck hauling routes and material deliveries (i.e. identify the potential routes and restrictions. Discuss the types and number of trucks anticipated and for what construction activity). Use of Janisann Avenue to the west of the Project Site by haul trucks, material deliveries, or construction worker vehicles would be specifically prohibited.
- Emergency access plan.



- Demolition plan.
- Staging plan for the concrete pours, material loading and removal.
- Crane location(s).
- Accessible applicant and contractor contacts during construction activity and during off hours (relevant email address and phone numbers).
- Community notification procedures.
- The FCMP shall at a minimum include the following:
 - a. The name and telephone number of a contact person who can be reached 24 hours a day regarding construction or construction traffic complaints or emergency situations.
 - b. An up-to-date list of local police, fire, and emergency response organizations and procedures for the continuous coordination of construction activity, potential delays, and any alerts related to unanticipated road conditions or delays, with local police, fire, and emergency response agencies. Coordination shall include the assessment of any alternative access routes that might be required through the site, and maps showing access to and within the site and to adjacent properties.
 - c. Construction plans and procedures to address: community and City notification of key construction activities; temporary construction fencing and maintenance of construction areas within public view; noise and vibration controls; dust management and control; and worker education on required management measures and best practices to reduce disturbances to adjacent and nearby land uses.
 - d. Procedures for the training and certification of flag persons.
 - e. To the extent known identification of the location, times, and estimated duration of any roadway closures; procedures for traffic detours, pedestrian protection, reducing effects on public transit and other transportation modes; and, plans for use of protective devices, warning signs, and staging or queuing areas.
 - f. The location of temporary power, portable toilet and trash and materials storage locations.
 - g. The timing and duration of any street and/or lane closures shall be approved in advance by the City and made available in digital format for posting on the City's website and distribution via email alerts on the City's "Gov Delivery" system. The Plans shall be updated weekly during the duration of project construction, as determined necessary by the City. The FCMP shall require that review and approval of any proposed lane closures include coordination with the Fire and Police Departments to minimize potential effects on traffic flow and emergency response.



- h. Provisions that staging of construction equipment and materials will be accommodated within the Project Site and that construction worker parking will be accommodated on the Project Site and at off-site locations to be determined and disclosed, potentially with shuttles to and from the Project Site.



5. Summary and Conclusions

This study was undertaken to analyze the potential transportation impacts of the proposed 11111 Jefferson development. The following summarizes the results of this analysis:

- The Project would involve the demolition of 35,011 sf of existing post office, restaurant, and auto service space and its replacement with 66,500 sf of new restaurant, gym, grocery, and retail space and 230 apartments. The three Project driveways would be located on Machado Road and Sepulveda Boulevard.
- The Project features, location, and design would be consistent with the City's plans, programs, ordinances, and policies that support alternative transportation and have been adopted to protect the environment. Therefore, the Project would have a less than significant impact on the City's transportation-related plans, programs, ordinances, and policies.
- The VMT analysis for the Project determined that the Project would not result in a significant impact in daily household VMT/capita. However, the Project would result in a potentially significant impact in daily commercial VMT/employee, without mitigation. The Project's proposed TDM measures would fully mitigate the significant impact. The Project also proposes additional voluntary TDM measures which would reduce Project traffic.
- The Project is not projected to substantially increase hazards, conflicts, or preclude City action to fulfill or implement projects associated with surrounding transportation networks and will contribute to overall walkability through enhancements to the Project site and streetscape. Therefore, the Project is expected to have a less than significant impact.
- The Project is not expected to have a direct or indirect effect that would lead to removal, modification, or degradation of pedestrian and bicycle facilities.
- The Project would establish bike lanes along the abutting segment of Sepulveda Boulevard between Machado Road and Jefferson Boulevard, as well as pay a pro-rata share towards the design and construction of bike lanes on Sepulveda Boulevard between Machado Road and the Ballona Creek Bike Path.
- The Project is proposing to relocate both bus stops along the Project Site frontages, one on northbound Sepulveda Boulevard, the other on southbound Jefferson Boulevard.
- The Project would generate an estimated 142 trips (67 inbound/75 outbound) in the morning peak hour and 274 trips (157 inbound/117 trips outbound) in the evening peak hour.
- The LOS analysis for the Existing plus Project, Opening Year plus Project, and Future plus Project scenarios determined that the proposed Project would result in LOS E/F conditions at several intersections selected for analysis.
- The queueing analysis determined that the proposed Project would result in intersection queues that would exceed storage capacity at several intersections selected for analysis.



- The street segment analysis for the Existing plus Project, Opening Year plus Project, and Future plus Project scenarios (using City of Culver City criteria) determined that the proposed Project would not result in TSCG significant project conditions along street segments selected for analysis.
- The Project would install a channelizing island on Heritage Place at Machado Road to prevent southbound through and left-turn movements at that intersection.
- The Project would install a traffic signal at the intersection of Sepulveda Boulevard, Janisann Avenue, and the Project Driveway would facilitate access into and out of the Project Site. It would also allow pedestrians to cross Sepulveda Boulevard more easily and safely. If the City chooses to proceed with a new signal at this intersection, additional engineering analysis and design consistent with City policies and other design guidelines would be required.
- The Project would provide adequate amounts of vehicular and bicycle parking in accordance with local and state regulations.
- The Project would generate 17 new transit trips in the AM peak hour and 31 new transit trips in the PM peak hour. The Project is estimated to utilize 3.7% of the total existing transit capacity along bus routes that serve the Project Site.
- The Project would not worsen any hazardous conditions for transit operations.
- The Project would not worsen HIN corridor and intersection safety issues or preclude the City of Culver City from implementing safety projects.



References

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City of Culver City, *Draft Bicycle & Pedestrian Action Plan*, 2020

City of Culver City, *Bicycle & Pedestrian Master Plan*, 2010

City of Culver City, *Land Use Element*, 2004

City of Culver City, *Municipal Code*

City of Culver City, *Short Range Transit Plan*, 2020

City of Culver City, *Transportation Study Criteria and Guidelines*, 2020

Institute of Transportation Engineers, *Trip Generation*, 10th Edition, 2017

San Diego Association of Governments *Not so Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, 2002

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



Appendix A: Memorandum of Understanding (MOU)

Memorandum of Understanding for Transportation Study

This Memorandum of Understanding (MOU) acknowledges and agrees to all the City of Culver City requirements and fees for the review of a transportation study for the following project.

Date Submitted: 9/18/2020 MOU Version # 2
 Project Name: 11111 Jefferson Boulevard Mixed-Used Project
 Project Address: 11111 Jefferson Bl
 Project Description: 3.43 acre site to be developed with a mix of residential and commercial uses

See Initial Study

| Land Use | Gross Floor Area (sq. ft.) <i>Defined per latest ITE publication</i> | Residential Units (#) |
|----------|---|-----------------------|
| | See Table 1 - Trip Generation | |
| | | |
| | | |

Project Horizon Year: 2023 Ambient Growth Rate (% per year): 1%
 Directional Distribution (%): N: S: E: W:

See Figures 3/4 - Trip Distribution

Trip Generation Rates: Show AM, PM and daily trip generation rates for each land use and attach total daily trips generation calculations. Indicate ITE Latest Edition/Other 10th Edition

| Land Use | ITE Code# | AM Trips | | PM Trips | | Daily Totals | |
|----------|-----------|----------|-----|----------|-----|--------------|-----|
| | | In | Out | In | Out | In | Out |
| | | | | | | | |
| | | | | | | | |

See Table 1 - Trip Generation

Study Intersections: Show all study intersections, intersections subject to capacity analysis credit for advanced traffic signal control synchronization, whether intersections are signalized or non-signalized, and use the same numbering system for all lists of intersections and figures in the study.

| No. | Intersection | Signalized/Non-Signalized | Jurisdiction |
|-----|--------------|---------------------------|--------------|
| | | | |
| | | | |

See Figure 2 - Study Intersections & Segments

Residential Streets: Show all residential streets to be studied.

| No. | Street Name | Limits | Jurisdiction |
|-----|-------------|--------|--------------|
| | | | |
| | | | |

See Figure 2 - Study Intersections & Segments

Intersection traffic counts taken in 2019 prior to the COVID-19 Pandemic.

Trip Credits: Indicate trip credits to be requested (subject to City approval)

| | Trip Credits | Yes/No |
|--|--------------|--------|
| Existing Uses | | Yes |
| Pass-By Trips | | Yes |
| Internal Trip Capture | | Yes |
| Transit-Oriented Development (TOD) | | No |
| Transportation Demand Management (TDM) | | Yes |

See Table 1 - Trip Generation

Related Projects: Before the start of any proposed project analysis, consultants shall:

1. Obtain a list of related projects from the Culver City Current Planning Division and other affected jurisdictions.
2. Prepare a draft list of "related projects specific to the proposed project."
3. Obtain written approval from the City of the "related projects specific to the proposed project."

Maps: The following maps shall be attached to the MOU:

1. A map showing the study intersections and street segments to be analyzed, including City limit lines where applicable.
2. A map showing the project's trip distribution percentages for each land use (inbound and outbound) on the area's road network.
3. A map showing the project's trip assignments at the study intersections and project driveways, as well as road segments when applicable.
4. A site plan of the project showing property lines, alleys, project's driveways and nearby driveways and intersections on both sides of the street including dimensions.

Proposed Mitigation and Transportation Improvements: Any proposed transportation improvement(s) or mitigation measure(s) shall be listed and accompanied by plans of the existing and proposed improvements, including city limit lines and existing and proposed property lines. . The City may initially accept conceptual plans to be included in the Transportation Study. Detailed design of such improvements will be part of the project's plans submittals.

Post-Occupancy Traffic Counts: By signing below, the Property Owner/ Developer/Applicant hereby agrees to pay for and submit to the City a post-occupancy traffic count analysis of the development to the satisfaction of the City. The analysis shall determine the amount of actual traffic (motor vehicle, bicycle, and pedestrian) generated by the development compared to the ITE trip generation rates. The analysis shall include a traffic count of all onsite driveways taken upon reaching eighty-five percent (85%) occupancy of the total building gross floor area or within one (1) year of the issuance of the first Temporary Certificate of Occupancy (TCO), as determined by the City. The data shall be used to confirm the findings in the approved study and not result in any additional traffic mitigation measures and/or conditions of approval on the subject project.

Fees: Payment of a fee to the City's PWD for the City's processing of the MOU shall be required before the City approves the MOU. Payment for review of the Transportation Study shall be paid before the City's PWD completes its review of the Transportation Study. Said fees shall be per the most recent Fee Schedule as approved by the City Council.

Applicant Information:

| | Property Owner/Applicant | Developer/Applicant | Traffic Consultant |
|------------------|------------------------------|------------------------------|--------------------------|
| Name | Jaqui Braver | Kyle Faulkner | Tom Gaul |
| Title | Managing Director | | Principal |
| Company | Jefferson Park, LLC | 3MR Capital | Fehr & Peers |
| Street Address | 345 California St, Suite 600 | 840 Apollo St., Suite 100 | 600 Wilshire, Suite 1050 |
| City, State, Zip | San Francisco, CA 94014 | El Segundo, CA 90245 | Los Angeles, CA 90017 |
| Office | (415) 580-6088 | (310) 508-3095 | (213) 261-3050 |
| Cell | | | |
| Fax | | | |
| Email | jbraver@tjbc.com | kyle.faulkner@3mrcapital.com | t.gaul@fehrandpeers.com |

Public Agency Information: If any of the intersection(s) to be studied as part of this study are located within the City of Los Angeles, the unincorporated areas of Los Angeles County and/or impact any other public agency (i.e., Caltrans), then this MOU shall also be approved by the reviewing staff representative from each agency:

| | City of Los Angeles | County of Los Angeles | Other Public Agency |
|------------------|---------------------|-----------------------|---------------------|
| Name | N/A | N/A | N/A |
| Title | | | |
| Company | | | |
| Street Address | | | |
| City, State, Zip | | | |
| Office | | | |
| Cell | | | |
| Fax | | | |
| Email | | | |

Signatures/Expiration: This MOU shall become valid as of the date of the City's signature and expire one year thereafter. If the administrative draft of the study has not been filed with the City by the expiration date, the MOU shall expire and a new MOU filing, fee, review, and approval process shall be required.

| | |
|--|-------------------------------------|
| <i>Jeanne Layan</i> | Date: 9/25/2020 2:53:39 PM CDT |
| Property Owner/Applicant | 9/25/20 |
| <i>Kyle Faulkner</i> Developer/Applicant | 9/22/2020 |
| Traffic Consultant | |
| <i>Heba El-Guindy</i> City of Culver City | <i>10/21/2020</i> |

Additional Information to be Included in Transportation Study:

Site Plan Review:

A site plan review will show a marked up plan showing passenger vehicles maneuvering within the site, and a delivery truck entering the grocery loading dock. The Project would propose three driveways: one commercial driveway on Machado Road west of Jefferson Boulevard, one signalized commercial driveway at Sepulveda Boulevard and Janisann Avenue, and one residential only driveway at Machado Road and Heritage Place. Turn pocket lengths will be determined based on available physical capacity and intersection analysis.

Number, location and type of control of the proposed will be reviewed.

Operations Analysis Scenarios:

We will analyze the Existing, Existing + Project, Opening Year, Opening Year + Project, Future Horizon Year, and Future Horizon Year + Project scenarios.

Parking:

No existing parking meters will be removed. On-site parking requirement calculations will be provided to ensure no spillover onto neighboring streets. Bicycle parking requirements will be calculated as well.

VMT Analysis:

A full VMT analysis using the Culver City VMT Calculator will be performed.

TDM Measures:

After a VMT analysis is performed, TDM measures would be proposed to mitigate potential VMT impacts and/or reduce VMT.

Traffic Calming Features:

The Project will analyze residential street segments for impacts. If any are found, the Applicant will work with city to determine if any traffic calming features are needed.

Multimodal Considerations:

An existing conditions review of vehicular, bicycle, transit, and pedestrian facilities will be included in the transportation study. Additional bicycle/pedestrian safety analysis will be included in the Safety Analysis section, additional transit capacity analysis will be included in the Transit Operations section, and bicycle/pedestrian access will be discussed in the Driveways section.

Construction Analysis:

Truck routes to and from the site will be identified, as well as expected number of truckloads during project construction.

This analysis will cover means to alleviate construction related traffic impacts on the roads and the surrounding community.

TABLE 1
JEFFERSON & SEPULVEDA PROJECT
ESTIMATED PROJECT TRIP GENERATION

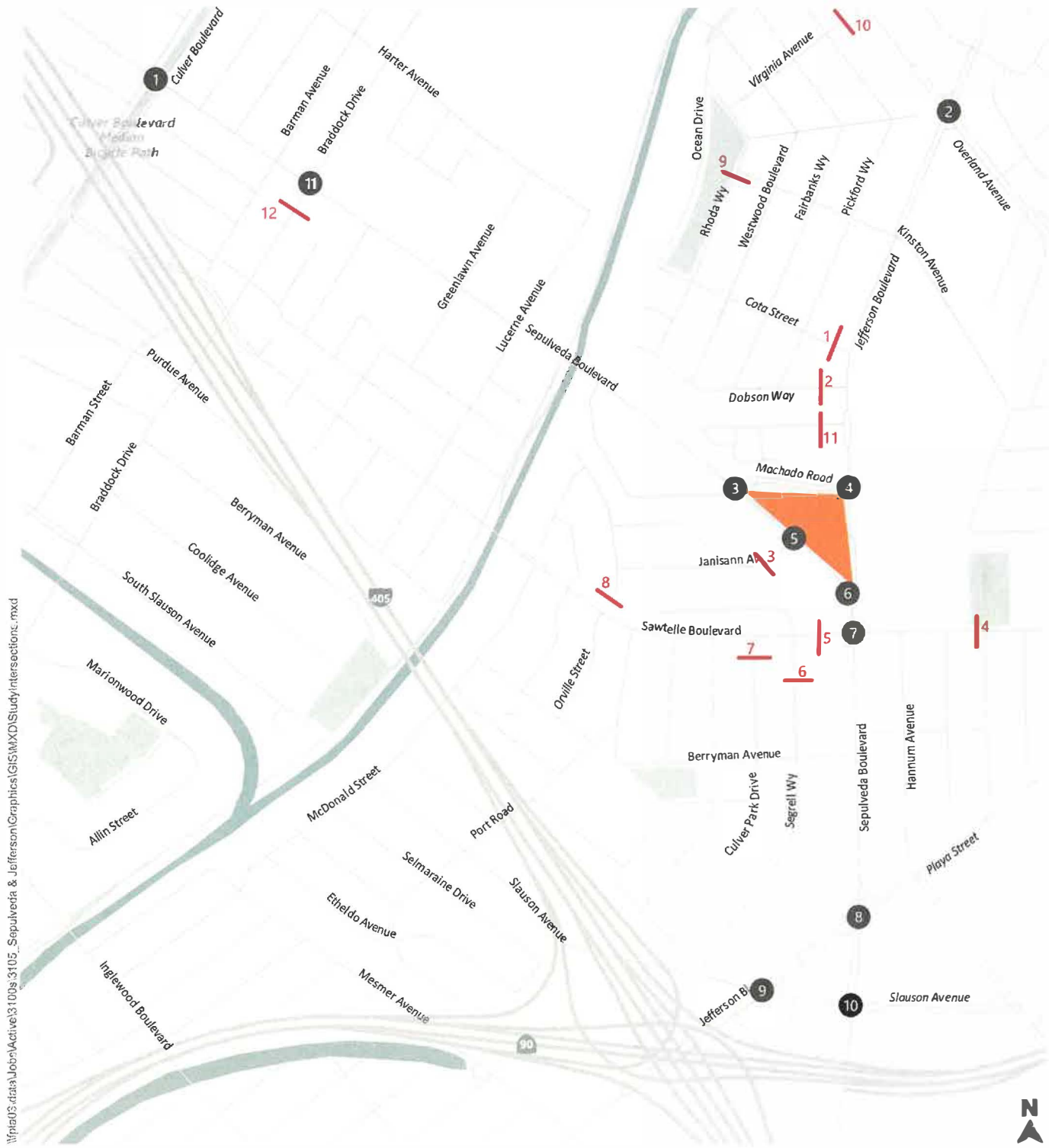
| Land Use | ITE Land Use Code | Size | Trip Generation Rates [a] | | | | | | Estimated Trip Generation | | | | | | |
|---|-------------------|------------|---------------------------|-----|------|--------------|-----|------|---------------------------|------|-------|--------------------|------|-------|--|
| | | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour Trips | | | PM Peak Hour Trips | | | |
| | | | Rate | In% | Out% | Rate | In% | Out% | In | Out | Total | In | Out | Total | |
| PROPOSED PROJECT | | | | | | | | | | | | | | | |
| Multifamily Housing (MidRise) | 221 | 230 DU | 0.36 | 26% | 74% | 0.44 | 61% | 39% | 22 | 61 | 83 | 62 | 39 | 101 | |
| Less: Internal capture [b] | | | 10% | | | 70% | | | (2) | (6) | (8) | (6) | (4) | (10) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | (1) | (2) | (3) | (2) | (2) | (4) | |
| Net External Vehicle Trips | | | | | | | | | 19 | 52 | 71 | 53 | 33 | 86 | |
| High-Turnover (Sit-Down) Restaurant | 932 | 3.30 ksf | 9.94 | 55% | 45% | 9.77 | 62% | 36% | 18 | 15 | 33 | 20 | 12 | 32 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | (2) | (2) | (4) | (2) | (1) | (3) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | (1) | (1) | (2) | (1) | (1) | (2) | |
| Total Driveway Trips | | | | | | | | | 15 | 12 | 27 | 17 | 10 | 27 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | (3) | (2) | (5) | (3) | (2) | (5) | |
| Net External Vehicle Trips | | | | | | | | | 12 | 10 | 22 | 14 | 8 | 22 | |
| Fast Casual Restaurant | 930 | 4.90 ksf | 2.07 | 67% | 33% | 14.13 | 55% | 45% | 7 | 3 | 10 | 38 | 31 | 69 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | (1) | 0 | (1) | (4) | (3) | (7) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | 0 | 0 | 0 | (2) | (1) | (3) | |
| Total Driveway Trips | | | | | | | | | 6 | 3 | 9 | 32 | 27 | 59 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | (1) | 0 | (1) | (6) | (5) | (11) | |
| Net External Vehicle Trips | | | | | | | | | 5 | 3 | 8 | 26 | 22 | 48 | |
| Fast Food | 933 | 2.40 ksf | 25.1 | 60% | 40% | 28.34 | 50% | 50% | 36 | 24 | 60 | 34 | 34 | 68 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | (4) | (2) | (6) | (3) | (3) | (6) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | (2) | (1) | (3) | (2) | (2) | (4) | |
| Total Driveway Trips | | | | | | | | | 30 | 21 | 51 | 33 | 29 | 62 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | (6) | (4) | (10) | (5) | (5) | (10) | |
| Net External Vehicle Trips | | | | | | | | | 24 | 17 | 41 | 24 | 24 | 48 | |
| Gym/Fitness Club | 492 | 1.95 ksf | 1.31 | 51% | 49% | 3.45 | 57% | 43% | 2 | 1 | 3 | 4 | 3 | 7 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Driveway Trips | | | | | | | | | 2 | 1 | 3 | 4 | 3 | 7 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net External Vehicle Trips | | | | | | | | | 2 | 1 | 3 | 4 | 3 | 7 | |
| Office | 710 | 11.45 ksf | 1.16 | 86% | 14% | 1.15 | 16% | 84% | 11 | 2 | 13 | 2 | 11 | 13 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | (1) | 0 | (1) | 0 | (1) | (1) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | (1) | 0 | (1) | 0 | (1) | (1) | |
| Net External Vehicle Trips | | | | | | | | | 9 | 2 | 11 | 2 | 9 | 11 | |
| Supermarket | 850 | 3860 ksf | 3.82 | 60% | 40% | 9.24 | 51% | 49% | 88 | 59 | 147 | 182 | 175 | 357 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | (9) | (6) | (15) | (18) | (17) | (35) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | (4) | (2) | (6) | (8) | (8) | (16) | |
| Total Driveway Trips | | | | | | | | | 75 | 50 | 125 | 156 | 149 | 305 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | (15) | (10) | (25) | (31) | (29) | (60) | |
| Net External Vehicle Trips | | | | | | | | | 60 | 40 | 100 | 125 | 120 | 245 | |
| Specialty Retail | [f] | 390 ksf | 1.2 | 60% | 40% | 3.6 | 50% | 50% | 3 | 2 | 5 | 7 | 7 | 14 | |
| Less: Internal capture [b] | | | 10% | | | 10% | | | 0 | 0 | 0 | (1) | (1) | (2) | |
| Less: Walk/Bike/Transit Adjustment [c] | | | 5% | | | 5% | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Driveway Trips | | | | | | | | | 3 | 2 | 5 | 6 | 6 | 12 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | 0 | 0 | 0 | (1) | (1) | (2) | |
| Net External Vehicle Trips | | | | | | | | | 3 | 2 | 5 | 5 | 5 | 10 | |
| TOTAL DRIVEWAY TRIPS | | | | | | | | | 159 | 143 | 302 | 299 | 266 | 565 | |
| TOTAL PROJECT EXTERNAL VEHICLE TRIPS | | | | | | | | | 134 | 127 | 261 | 253 | 224 | 477 | |
| EXISTING USE ADJUSTMENT | | | | | | | | | | | | | | | |
| High-Turnover (Sit-Down) Restaurant | 932 | 6.064 ksf | | | | | | | | | | | | | |
| Automotive Service Center | 930 | 1.722 ksf | | | | | | | | | | | | | |
| Post Office | 710 | 27.225 ksf | | | | | | | | | | | | | |
| TOTAL EXISTING DRIVEWAY TRIPS [e] | | | | | | | | | 83 | 64 | 147 | 120 | 133 | 253 | |
| Less: Pass-by Adjustment [d] | | | 20% | | | 20% | | | (16) | (12) | (28) | (24) | (26) | (50) | |
| TOTAL EXISTING TRIPS [e] | | | | | | | | | 67 | 52 | 119 | 96 | 107 | 203 | |
| NET INCREMENTAL EXTERNAL TRIPS | | | | | | | | | 67 | 75 | 142 | 157 | 117 | 274 | |

Notes:
 [a] Source: Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017.
 [b] According to City of Culver City Transportation Study Criteria & Guidelines, a 10% trip credit may be allowed for Internal Trip Capture for mixed-use developments.
 [c] A 5% Walk/Bike/Transit Credit was used based on the site's proximity to residential areas and connection to local transit lines.
 [d] According to City of Culver City Transportation Study Criteria & Guidelines, the average ITE rates for Pass-by trips for convenience-type land uses can be applied, up to a maximum of 25%.
 [e] 24-hour counts were taken on a typical business day at existing driveways at the proposed Project site in lieu of using estimated existing trips from ITE Trip Generation.
 [f] ITE 10th Edition trip generation rates are not available for small sized retail spaces, such as boutique stores or specialty retail stores. Trip generation rates were taken from SANDAG's (San Diego) Not so Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, 2002.



CONCEPTUAL - NOT FOR CONSTRUCTION.

Figure 1
Jefferson & Sepulveda Project
Site Plan



\\pna05\data\Job\Active\3100s\3105_Sepulveda & Jefferson\Graphics\GIS\MXD\Study\Intersections.mxd

- Project Site
- Study Intersections
- Study Segments



Figure 2

Jefferson & Sepulveda Project Study Area with Analyzed Intersections and Street Segments



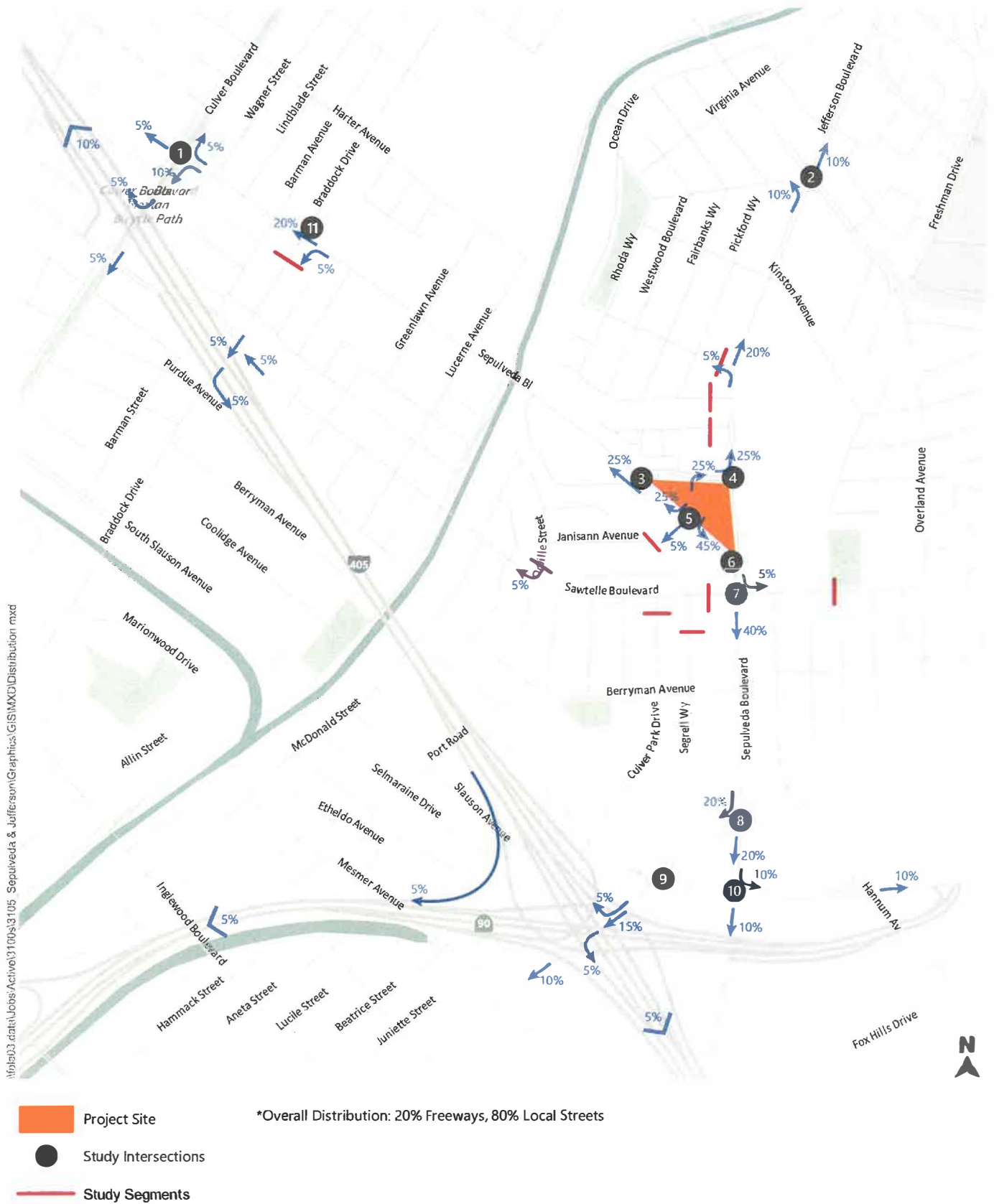


Figure 3
 Jefferson & Sepulveda Project
 Commercial Trip Distribution

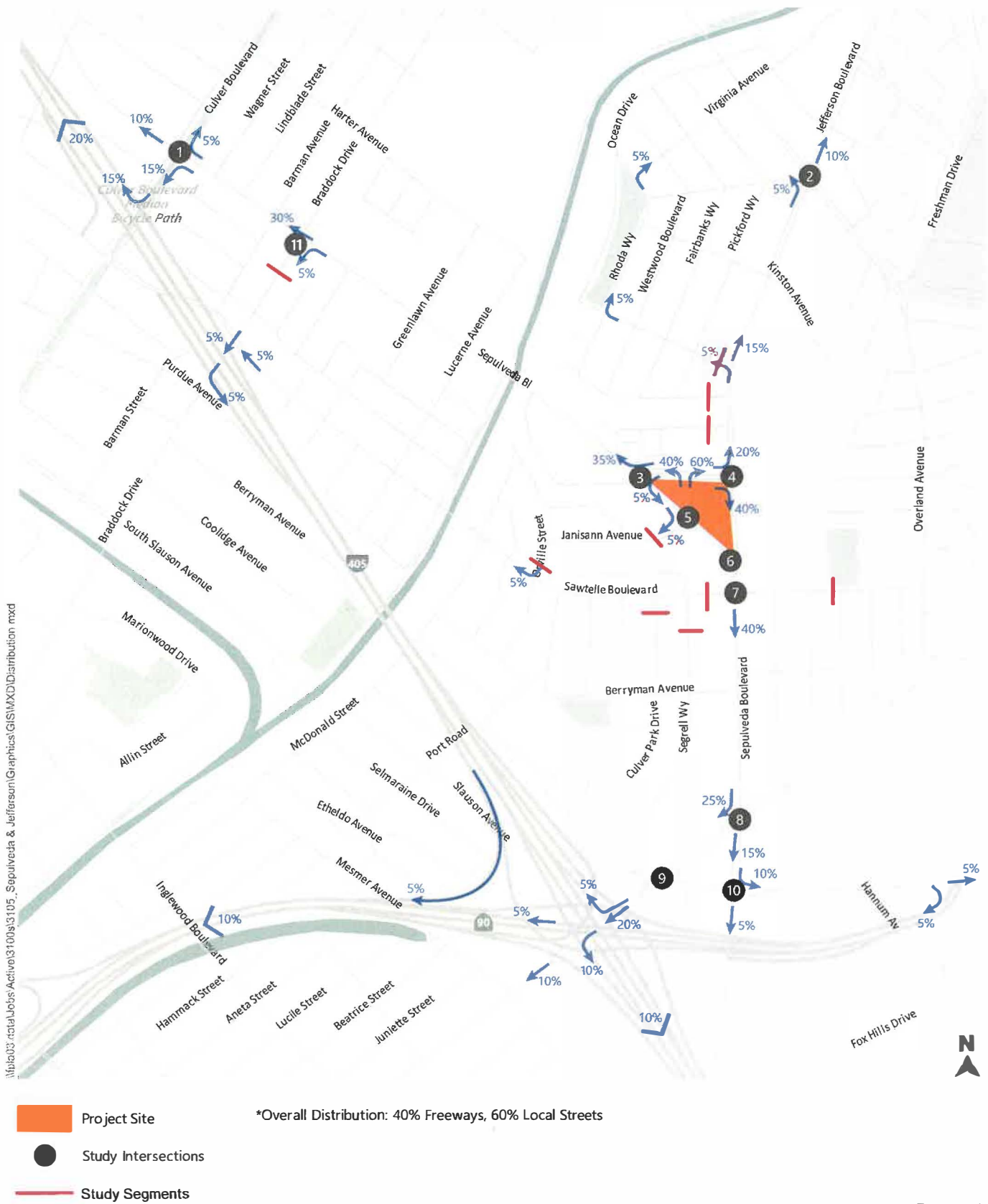


Figure 4
 Jefferson & Sepulveda Project
 Residential Trip Distribution

Appendix B: VMT Calculator Outputs



Project Name
11111 Jefferson Project

Project Parcel(s)
4215001016

| Project Screening | |
|---|--------|
| | Yes/No |
| Is this project within 1/2 mile of one of the following transit hubs? - Culver City Expo Station - La Cienega/Jefferson Expo Station - Westfield-Culver City Transit Center - Sepulveda/Venice intersection | No |
| Is the project located within any TPA and are at least 15% of the on-site residential units are affordable? | No |
| Does this project generate fewer than 250 daily trips? | No |
| Is the retail component of project fewer than 50,000 square feet in size at every store? | Yes |
| Is this residential component of the project 100% affordable housing? | No |

Analysis is required. This project does not meet screening criteria. No separate analysis is required for retail.

| Project Land Use | |
|----------------------------|--------------------|
| Residential | Value (du) |
| Single Family | 0 |
| Multi-Family | 211 |
| Affordable Housing | |
| Family | 19 |
| Senior | 0 |
| Special Needs | 0 |
| Permanent Supportive | 0 |
| Office | Value (ksf) |
| Standard | 11.450 |
| Medical | Value (ksf) |
| Medical Office | 0.000 |
| Hospital | 0.000 |
| Industrial | Value (ksf) |
| Light Industrial | 0.000 |
| Manufacturing | 0.000 |
| Warehousing / Self-Storage | 0.000 |
| Movie Studio | Value (ksf) |
| Office | 0.000 |
| Post Production | 0.000 |
| Stage | 0.000 |
| Support | 0.000 |

The following land uses will require separate impact analysis (outside of this tool) if not screened out. Please leave the land uses in the table below if they are part of a mixed use project.

| Retail | Value (ksf) |
|-----------------------------|--------------|
| General | 3.900 |
| Supermarket | 38.600 |
| Bank | 0.000 |
| Health Club | 1.950 |
| Gas Station | 0.000 |
| Auto Repair | 0.000 |
| Home Improvement Superstore | 0.000 |
| Free-Standing Discount | 0.000 |
| Restaurant Non-fast-food | 8.200 |
| Restaurant Fast-food | 2.400 |
| Value (seats) | 0.000 |

| Hotel | Value (rooms) |
|-------|---------------|
| Hotel | 0 |
| Motel | 0 |

| School | Value (students) |
|---------------|------------------|
| University | 0 |
| High School | 0 |
| Middle School | 0 |
| Elementary | 0 |

| Proposed Project Summary | Total Daily | | Household VMT | | | Work VMT | | | | |
|---------------------------------------|---------------------------|-----------------------------|---------------------|------------------------|---------------------------------|--------------------------|-----------------------|--------------------------|---------------------------------|--------------------------|
| | Trips | VMT | City VMT per capita | Project VMT per capita | Project vs. City Difference (%) | Significant VMT Impact?* | City VMT per employee | Project VMT per employee | Project vs. City Difference (%) | Significant VMT Impact?* |
| Proposed Project | 4,934 | 32,774 | 8.3 | 5.7 | -31.3% | No | 10.1 | 9.2 | -8.9% | Yes |
| Proposed Project w/ Mitigation | 4,641 4,906 | 30,812 32,588 | 8.3 | 5.2 5.5 | -37.3% -33.7% | No | 10.1 | 8.4 | -16.8% | No |

*A significant impact occurs unless the project metric is 15% or more below the City metric. For VMT per capita, the project metric must be below 7.1 for VMT per employee the project must be below 8.6.

The proposed Project would result in a significant VMT/employee impact, while the retail uses would be screened out from analysis. The proposed Commute Marketing Program mitigation on the following page would apply to both employees and residents of all uses, while the proposed Off-Street Parking Pricing mitigation would only apply to the office use. These two mitigations would mitigate the significant VMT impact.

For calculating total daily trips and VMT, the parking pricing mitigation VMT reduction was applied to the separated office use daily trip generation. The VMT Calculator allows for a 5.5% reduction in VMT for applying the parking pricing mitigation. It was estimated that this would reduce the office use daily trips by 5. This reduction was then applied to the Total Daily Trips and VMT calculated for the entire Project with just the commute marketing program mitigation applied, see page 3. This calculation would conservatively isolate the parking pricing mitigation effects on daily trips and VMT to just the office component.



Transportation Demand Management Strategies

TDM VMT Adjustments Summary

| | Residential | Office/Retail/Other | Combined Total |
|--------------------------------|------------------|---------------------|------------------|
| Proposed Project | -0.1% | -0.1% | -0.1% |
| Proposed Project w/ Mitigation | -0.6% | -5.8% | -6.1% |
| | -3.3% | | -5.5% |

MEASURE TYPE

TDM MEASURE INPUT

TDM VMT Adjustments

Parking

| | | | | | |
|--|------|--|---------------------|----|------------------|
| Off-Street Parking Pricing | | | | | |
| <input checked="" type="checkbox"/> mitigation | \$ 0 | Baseline Off-Street Cost (\$/space) | Residential | 0% | -5.5% |
| | \$ 3 | Proposed Off-Street Cost (\$/space) (\$/day) | Office/Retail/Other | | -5.5% |
| On-Street Parking Pricing | | | | | |
| <input type="checkbox"/> proposed project | \$ 0 | Baseline On-Street Cost (\$/space) | Residential | | |
| | \$ 0 | Proposed On-Street Cost (\$/space) | Office/Retail/Other | | |
| Parking Supply | | | | | |
| <input type="checkbox"/> proposed project | 0 | Required Number of Spaces (for resident) | Residential | | |
| | 0 | Proposed Number of Spaces (for resident) | | | |

Transit

| | | | | | |
|---|-----------------------------------|------------------------------|---------------------|--|--|
| Transit Frequency | | | | | |
| <input type="checkbox"/> proposed project | 9 | Baseline Frequency (minutes) | Residential | | |
| | 5 | Proposed Frequency (minutes) | Office/Retail/Other | | |
| Point-to-point Shuttles | | | | | |
| <input type="checkbox"/> mitigation | Select to include in the project. | | Office/Retail/Other | | |
| Last Mile Shuttles | | | | | |
| <input type="checkbox"/> mitigation | Select to include in the project. | | Office/Retail/Other | | |

Commute Trip Reductions

| | | | | | |
|--|---|------------------------------------|---------------------|-------------------------------|-------|
| Commute Marketing Program | | | | | |
| <input checked="" type="checkbox"/> mitigation | <input checked="" type="checkbox"/> Employees | | Residential | | -3.2% |
| | <input checked="" type="checkbox"/> Residents | | Office/Retail/Other | | -0.3% |
| Financial Commuter Incentives | | | | | |
| <input type="checkbox"/> proposed project | You may choose only one Financial Commuter Strategy, Commuter Incentives or Transit Subsidies | | Residential | | |
| | <input type="checkbox"/> Commuter Incentives | \$ 0 per 0 | Office/Retail/Other | | |
| | | \$ 0 per 0 | | | |
| | | | | | |
| | <input type="checkbox"/> Transit Subsidies | <input type="checkbox"/> Employees | 0% | Percentage of Cost Subsidized | |
| | | <input type="checkbox"/> Residents | 0% | Percentage of Cost Subsidized | |

Site Design

| | | | | | |
|--|-----------------------------------|--|---------------------|--|-------|
| Pedestrian-Oriented Design | | | | | |
| <input checked="" type="checkbox"/> proposed project | Select to include in the project. | | Residential | | -0.1% |
| | | | Office/Retail/Other | | -0.1% |



| | |
|---|--------------------------|
| Project Name | Project Parcel(s) |
| 11111 Jefferson Project (Partially Mitigated) | 4215001016 |

| Project Screening | |
|---|--------|
| | Yes/No |
| Is this project within 1/2 mile of one of the following transit hubs? - Culver City Expo Station - La Cienega/Jefferson Expo Station - Westfield-Culver City Transit Center - Sepulveda/Venice intersection | No |
| Is the project located within any TPA and are at least 15% of the on-site residential units are affordable? | No |
| Does this project generate fewer than 250 daily trips? | No |
| Is the retail component of project fewer than 50,000 square feet in size at every store? | Yes |
| Is this residential component of the project 100% affordable housing? | No |

Analysis is required. This project does not meet screening criteria. No separate analysis is required for retail.

| Project Land Use | |
|----------------------------|--------------------|
| Residential | Value (du) |
| Single Family | 0 |
| Multi-Family | 211 |
| Affordable Housing | |
| Family | 19 |
| Senior | 0 |
| Special Needs | 0 |
| Permanent Supportive | 0 |
| Office | Value (ksf) |
| Standard | 11.450 |
| Medical | Value (ksf) |
| Medical Office | 0.000 |
| Hospital | 0.000 |
| Industrial | Value (ksf) |
| Light Industrial | 0.000 |
| Manufacturing | 0.000 |
| Warehousing / Self-Storage | 0.000 |
| Movie Studio | Value (ksf) |
| Office | 0.000 |
| Post Production | 0.000 |
| Stage | 0.000 |
| Support | 0.000 |

The following land uses will require separate impact analysis (outside of this tool) if not screened out. Please leave the land uses in the table below if they are part of a mixed use project.

| Retail | Value (ksf) |
|-----------------------------|------------------|
| General | 3.900 |
| Supermarket | 38.600 |
| Bank | 0.000 |
| Health Club | 1.950 |
| Gas Station | 0.000 |
| Auto Repair | 0.000 |
| Home Improvement Superstore | 0.000 |
| Free-Standing Discount | 0.000 |
| Restaurant Non-fast-food | 8.200 |
| Restaurant Fast-food | 2.400 |
| Value (seats) | 0.000 |
| Theater w/ Matinee | 0.000 |
| Hotel | Value (rooms) |
| Hotel | 0 |
| Motel | 0 |
| School | Value (students) |
| University | 0 |
| High School | 0 |
| Middle School | 0 |
| Elementary | 0 |

| Proposed Project Summary | Total Daily | | Household VMT | | | | Work VMT | | | |
|--------------------------------|-------------|--------|---------------------|------------------------|---------------------------------|--------------------------|-----------------------|--------------------------|---------------------------------|--------------------------|
| | Trips | VMT | City VMT per capita | Project VMT per capita | Project vs. City Difference (%) | Significant VMT Impact?* | City VMT per employee | Project VMT per employee | Project vs. City Difference (%) | Significant VMT Impact?* |
| Proposed Project | 4,934 | 32,774 | 8.3 | 5.7 | -31.3% | No | 10.1 | 9.2 | -8.9% | Yes |
| Proposed Project w/ Mitigation | 4,911 | 32,605 | 8.3 | 5.5 | -33.7% | No | 10.1 | 8.9 | -11.9% | Yes |

See fully mitigated VMT Output

*A significant impact occurs unless the project metric is 15% or more below the City metric. For VMT per capita, the project metric must be below 7.1 for VMT per employee the project must be below 8.6.

This VMT calculation reflects the entire Project with only the Commute Marketing Program mitigation applied. The calculated trips and VMT here were then used to form the baseline in which to calculate the reduction in trips and VMT for the Project if the Off-Street Parking Pricing mitigation were applied to just the proposed office component. See first page.



Transportation Demand Management Strategies

TDM VMT Adjustments Summary

| | Residential | Office/Retail/Other | Combined Total |
|--------------------------------|-------------|---------------------|----------------|
| Proposed Project | -0.1% | -0.1% | -0.1% |
| Proposed Project w/ Mitigation | -3.3% | -0.4% | -0.6% |

MEASURE TYPE

TDM MEASURE INPUT

TDM VMT Adjustments

Parking

Off-Street Parking Pricing

| | | | | |
|-------------------------------------|------|-------------------------------------|---------------------|--|
| <input type="checkbox"/> mitigation | \$ 0 | Baseline Off-Street Cost (\$/space) | Residential | |
| | \$ 0 | Proposed Off-Street Cost (\$/space) | Office/Retail/Other | |

On-Street Parking Pricing

| | | | | |
|---|------|------------------------------------|---------------------|--|
| <input type="checkbox"/> proposed project | \$ 0 | Baseline On-Street Cost (\$/space) | Residential | |
| | \$ 0 | Proposed On-Street Cost (\$/space) | Office/Retail/Other | |

Parking Supply

| | | | | |
|---|---|--|-------------|--|
| <input type="checkbox"/> proposed project | 0 | Required Number of Spaces (for resident) | Residential | |
| | 0 | Proposed Number of Spaces (for resident) | | |

Transit

Transit Frequency

| | | | | |
|---|---|------------------------------|---------------------|--|
| <input type="checkbox"/> proposed project | 9 | Baseline Frequency (minutes) | Residential | |
| | 5 | Proposed Frequency (minutes) | Office/Retail/Other | |

Point-to-point Shuttles

| | | | | |
|-------------------------------------|-----------------------------------|--|---------------------|--|
| <input type="checkbox"/> mitigation | Select to include in the project. | | Office/Retail/Other | |
|-------------------------------------|-----------------------------------|--|---------------------|--|

Last Mile Shuttles

| | | | | |
|-------------------------------------|-----------------------------------|--|---------------------|--|
| <input type="checkbox"/> mitigation | Select to include in the project. | | Office/Retail/Other | |
|-------------------------------------|-----------------------------------|--|---------------------|--|

Commute Trip Reductions

Commute Marketing Program

| | | | |
|--|---|---------------------|-------|
| <input checked="" type="checkbox"/> mitigation | <input checked="" type="checkbox"/> Employees | Residential | -3.2% |
| | <input checked="" type="checkbox"/> Residents | Office/Retail/Other | -0.3% |

Financial Commuter Incentives

| | | | | |
|---|---|--|---------------------|--|
| <input type="checkbox"/> proposed project | You may choose only one Financial Commuter Strategy, Commuter Incentives or Transit Subsidies | | Residential | |
| | | | Office/Retail/Other | |

| | | | |
|--|----------|---|--|
| <input type="checkbox"/> Commuter Incentives | \$ 0 per | 0 | Financial Incentive (\$/day or \$/month) |
| | \$ 0 per | 0 | Average Baseline Commute Cost (\$/day or \$/month) |

| | | | |
|--|------------------------------------|----|-------------------------------|
| <input type="checkbox"/> Transit Subsidies | <input type="checkbox"/> Employees | 0% | Percentage of Cost Subsidized |
| | <input type="checkbox"/> Residents | 0% | Percentage of Cost Subsidized |

Site Design

Pedestrian-Oriented Design

| | | | |
|--|-----------------------------------|---------------------|-------|
| <input checked="" type="checkbox"/> proposed project | Select to include in the project. | Residential | -0.1% |
| | | Office/Retail/Other | -0.1% |

Appendix C: Operations Analysis Counts

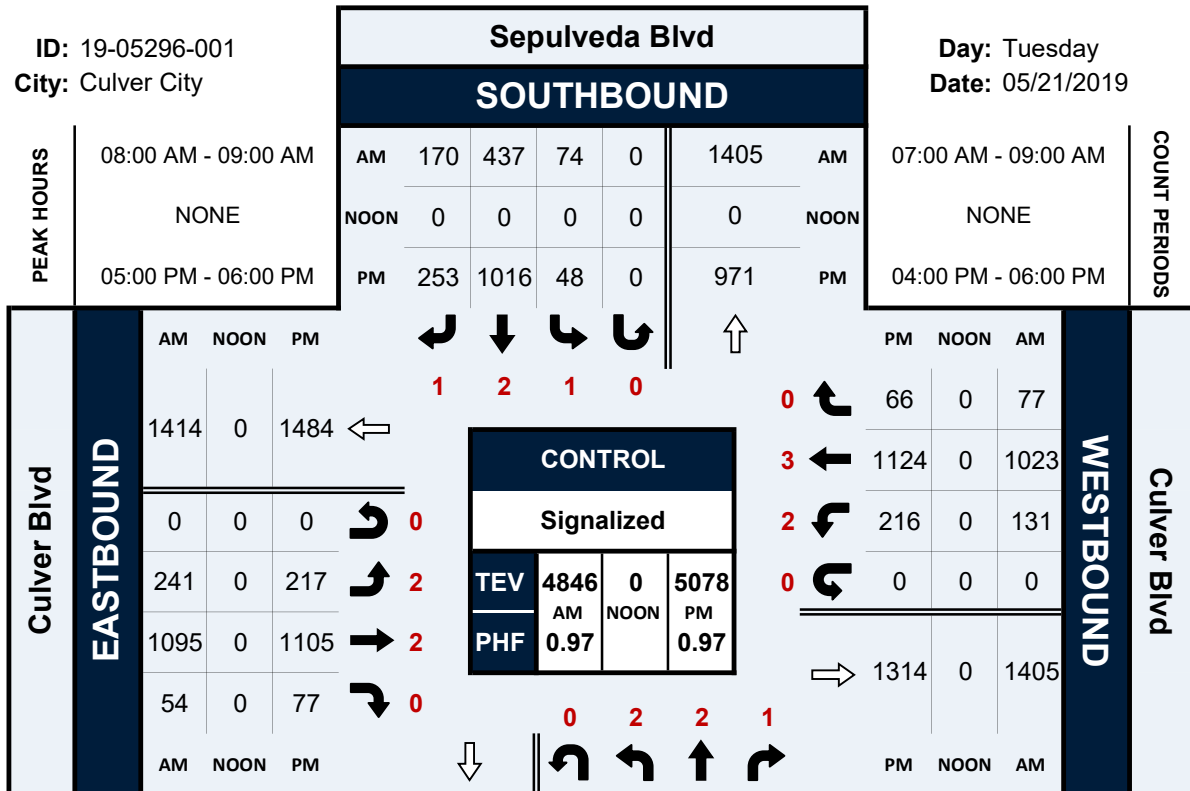
Intersection Counts

Sepulveda Blvd & Culver Blvd

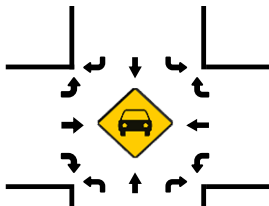
Peak Hour Turning Movement Count

ID: 19-05296-001
City: Culver City

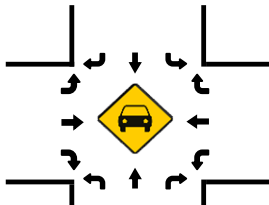
Day: Tuesday
Date: 05/21/2019



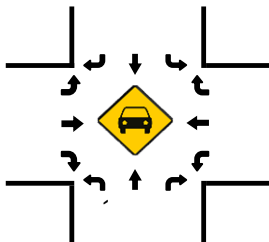
Total Vehicles (AM)



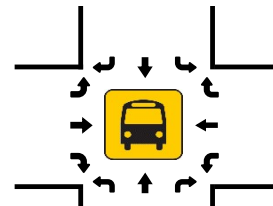
Total Vehicles (NOON)



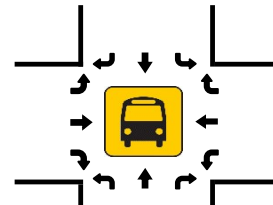
Total Vehicles (PM)



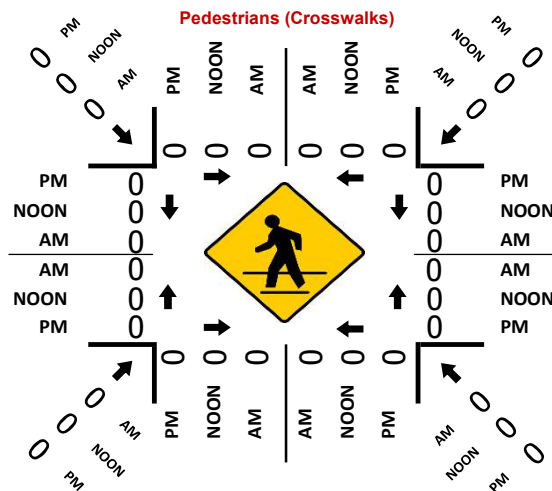
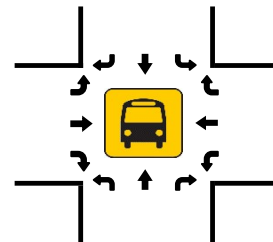
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

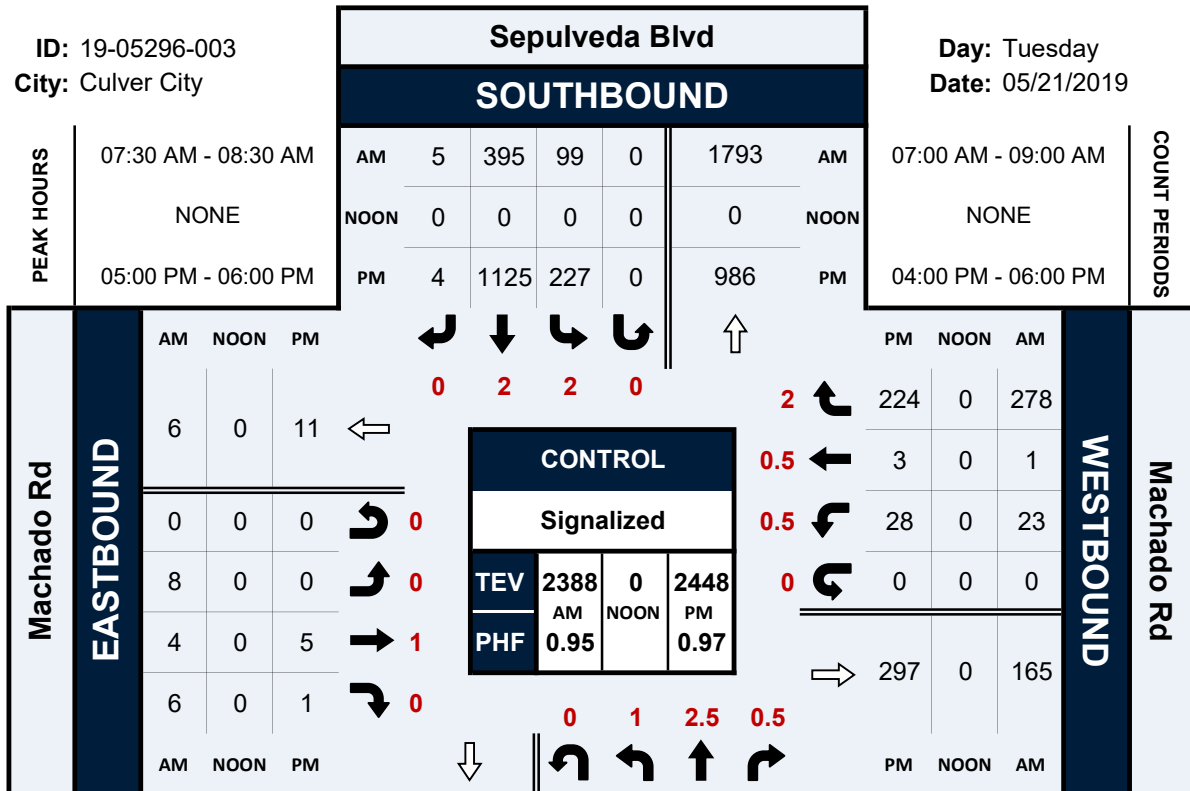


Sepulveda Blvd & Machado Rd

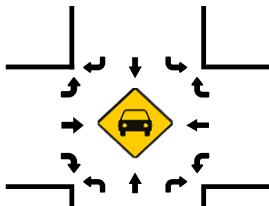
Peak Hour Turning Movement Count

ID: 19-05296-003
City: Culver City

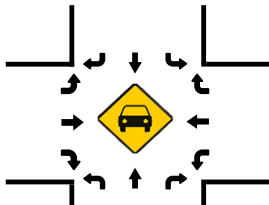
Day: Tuesday
Date: 05/21/2019



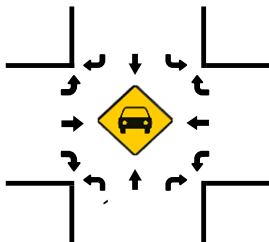
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

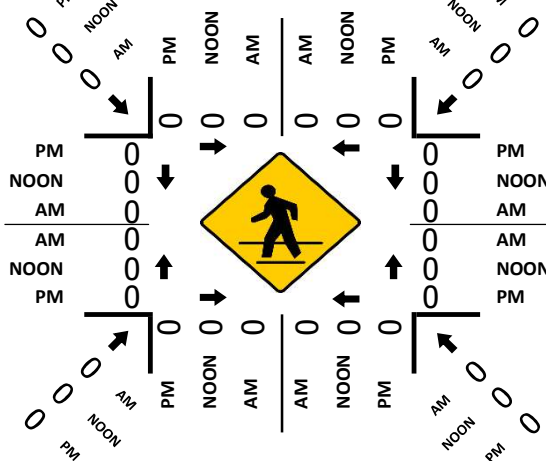


NORTHBOUND

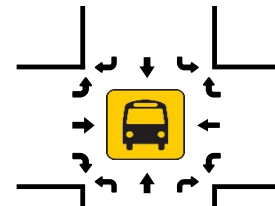
Sepulveda Blvd

| | | | | | | |
|------|------|---|---|------|----|------|
| PM | 1154 | 0 | 4 | 762 | 65 | PM |
| NOON | 0 | 0 | 0 | 0 | 0 | NOON |
| AM | 424 | 0 | 0 | 1507 | 62 | AM |

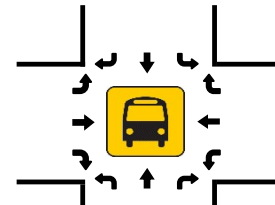
Pedestrians (Crosswalks)



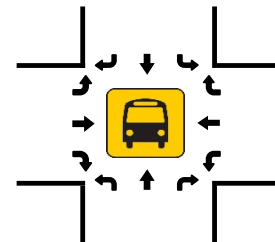
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

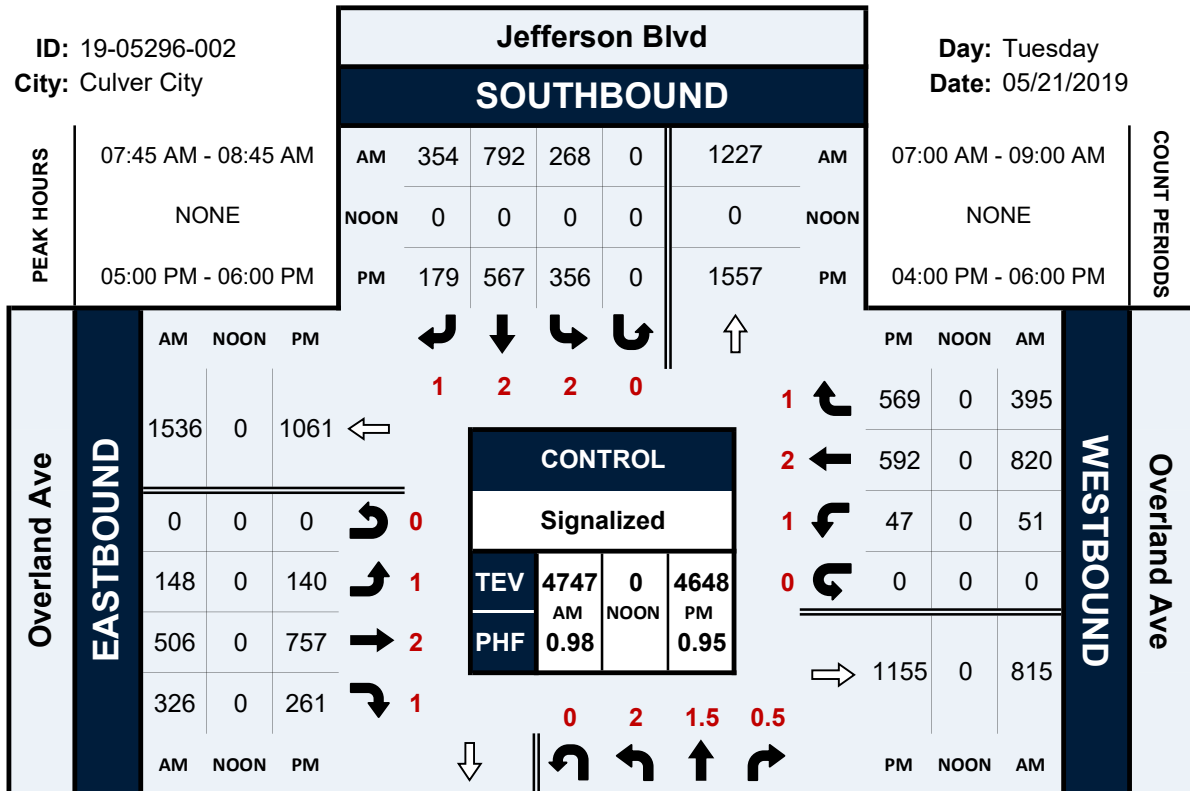


Jefferson Blvd & Overland Ave

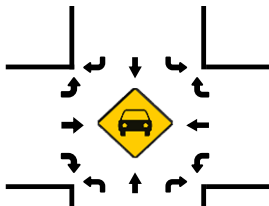
Peak Hour Turning Movement Count

ID: 19-05296-002
City: Culver City

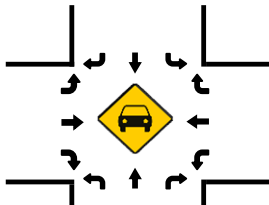
Day: Tuesday
Date: 05/21/2019



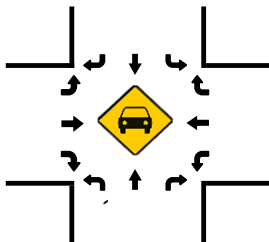
Total Vehicles (AM)



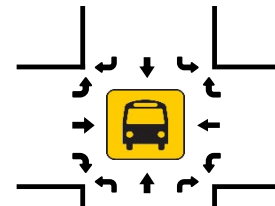
Total Vehicles (NOON)



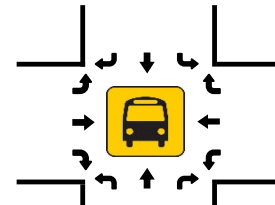
Total Vehicles (PM)



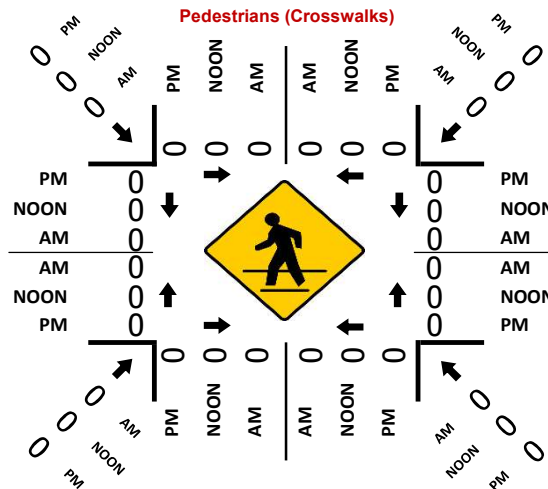
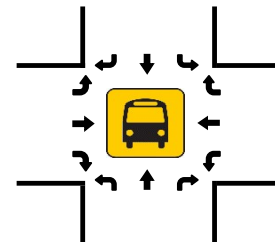
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

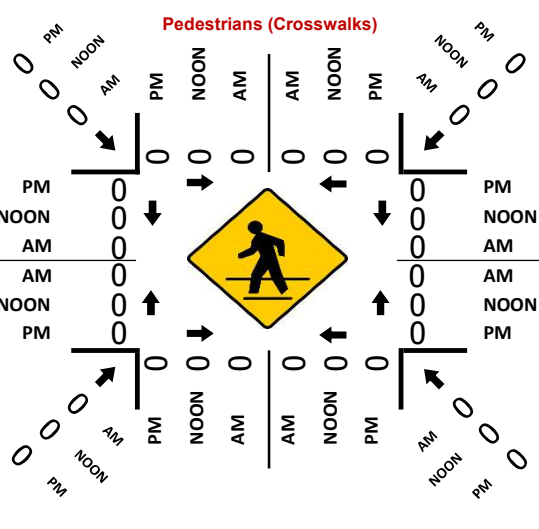
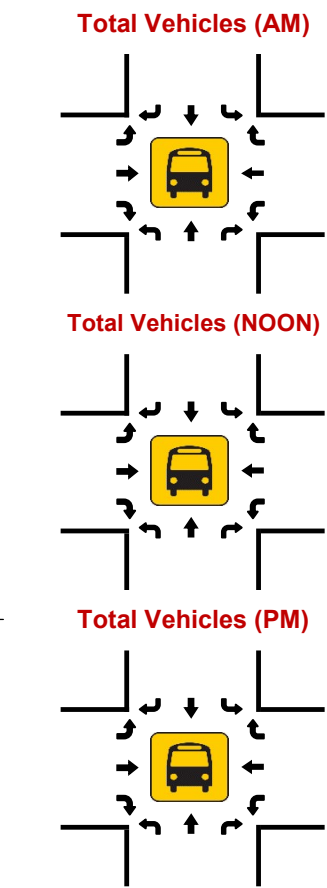
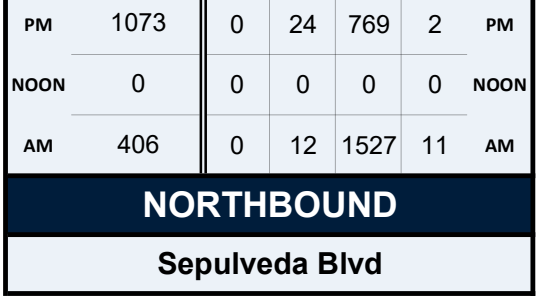
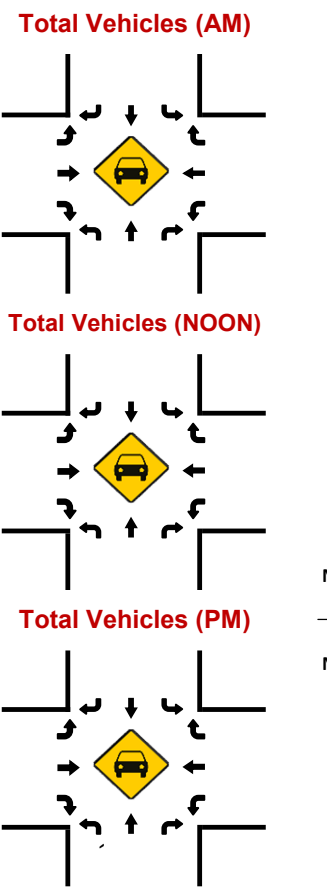
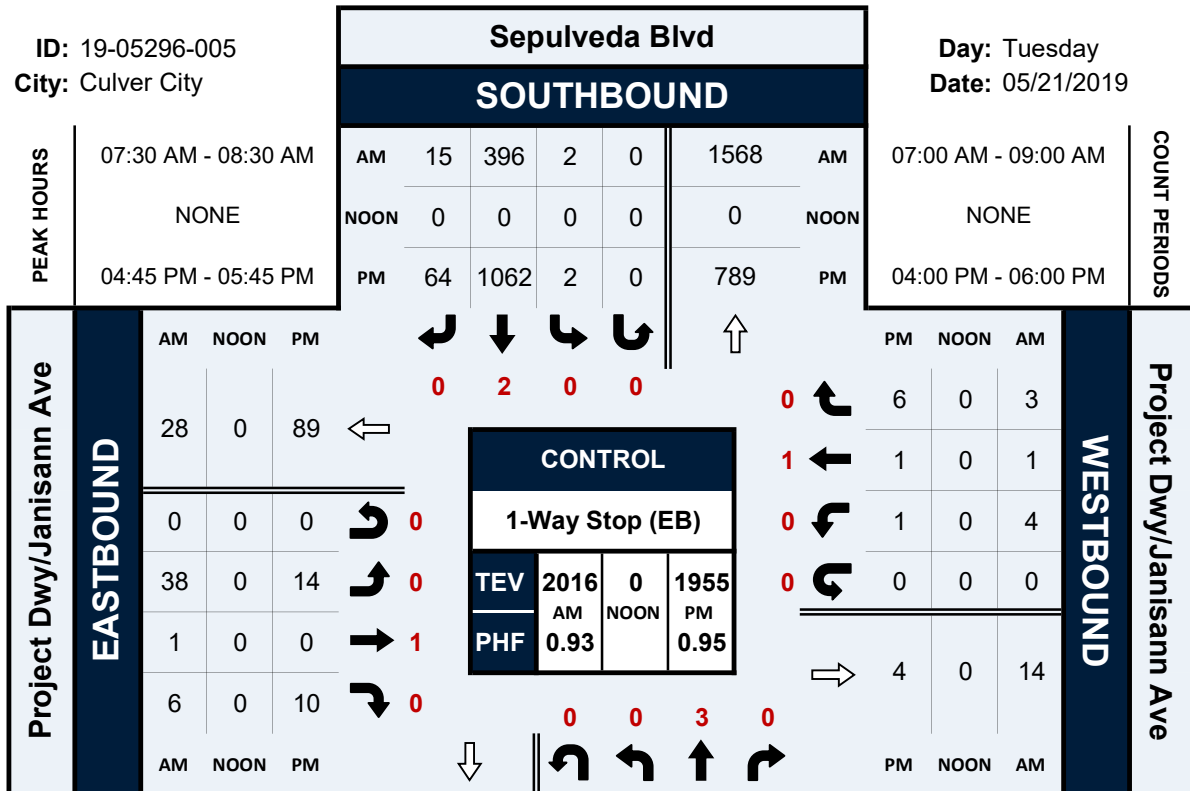


Sepulveda Blvd & Project Dwy/Janisann Ave

Peak Hour Turning Movement Count

ID: 19-05296-005
City: Culver City

Day: Tuesday
Date: 05/21/2019

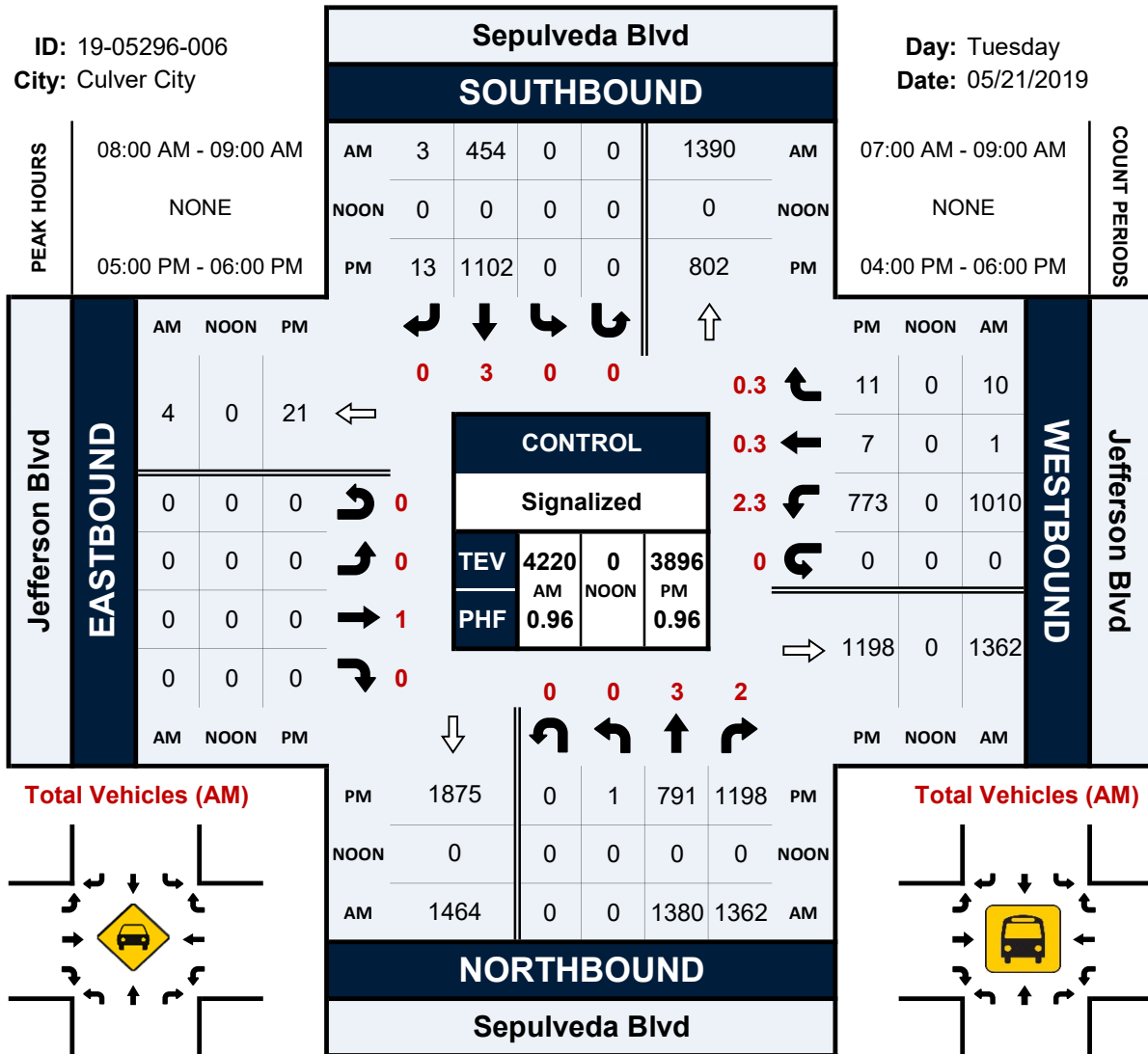


Sepulveda Blvd & Jefferson Blvd

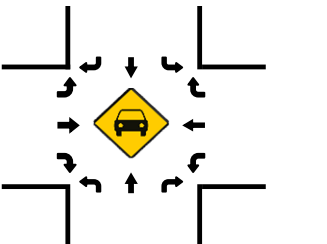
Peak Hour Turning Movement Count

ID: 19-05296-006
City: Culver City

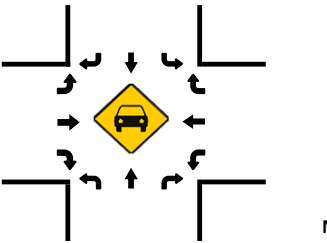
Day: Tuesday
Date: 05/21/2019



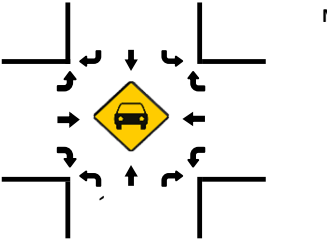
Total Vehicles (AM)



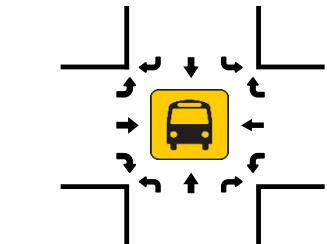
Total Vehicles (NOON)



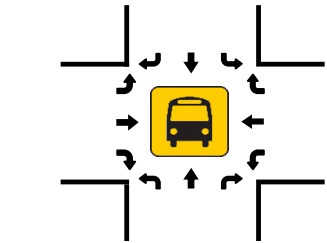
Total Vehicles (PM)



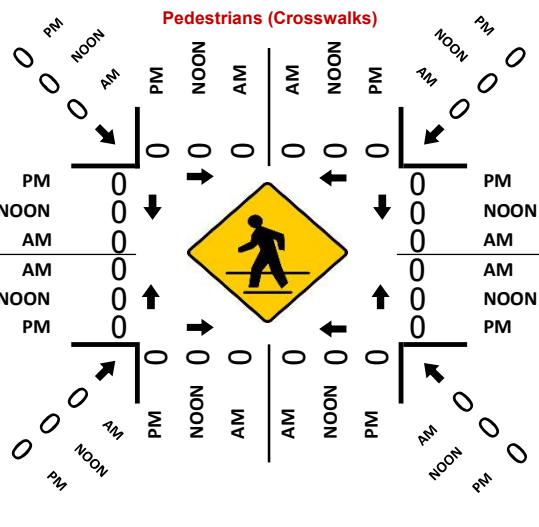
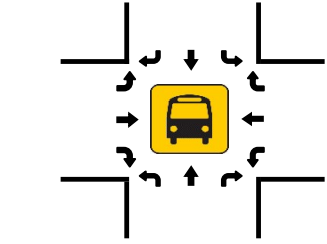
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

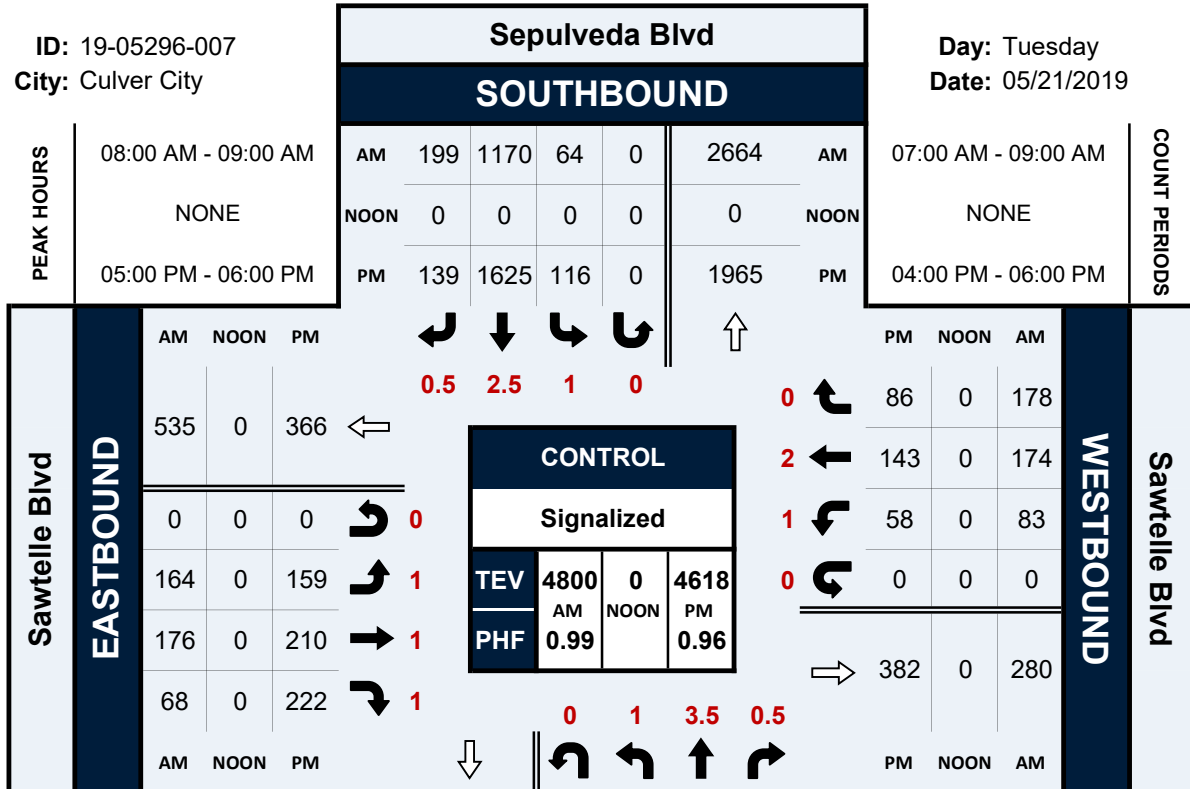


Sepulveda Blvd & Sawtelle Blvd

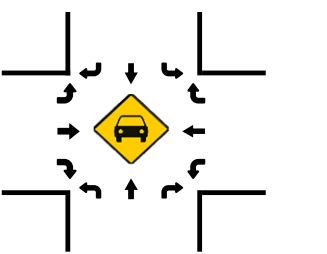
Peak Hour Turning Movement Count

ID: 19-05296-007
City: Culver City

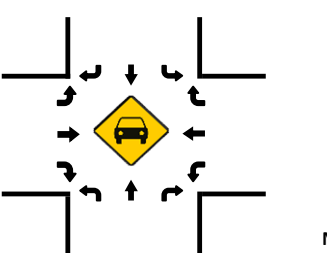
Day: Tuesday
Date: 05/21/2019



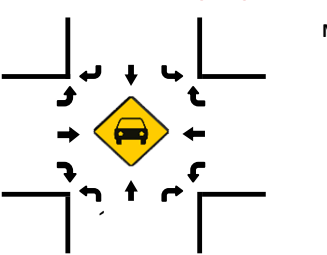
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

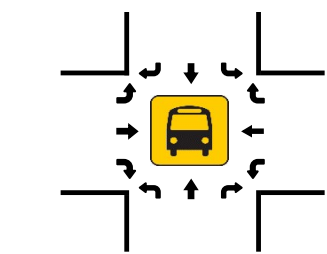


| | | | | | | |
|------|------|---|-----|------|----|------|
| PM | 1905 | 0 | 84 | 1720 | 56 | PM |
| NOON | 0 | 0 | 0 | 0 | 0 | NOON |
| AM | 1321 | 0 | 162 | 2322 | 40 | AM |

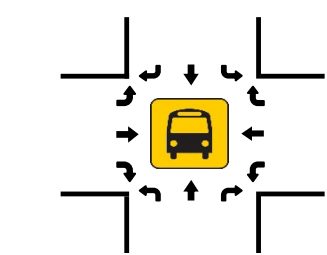
NORTHBOUND

Sepulveda Blvd

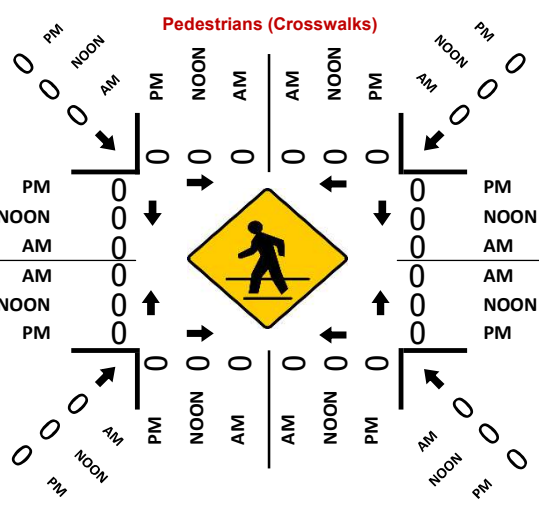
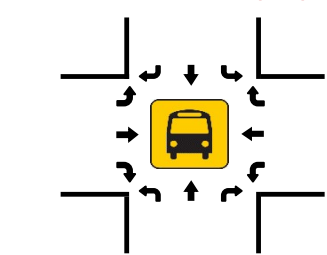
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

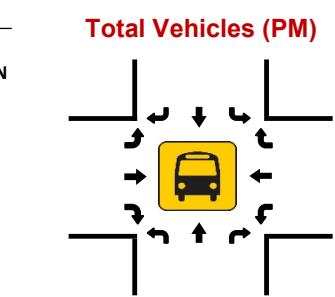
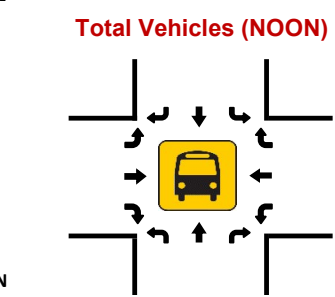
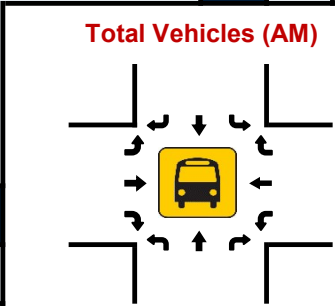
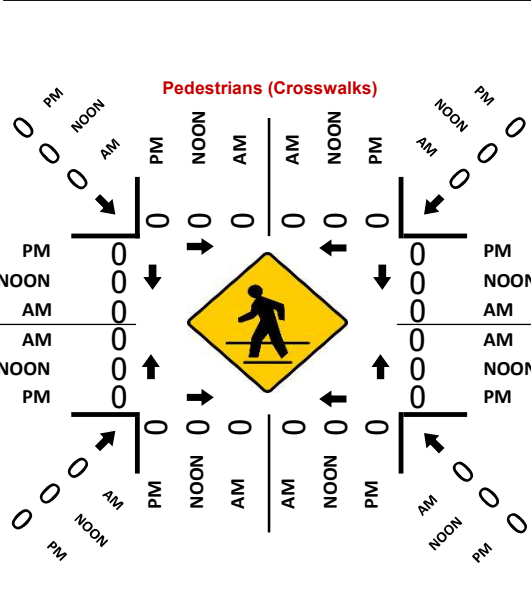
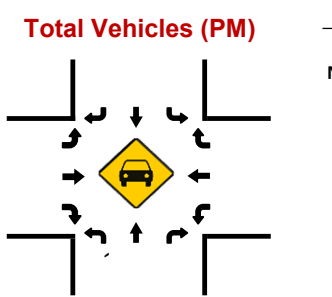
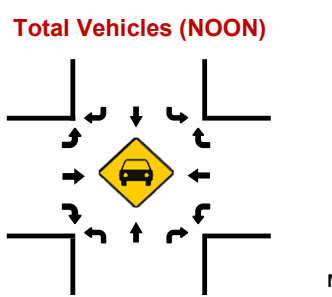
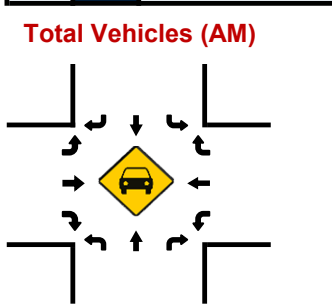
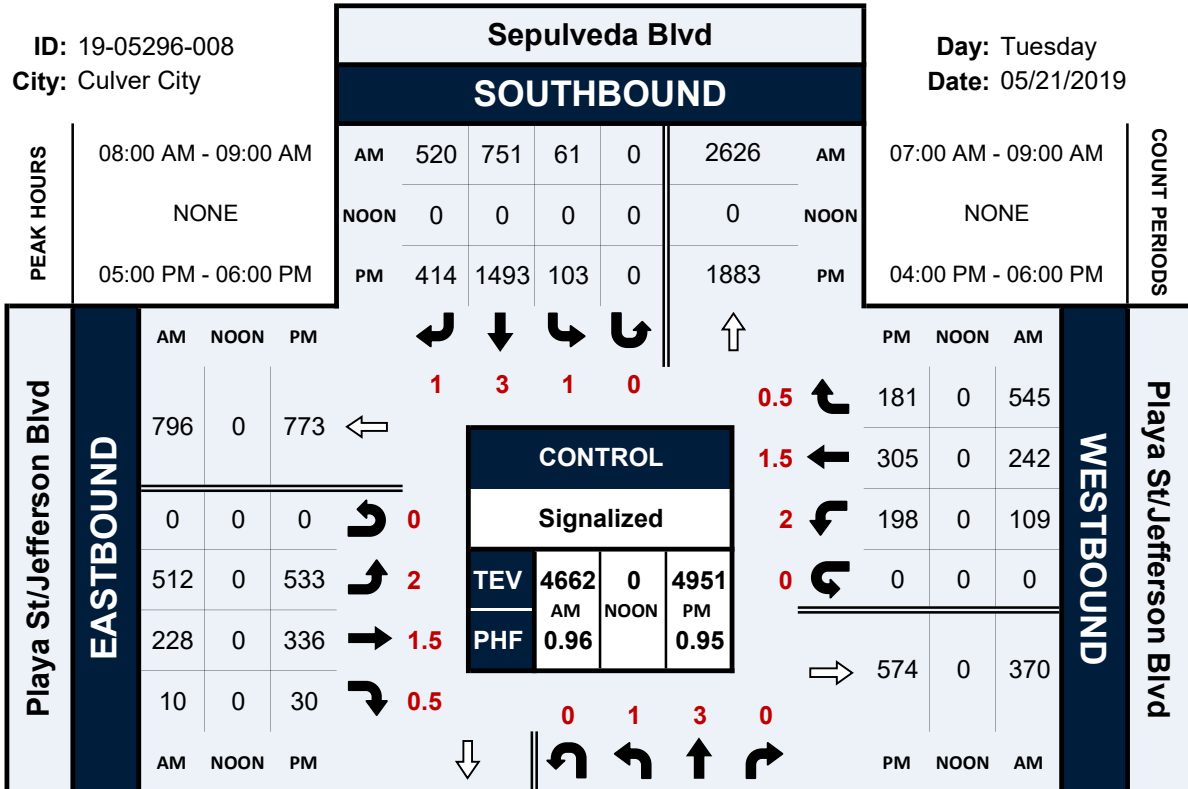


Sepulveda Blvd & Playa St/Jefferson Blvd

Peak Hour Turning Movement Count

ID: 19-05296-008
City: Culver City

Day: Tuesday
Date: 05/21/2019

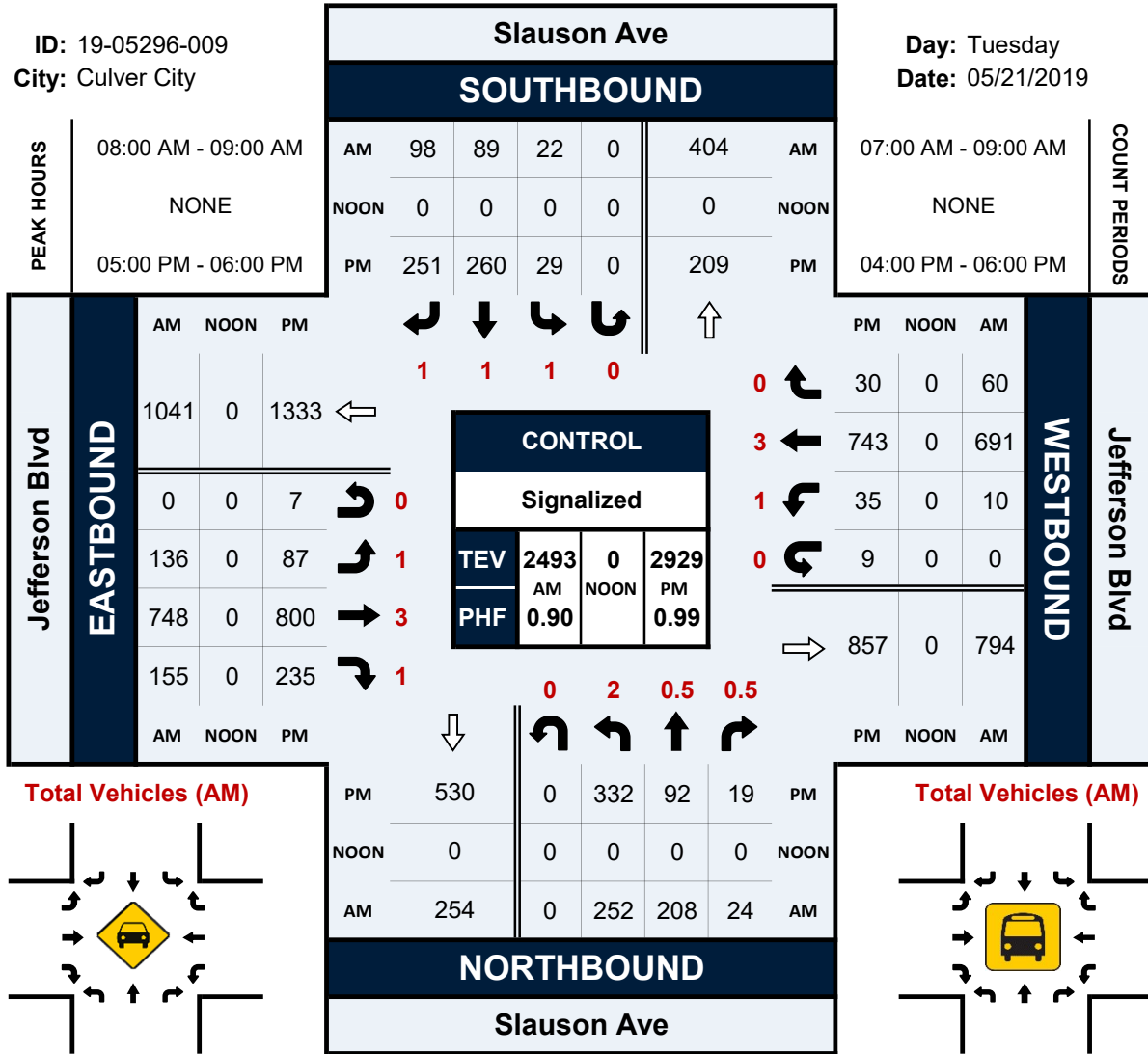


Slauson Ave & Jefferson Blvd

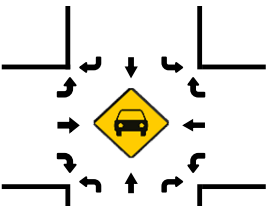
Peak Hour Turning Movement Count

ID: 19-05296-009
City: Culver City

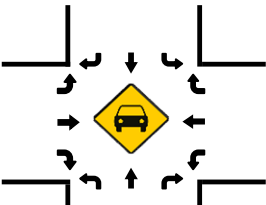
Day: Tuesday
Date: 05/21/2019



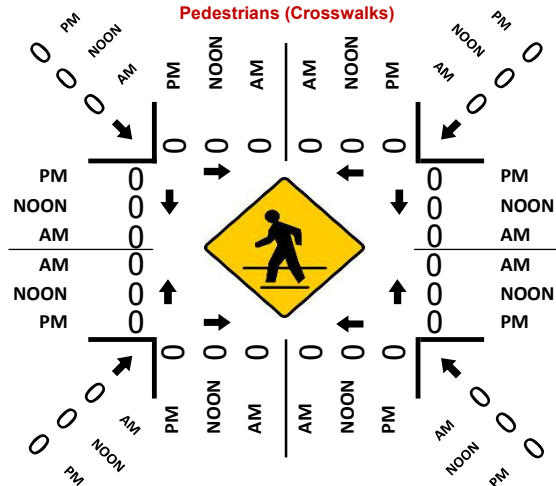
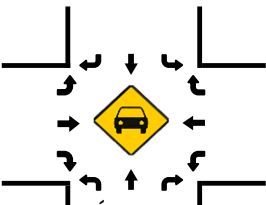
Total Vehicles (AM)



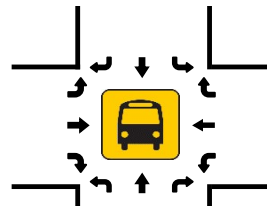
Total Vehicles (NOON)



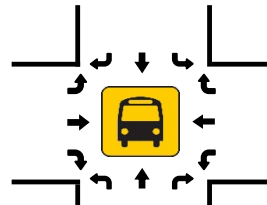
Total Vehicles (PM)



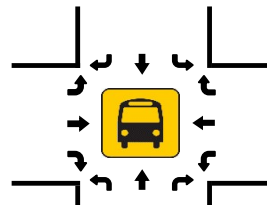
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

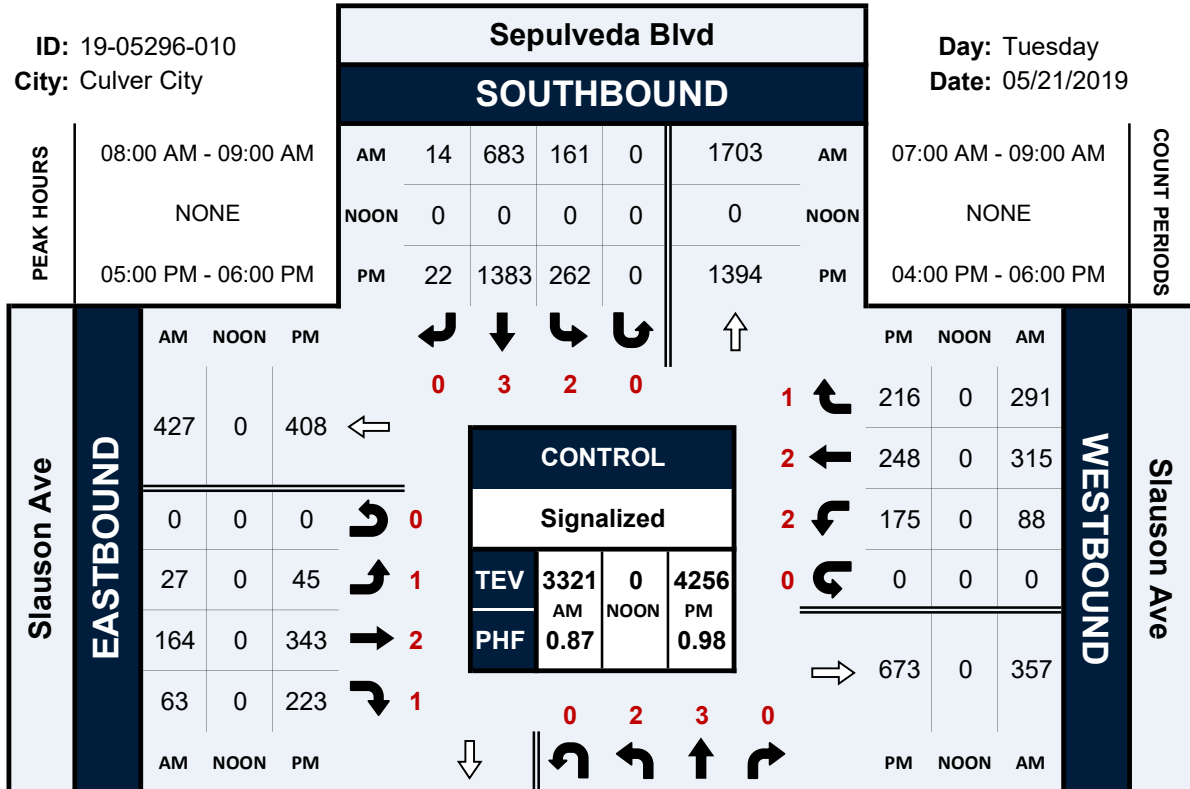


Sepulveda Blvd & Slauson Ave

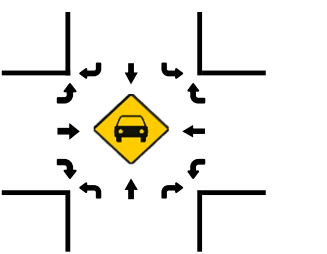
Peak Hour Turning Movement Count

ID: 19-05296-010
City: Culver City

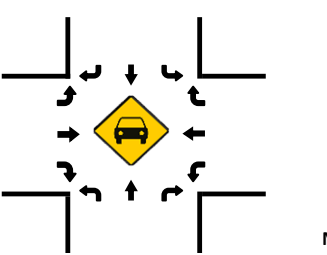
Day: Tuesday
Date: 05/21/2019



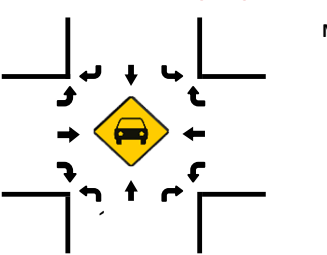
Total Vehicles (AM)



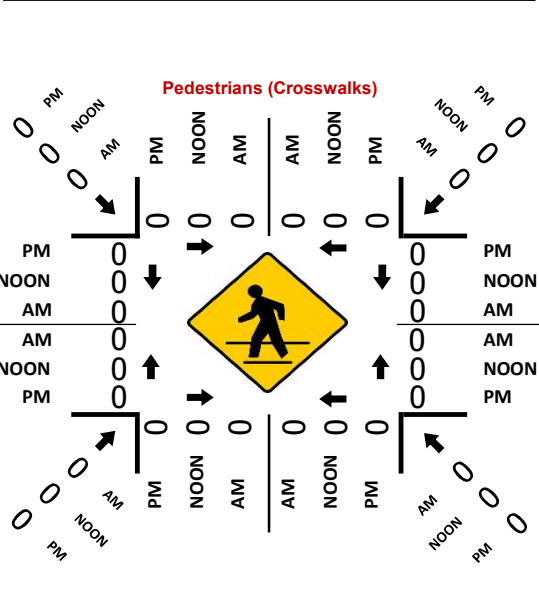
Total Vehicles (NOON)



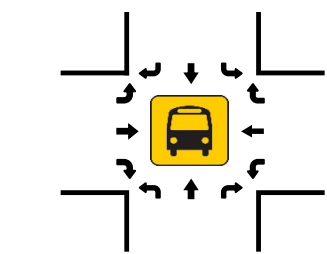
Total Vehicles (PM)



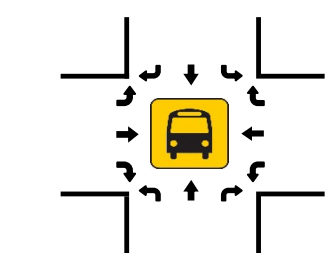
NORTHBOUND Sepulveda Blvd



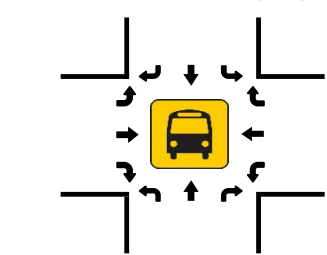
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

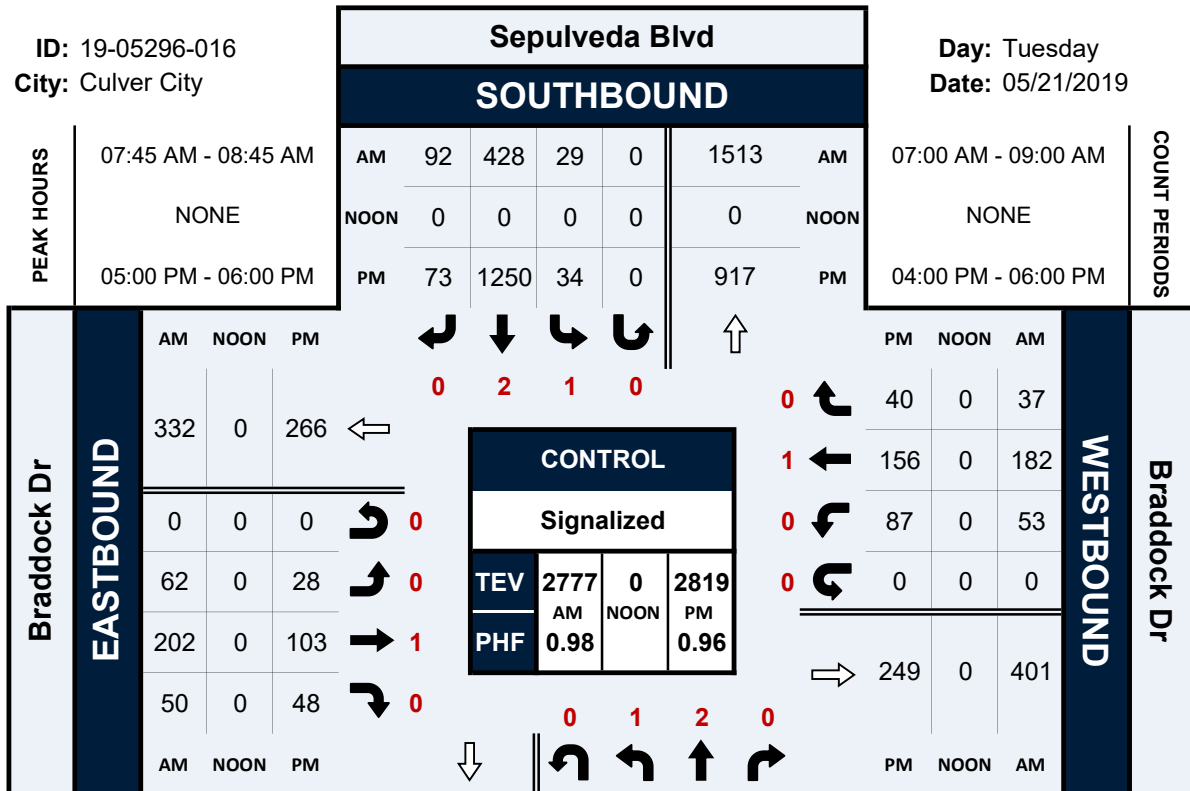


Sepulveda Blvd & Braddock Dr

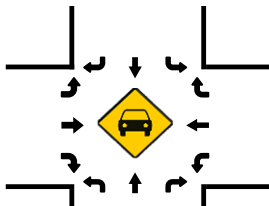
Peak Hour Turning Movement Count

ID: 19-05296-016
City: Culver City

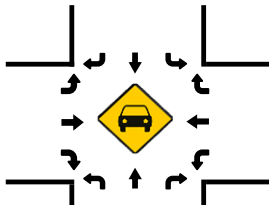
Day: Tuesday
Date: 05/21/2019



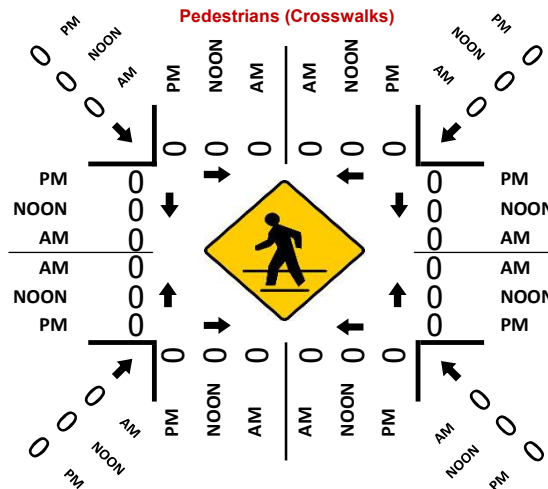
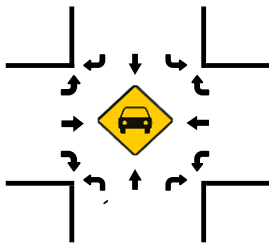
Total Vehicles (AM)



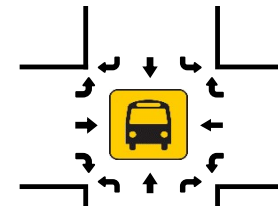
Total Vehicles (NOON)



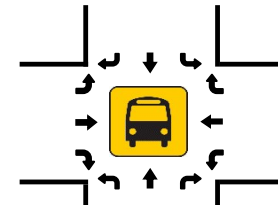
Total Vehicles (PM)



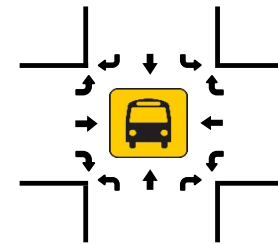
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



Existing Driveway Counts

IN & OUT

Valvoline Dwy 2 W/O Jefferson Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_002

| DAILY TOTALS | | | | IN | OUT | | | | | Total | | |
|----------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|---|---|-------|--|--|
| | | | | 63 | 12 | | | | | 75 | | |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 1 | 0 | 1 | | | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 1 | 0 | 1 | | | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 4 | 0 | 4 | | | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 6 | 0 | 0 | 6 | | | |
| 1:00 | 0 | 0 | 0 | 13:00 | 0 | 0 | 0 | | | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 2 | 0 | 2 | | | | | |
| 1:30 | 0 | 0 | 0 | 13:30 | 2 | 2 | 4 | | | | | |
| 1:45 | 0 | 0 | 0 | 13:45 | 3 | 7 | 0 | 2 | 3 | 9 | | |
| 2:00 | 0 | 0 | 0 | 14:00 | 1 | 1 | 2 | | | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 2 | 1 | 3 | | | | | |
| 2:30 | 0 | 0 | 0 | 14:30 | 1 | 1 | 2 | | | | | |
| 2:45 | 0 | 0 | 0 | 14:45 | 0 | 4 | 0 | 3 | 0 | 7 | | |
| 3:00 | 0 | 0 | 0 | 15:00 | 1 | 0 | 1 | | | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 0 | 0 | 0 | | | | | |
| 3:30 | 0 | 0 | 0 | 15:30 | 1 | 0 | 1 | | | | | |
| 3:45 | 0 | 0 | 0 | 15:45 | 0 | 2 | 1 | 1 | 1 | 3 | | |
| 4:00 | 0 | 0 | 0 | 16:00 | 2 | 0 | 2 | | | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 3 | 0 | 3 | | | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 2 | 0 | 2 | | | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 1 | 8 | 0 | 1 | 8 | | | |
| 5:00 | 0 | 0 | 0 | 17:00 | 0 | 0 | 0 | | | | | |
| 5:15 | 0 | 0 | 0 | 17:15 | 1 | 0 | 1 | | | | | |
| 5:30 | 0 | 0 | 0 | 17:30 | 1 | 0 | 1 | | | | | |
| 5:45 | 0 | 0 | 0 | 17:45 | 1 | 3 | 0 | 1 | 3 | | | |
| 6:00 | 0 | 0 | 0 | 18:00 | 3 | 1 | 4 | | | | | |
| 6:15 | 0 | 0 | 0 | 18:15 | 0 | 0 | 0 | | | | | |
| 6:30 | 0 | 0 | 0 | 18:30 | 0 | 0 | 0 | | | | | |
| 6:45 | 1 | 1 | 0 | 18:45 | 2 | 5 | 0 | 1 | 2 | 6 | | |
| 7:00 | 0 | 1 | 1 | 19:00 | 3 | 1 | 4 | | | | | |
| 7:15 | 1 | 1 | 2 | 19:15 | 0 | 0 | 0 | | | | | |
| 7:30 | 1 | 0 | 1 | 19:30 | 0 | 0 | 0 | | | | | |
| 7:45 | 0 | 2 | 0 | 19:45 | 0 | 3 | 0 | 1 | 0 | 4 | | |
| 8:00 | 1 | 0 | 1 | 20:00 | 0 | 0 | 0 | | | | | |
| 8:15 | 2 | 0 | 2 | 20:15 | 0 | 0 | 0 | | | | | |
| 8:30 | 1 | 0 | 1 | 20:30 | 0 | 0 | 0 | | | | | |
| 8:45 | 1 | 5 | 0 | 20:45 | 0 | 0 | 0 | | | | | |
| 9:00 | 0 | 0 | 0 | 21:00 | 0 | 0 | 0 | | | | | |
| 9:15 | 0 | 0 | 0 | 21:15 | 0 | 0 | 0 | | | | | |
| 9:30 | 5 | 0 | 5 | 21:30 | 0 | 0 | 0 | | | | | |
| 9:45 | 1 | 6 | 0 | 21:45 | 0 | 0 | 0 | | | | | |
| 10:00 | 0 | 0 | 0 | 22:00 | 0 | 0 | 0 | | | | | |
| 10:15 | 2 | 1 | 3 | 22:15 | 0 | 0 | 0 | | | | | |
| 10:30 | 1 | 0 | 1 | 22:30 | 0 | 0 | 0 | | | | | |
| 10:45 | 3 | 6 | 0 | 22:45 | 0 | 0 | 0 | 1 | 0 | | | |
| 11:00 | 2 | 0 | 2 | 23:00 | 0 | 0 | 0 | | | | | |
| 11:15 | 1 | 1 | 2 | 23:15 | 0 | 0 | 0 | | | | | |
| 11:30 | 0 | 0 | 0 | 23:30 | 0 | 0 | 0 | | | | | |
| 11:45 | 2 | 5 | 0 | 23:45 | 0 | 0 | 0 | 1 | 0 | | | |
| TOTALS | 25 | 4 | 29 | TOTALS | 38 | 8 | 46 | | | | | |
| SPLIT % | 86.2% | 13.8% | 38.7% | SPLIT % | 82.6% | 17.4% | 61.3% | | | | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total | | |
|-----------------|-------|-------|-------|-----------------|-----------------|-------|-------|-------|-------|-------|--|--|
| | | | | 63 | 12 | | | | | 75 | | |
| AM Peak Hour | 9:30 | 6:30 | 9:30 | PM Peak Hour | 13:15 | 13:30 | 13:30 | | | | | |
| AM Pk Volume | 8 | 2 | 9 | PM Pk Volume | 8 | 4 | 12 | | | | | |
| Pk Hr Factor | 0.400 | 0.500 | 0.450 | Pk Hr Factor | 0.667 | 0.500 | 0.750 | | | | | |
| 7 - 9 Volume | 7 | 2 | 0 | 0 | 4 - 6 Volume | 11 | 0 | 0 | 0 | 11 | | |
| 7 - 9 Peak Hour | 8:00 | 7:00 | 8:00 | 4 - 6 Peak Hour | 16:00 | | 16:00 | | | | | |
| 7 - 9 Pk Volume | 5 | 2 | 0 | 0 | 4 - 6 Pk Volume | 8 | 0 | 0 | 0 | 8 | | |
| Pk Hr Factor | 0.625 | 0.500 | 0.000 | 0.000 | Pk Hr Factor | 0.667 | 0.000 | 0.000 | 0.000 | 0.667 | | |

IN & OUT

Coco's Bakery Restaurant S Dwy 3 W/O Jefferson Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_003

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|----------------|--------------|--------------|--------------|----------------|--------------|--------------|-------|----|----|--------------|
| | | | | 53 | 152 | | | | | 205 |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 0 | 4 | 4 | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 2 | 2 | 4 | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 1 | 5 | 6 | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 2 | 2 | 13 | 16 | |
| 1:00 | 0 | 0 | 0 | 13:00 | 0 | 0 | 0 | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 3 | 5 | 8 | | | |
| 1:30 | 0 | 0 | 0 | 13:30 | 1 | 5 | 6 | | | |
| 1:45 | 0 | 0 | 0 | 13:45 | 0 | 4 | 7 | 17 | 21 | |
| 2:00 | 0 | 0 | 0 | 14:00 | 0 | 2 | 2 | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 2 | 4 | 6 | | | |
| 2:30 | 1 | 0 | 1 | 14:30 | 0 | 5 | 5 | | | |
| 2:45 | 0 | 1 | 0 | 14:45 | 1 | 3 | 4 | 15 | 18 | |
| 3:00 | 0 | 0 | 0 | 15:00 | 0 | 0 | 0 | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 0 | 1 | 1 | | | |
| 3:30 | 1 | 0 | 1 | 15:30 | 1 | 5 | 6 | | | |
| 3:45 | 0 | 1 | 0 | 15:45 | 1 | 2 | 1 | 7 | 9 | |
| 4:00 | 0 | 0 | 0 | 16:00 | 2 | 4 | 6 | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 0 | 5 | 5 | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 0 | 4 | 4 | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 0 | 2 | 0 | 13 | 15 | |
| 5:00 | 0 | 0 | 0 | 17:00 | 1 | 5 | 6 | | | |
| 5:15 | 0 | 0 | 0 | 17:15 | 2 | 3 | 5 | | | |
| 5:30 | 0 | 0 | 0 | 17:30 | 3 | 2 | 5 | | | |
| 5:45 | 0 | 0 | 0 | 17:45 | 0 | 6 | 6 | 16 | 22 | |
| 6:00 | 0 | 0 | 0 | 18:00 | 1 | 1 | 2 | | | |
| 6:15 | 0 | 0 | 0 | 18:15 | 0 | 1 | 1 | | | |
| 6:30 | 0 | 1 | 1 | 18:30 | 1 | 0 | 1 | | | |
| 6:45 | 0 | 0 | 0 | 18:45 | 3 | 5 | 3 | 5 | 10 | |
| 7:00 | 0 | 0 | 0 | 19:00 | 0 | 2 | 2 | | | |
| 7:15 | 0 | 2 | 2 | 19:15 | 0 | 3 | 3 | | | |
| 7:30 | 0 | 1 | 1 | 19:30 | 0 | 1 | 1 | | | |
| 7:45 | 0 | 1 | 1 | 19:45 | 3 | 3 | 4 | 10 | 13 | |
| 8:00 | 0 | 2 | 2 | 20:00 | 1 | 1 | 2 | | | |
| 8:15 | 1 | 3 | 4 | 20:15 | 1 | 2 | 3 | | | |
| 8:30 | 0 | 1 | 1 | 20:30 | 0 | 3 | 3 | | | |
| 8:45 | 1 | 2 | 3 | 20:45 | 1 | 3 | 0 | 6 | 9 | |
| 9:00 | 0 | 0 | 0 | 21:00 | 0 | 0 | 0 | | | |
| 9:15 | 1 | 3 | 4 | 21:15 | 0 | 0 | 0 | | | |
| 9:30 | 0 | 4 | 4 | 21:30 | 0 | 2 | 2 | | | |
| 9:45 | 2 | 3 | 5 | 21:45 | 0 | 1 | 1 | 3 | 3 | |
| 10:00 | 4 | 0 | 4 | 22:00 | 0 | 0 | 0 | | | |
| 10:15 | 3 | 4 | 7 | 22:15 | 0 | 1 | 1 | | | |
| 10:30 | 2 | 3 | 5 | 22:30 | 0 | 0 | 0 | | | |
| 10:45 | 1 | 10 | 11 | 22:45 | 0 | 1 | 1 | 2 | 2 | |
| 11:00 | 1 | 4 | 5 | 23:00 | 0 | 0 | 0 | | | |
| 11:15 | 0 | 4 | 4 | 23:15 | 1 | 0 | 1 | | | |
| 11:30 | 2 | 1 | 3 | 23:30 | 0 | 0 | 0 | | | |
| 11:45 | 1 | 4 | 5 | 23:45 | 0 | 1 | 1 | | | |
| TOTALS | 21 | 45 | 66 | TOTALS | 32 | 107 | | | | 139 |
| SPLIT % | 31.8% | 68.2% | 32.2% | SPLIT % | 23.0% | 77.0% | | | | 67.8% |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-----------------|-------|-------|-------|--|--|-------|
| | | | | 53 | 152 | | | | | 205 |
| AM Peak Hour | 9:45 | 11:45 | 11:45 | PM Peak Hour | 16:45 | 13:15 | 13:15 | | | |
| AM Pk Volume | 11 | 17 | 21 | PM Pk Volume | 6 | 19 | 23 | | | |
| Pk Hr Factor | 0.688 | 0.708 | 0.750 | Pk Hr Factor | 0.500 | 0.679 | 0.719 | | | |
| 7 - 9 Volume | 2 | 13 | 15 | 4 - 6 Volume | 8 | 29 | 37 | | | |
| 7 - 9 Peak Hour | 8:00 | 8:00 | 8:00 | 4 - 6 Peak Hour | 16:45 | 17:00 | 17:00 | | | |
| 7 - 9 Pk Volume | 2 | 9 | 11 | 4 - 6 Pk Volume | 6 | 16 | 22 | | | |
| Pk Hr Factor | 0.500 | 0.750 | 0.688 | Pk Hr Factor | 0.500 | 0.667 | 0.917 | | | |

IN & OUT

Coco's Bakery Restaurant S Dwy 4 W/O Jefferson Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_004

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|----------------|--------------|--------------|---|--------------|----------------|--------------|--------------|---|--------------|-------|----|
| | | | | 500 | 211 | | | | | 711 | |
| AM Period | IN | OUT | | TOTAL | PM Period | IN | OUT | | TOTAL | | |
| 0:00 | 0 | 0 | | 0 | 12:00 | 11 | 6 | | 17 | | |
| 0:15 | 0 | 0 | | 0 | 12:15 | 8 | 9 | | 17 | | |
| 0:30 | 0 | 0 | | 0 | 12:30 | 13 | 3 | | 16 | | |
| 0:45 | 0 | 0 | | 0 | 12:45 | 10 | 42 | 5 | 23 | 15 | 65 |
| 1:00 | 0 | 0 | | 0 | 13:00 | 15 | 3 | | 18 | | |
| 1:15 | 0 | 0 | | 0 | 13:15 | 15 | 4 | | 19 | | |
| 1:30 | 0 | 0 | | 0 | 13:30 | 15 | 6 | | 21 | | |
| 1:45 | 0 | 0 | | 0 | 13:45 | 18 | 63 | 4 | 17 | 22 | 80 |
| 2:00 | 0 | 0 | | 0 | 14:00 | 14 | 8 | | 22 | | |
| 2:15 | 0 | 0 | | 0 | 14:15 | 13 | 7 | | 20 | | |
| 2:30 | 0 | 1 | | 1 | 14:30 | 12 | 3 | | 15 | | |
| 2:45 | 0 | 1 | | 1 | 14:45 | 13 | 52 | 1 | 19 | 14 | 71 |
| 3:00 | 0 | 0 | | 0 | 15:00 | 8 | 3 | | 11 | | |
| 3:15 | 0 | 0 | | 0 | 15:15 | 11 | 4 | | 15 | | |
| 3:30 | 0 | 0 | | 0 | 15:30 | 12 | 7 | | 19 | | |
| 3:45 | 0 | 0 | | 0 | 15:45 | 8 | 39 | 3 | 17 | 11 | 56 |
| 4:00 | 0 | 0 | | 0 | 16:00 | 12 | 6 | | 18 | | |
| 4:15 | 0 | 0 | | 0 | 16:15 | 15 | 6 | | 21 | | |
| 4:30 | 0 | 1 | | 1 | 16:30 | 9 | 4 | | 13 | | |
| 4:45 | 0 | 0 | | 0 | 16:45 | 5 | 41 | 7 | 23 | 12 | 64 |
| 5:00 | 1 | 0 | | 1 | 17:00 | 11 | 1 | | 12 | | |
| 5:15 | 1 | 0 | | 1 | 17:15 | 9 | 3 | | 12 | | |
| 5:30 | 0 | 0 | | 0 | 17:30 | 7 | 1 | | 8 | | |
| 5:45 | 2 | 4 | 0 | 2 | 17:45 | 5 | 32 | 1 | 6 | 6 | 38 |
| 6:00 | 2 | 0 | | 2 | 18:00 | 4 | 0 | | 4 | | |
| 6:15 | 3 | 3 | | 6 | 18:15 | 6 | 4 | | 10 | | |
| 6:30 | 1 | 0 | | 1 | 18:30 | 1 | 2 | | 3 | | |
| 6:45 | 2 | 8 | 1 | 3 | 18:45 | 5 | 16 | 3 | 9 | 8 | 25 |
| 7:00 | 4 | 1 | | 5 | 19:00 | 6 | 3 | | 9 | | |
| 7:15 | 2 | 2 | | 4 | 19:15 | 2 | 1 | | 3 | | |
| 7:30 | 8 | 0 | | 8 | 19:30 | 3 | 1 | | 4 | | |
| 7:45 | 6 | 20 | 1 | 7 | 19:45 | 2 | 13 | 2 | 7 | 4 | 20 |
| 8:00 | 8 | 3 | | 11 | 20:00 | 3 | 0 | | 3 | | |
| 8:15 | 7 | 1 | | 8 | 20:15 | 2 | 1 | | 3 | | |
| 8:30 | 7 | 3 | | 10 | 20:30 | 5 | 4 | | 9 | | |
| 8:45 | 5 | 27 | 1 | 6 | 20:45 | 2 | 12 | 2 | 7 | 4 | 19 |
| 9:00 | 3 | 1 | | 4 | 21:00 | 0 | 1 | | 1 | | |
| 9:15 | 6 | 7 | | 13 | 21:15 | 1 | 2 | | 3 | | |
| 9:30 | 8 | 3 | | 11 | 21:30 | 1 | 1 | | 2 | | |
| 9:45 | 11 | 28 | 1 | 12 | 21:45 | 0 | 2 | 2 | 6 | 2 | 8 |
| 10:00 | 14 | 3 | | 17 | 22:00 | 2 | 1 | | 3 | | |
| 10:15 | 4 | 4 | | 8 | 22:15 | 1 | 0 | | 1 | | |
| 10:30 | 11 | 4 | | 15 | 22:30 | 0 | 0 | | 0 | | |
| 10:45 | 14 | 43 | 6 | 20 | 22:45 | 0 | 3 | 1 | 2 | 1 | 5 |
| 11:00 | 10 | 6 | | 16 | 23:00 | 0 | 0 | | 0 | | |
| 11:15 | 13 | 6 | | 19 | 23:15 | 0 | 0 | | 0 | | |
| 11:30 | 16 | 9 | | 25 | 23:30 | 0 | 0 | | 0 | | |
| 11:45 | 16 | 55 | 6 | 22 | 23:45 | 0 | 0 | | 0 | | |
| TOTALS | 185 | 75 | | 260 | TOTALS | 315 | 136 | | 451 | | |
| SPLIT % | 71.2% | 28.8% | | 36.6% | SPLIT % | 69.8% | 30.2% | | 63.4% | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | 500 | 211 | | | | | 711 |
| AM Peak Hour | 11:15 | 11:30 | | 11:15 | PM Peak Hour | 13:00 | 13:30 | | 13:30 | |
| AM Pk Volume | 56 | 30 | | 83 | PM Pk Volume | 63 | 25 | | 85 | |
| Pk Hr Factor | 0.875 | 0.833 | | 0.830 | Pk Hr Factor | 0.875 | 0.781 | | 0.966 | |
| 7 - 9 Volume | 47 | 12 | 0 | 59 | 4 - 6 Volume | 73 | 29 | 0 | 102 | |
| 7 - 9 Peak Hour | 7:30 | 7:45 | | 7:45 | 4 - 6 Peak Hour | 16:00 | 16:00 | | 16:00 | |
| 7 - 9 Pk Volume | 29 | 8 | | 36 | 4 - 6 Pk Volume | 41 | 23 | | 64 | |
| Pk Hr Factor | 0.906 | 0.667 | 0.000 | 0.818 | Pk Hr Factor | 0.683 | 0.821 | 0.000 | 0.762 | |

IN & OUT

Parking Lot E Dwy 5 N/O Machado Rd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_005

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|----------------|--------|-----|-------|----------------|--------|-----|-------|--|--|-------|--|
| | | | | 0 | 5 | | | | | 5 | |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 0 | 0 | 0 | | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 0 | 1 | 1 | | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 0 | 0 | 0 | | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 0 | 0 | | | | |
| 1:00 | 0 | 0 | 0 | 12:45 | 0 | 1 | 1 | | | | |
| 1:15 | 0 | 0 | 0 | 13:00 | 0 | 0 | 0 | | | | |
| 1:30 | 0 | 0 | 0 | 13:15 | 0 | 0 | 0 | | | | |
| 1:45 | 0 | 0 | 0 | 13:30 | 0 | 0 | 0 | | | | |
| 2:00 | 0 | 0 | 0 | 13:45 | 0 | 0 | 0 | | | | |
| 2:15 | 0 | 0 | 0 | 14:00 | 0 | 0 | 0 | | | | |
| 2:30 | 0 | 0 | 0 | 14:15 | 0 | 0 | 0 | | | | |
| 2:45 | 0 | 0 | 0 | 14:30 | 0 | 0 | 0 | | | | |
| 3:00 | 0 | 0 | 0 | 14:45 | 0 | 0 | 0 | | | | |
| 3:15 | 0 | 0 | 0 | 15:00 | 0 | 0 | 0 | | | | |
| 3:30 | 0 | 0 | 0 | 15:15 | 0 | 0 | 0 | | | | |
| 3:45 | 0 | 0 | 0 | 15:30 | 0 | 1 | 1 | | | | |
| 4:00 | 0 | 0 | 0 | 15:45 | 0 | 1 | 2 | | | | |
| 4:15 | 0 | 0 | 0 | 16:00 | 0 | 0 | 0 | | | | |
| 4:30 | 0 | 0 | 0 | 16:15 | 0 | 1 | 1 | | | | |
| 4:45 | 0 | 0 | 0 | 16:30 | 0 | 0 | 0 | | | | |
| 5:00 | 0 | 0 | 0 | 16:45 | 0 | 0 | 0 | | | | |
| 5:15 | 0 | 0 | 0 | 17:00 | 0 | 0 | 0 | | | | |
| 5:30 | 0 | 0 | 0 | 17:15 | 0 | 0 | 0 | | | | |
| 5:45 | 0 | 0 | 0 | 17:30 | 0 | 0 | 0 | | | | |
| 6:00 | 0 | 0 | 0 | 17:45 | 0 | 0 | 0 | | | | |
| 6:15 | 0 | 0 | 0 | 18:00 | 0 | 0 | 0 | | | | |
| 6:30 | 0 | 0 | 0 | 18:15 | 0 | 0 | 0 | | | | |
| 6:45 | 0 | 0 | 0 | 18:30 | 0 | 0 | 0 | | | | |
| 7:00 | 0 | 0 | 0 | 18:45 | 0 | 0 | 0 | | | | |
| 7:15 | 0 | 0 | 0 | 19:00 | 0 | 0 | 0 | | | | |
| 7:30 | 0 | 0 | 0 | 19:15 | 0 | 0 | 0 | | | | |
| 7:45 | 0 | 0 | 0 | 19:30 | 0 | 0 | 0 | | | | |
| 8:00 | 0 | 0 | 0 | 19:45 | 0 | 0 | 0 | | | | |
| 8:15 | 0 | 0 | 0 | 20:00 | 0 | 0 | 0 | | | | |
| 8:30 | 0 | 1 | 1 | 20:15 | 0 | 0 | 0 | | | | |
| 8:45 | 0 | 0 | 0 | 20:30 | 0 | 0 | 0 | | | | |
| 9:00 | 0 | 0 | 0 | 20:45 | 0 | 0 | 0 | | | | |
| 9:15 | 0 | 0 | 0 | 21:00 | 0 | 0 | 0 | | | | |
| 9:30 | 0 | 0 | 0 | 21:15 | 0 | 0 | 0 | | | | |
| 9:45 | 0 | 0 | 0 | 21:30 | 0 | 0 | 0 | | | | |
| 10:00 | 0 | 0 | 0 | 21:45 | 0 | 0 | 0 | | | | |
| 10:15 | 0 | 0 | 0 | 22:00 | 0 | 0 | 0 | | | | |
| 10:30 | 0 | 0 | 0 | 22:15 | 0 | 0 | 0 | | | | |
| 10:45 | 0 | 0 | 0 | 22:30 | 0 | 0 | 0 | | | | |
| 11:00 | 0 | 0 | 0 | 22:45 | 0 | 0 | 0 | | | | |
| 11:15 | 0 | 0 | 0 | 23:00 | 0 | 0 | 0 | | | | |
| 11:30 | 0 | 0 | 0 | 23:15 | 0 | 0 | 0 | | | | |
| 11:45 | 0 | 0 | 0 | 23:30 | 0 | 0 | 0 | | | | |
| 11:45 | 0 | 0 | 0 | 23:45 | 0 | 0 | 0 | | | | |
| TOTALS | 1 | | 1 | TOTALS | 4 | | 4 | | | | |
| SPLIT % | 100.0% | | 20.0% | SPLIT % | 100.0% | | 80.0% | | | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|-----------------|-------|-------|-------|-----------------|-----------------|-------|-------|-------|-------|-------|--|
| | | | | 0 | 5 | | | | | 5 | |
| AM Peak Hour | 7:45 | | 7:45 | PM Peak Hour | 15:30 | | 15:30 | | | | |
| AM Pk Volume | 1 | | 1 | PM Pk Volume | 3 | | 3 | | | | |
| Pk Hr Factor | 0.250 | | 0.250 | Pk Hr Factor | 0.750 | | 0.750 | | | | |
| 7 - 9 Volume | 0 | 1 | 0 | 0 | 4 - 6 Volume | 1 | 0 | 0 | 1 | | |
| 7 - 9 Peak Hour | 7:45 | | 7:45 | 4 - 6 Peak Hour | 16:00 | | 16:00 | | | | |
| 7 - 9 Pk Volume | 0 | 1 | 0 | 0 | 4 - 6 Pk Volume | 1 | 0 | 0 | 1 | | |
| Pk Hr Factor | 0.000 | 0.250 | 0.000 | 0.000 | Pk Hr Factor | 0.000 | 0.250 | 0.000 | 0.000 | 0.250 | |

IN & OUT

Parking Lot W Dwy 5 N/O Machado Rd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_006

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|----------------|--------------|--------------|--------------|----------------|---------------|-----|-------|--|--|--------------|--|
| | | | | 7 | 3 | | | | | 10 | |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 0 | 0 | 0 | | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 1 | 0 | 1 | | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 0 | 0 | 0 | | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 1 | 0 | | | | |
| 1:00 | 0 | 0 | 0 | 13:00 | 0 | 0 | 0 | | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 0 | 0 | 0 | | | | |
| 1:30 | 0 | 0 | 0 | 13:30 | 0 | 0 | 0 | | | | |
| 1:45 | 0 | 0 | 0 | 13:45 | 0 | 0 | 0 | | | | |
| 2:00 | 0 | 0 | 0 | 14:00 | 0 | 0 | 0 | | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 0 | 0 | 0 | | | | |
| 2:30 | 0 | 0 | 0 | 14:30 | 0 | 0 | 0 | | | | |
| 2:45 | 0 | 0 | 0 | 14:45 | 0 | 0 | 0 | | | | |
| 3:00 | 0 | 0 | 0 | 15:00 | 0 | 0 | 0 | | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 1 | 0 | 1 | | | | |
| 3:30 | 0 | 0 | 0 | 15:30 | 1 | 0 | 1 | | | | |
| 3:45 | 0 | 0 | 0 | 15:45 | 1 | 3 | 0 | | | | |
| 4:00 | 0 | 0 | 0 | 16:00 | 0 | 0 | 0 | | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 1 | 0 | 1 | | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 0 | 0 | 0 | | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 0 | 1 | 0 | | | | |
| 5:00 | 0 | 0 | 0 | 17:00 | 0 | 0 | 0 | | | | |
| 5:15 | 0 | 0 | 0 | 17:15 | 0 | 0 | 0 | | | | |
| 5:30 | 0 | 0 | 0 | 17:30 | 0 | 0 | 0 | | | | |
| 5:45 | 0 | 0 | 0 | 17:45 | 0 | 0 | 0 | | | | |
| 6:00 | 0 | 0 | 0 | 18:00 | 0 | 0 | 0 | | | | |
| 6:15 | 0 | 0 | 0 | 18:15 | 0 | 0 | 0 | | | | |
| 6:30 | 0 | 0 | 0 | 18:30 | 0 | 0 | 0 | | | | |
| 6:45 | 0 | 0 | 0 | 18:45 | 0 | 0 | 0 | | | | |
| 7:00 | 0 | 0 | 0 | 19:00 | 0 | 0 | 0 | | | | |
| 7:15 | 0 | 0 | 0 | 19:15 | 0 | 0 | 0 | | | | |
| 7:30 | 0 | 0 | 0 | 19:30 | 0 | 0 | 0 | | | | |
| 7:45 | 0 | 0 | 0 | 19:45 | 0 | 0 | 0 | | | | |
| 8:00 | 0 | 0 | 0 | 20:00 | 0 | 0 | 0 | | | | |
| 8:15 | 0 | 1 | 1 | 20:15 | 0 | 0 | 0 | | | | |
| 8:30 | 0 | 0 | 0 | 20:30 | 0 | 0 | 0 | | | | |
| 8:45 | 2 | 2 | 1 | 20:45 | 0 | 0 | 0 | | | | |
| 9:00 | 0 | 0 | 0 | 21:00 | 0 | 0 | 0 | | | | |
| 9:15 | 0 | 0 | 0 | 21:15 | 0 | 0 | 0 | | | | |
| 9:30 | 0 | 0 | 0 | 21:30 | 0 | 0 | 0 | | | | |
| 9:45 | 0 | 0 | 0 | 21:45 | 0 | 0 | 0 | | | | |
| 10:00 | 0 | 0 | 0 | 22:00 | 0 | 0 | 0 | | | | |
| 10:15 | 0 | 0 | 0 | 22:15 | 0 | 0 | 0 | | | | |
| 10:30 | 0 | 0 | 0 | 22:30 | 0 | 0 | 0 | | | | |
| 10:45 | 0 | 0 | 0 | 22:45 | 0 | 0 | 0 | | | | |
| 11:00 | 0 | 0 | 0 | 23:00 | 0 | 0 | 0 | | | | |
| 11:15 | 0 | 0 | 0 | 23:15 | 0 | 0 | 0 | | | | |
| 11:30 | 0 | 1 | 1 | 23:30 | 0 | 0 | 0 | | | | |
| 11:45 | 0 | 0 | 1 | 23:45 | 0 | 0 | 0 | | | | |
| TOTALS | 2 | 3 | 5 | TOTALS | 5 | | | | | 5 | |
| SPLIT % | 40.0% | 60.0% | 50.0% | SPLIT % | 100.0% | | | | | 50.0% | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| | | | | 7 | 3 | | | | | 10 |
| AM Peak Hour | 8:00 | 8:00 | 8:00 | PM Peak Hour | 15:00 | | | | | 15:00 |
| AM Pk Volume | 2 | 2 | 4 | PM Pk Volume | 3 | | | | | 3 |
| Pk Hr Factor | 0.250 | 0.500 | 0.333 | Pk Hr Factor | 0.750 | | | | | 0.750 |
| 7 - 9 Volume | 2 | 2 | 0 | 4 - 6 Volume | 1 | 0 | 0 | 0 | 0 | 1 |
| 7 - 9 Peak Hour | 8:00 | 8:00 | 8:00 | 4 - 6 Peak Hour | 16:00 | | | | | 16:00 |
| 7 - 9 Pk Volume | 2 | 2 | 0 | 4 - 6 Pk Volume | 1 | 0 | 0 | 0 | 0 | 1 |
| Pk Hr Factor | 0.250 | 0.500 | 0.000 | Pk Hr Factor | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 |

IN & OUT

United States Postal Service N Dwy 7 E/O Sepulveda Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_007

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|--------------|----|-----|---------|-----------|-----|-----|---------|--|--|-------|--|
| | | | | 0 | 0 | | | | | 0 | |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 0 | 0 | 0 | | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 0 | 0 | 0 | | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 0 | 0 | 0 | | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 0 | 0 | | | | |
| 1:00 | 0 | 0 | 0 | 13:00 | 0 | 0 | 0 | | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 0 | 0 | 0 | | | | |
| 1:30 | 0 | 0 | 0 | 13:30 | 0 | 0 | 0 | | | | |
| 1:45 | 0 | 0 | 0 | 13:45 | 0 | 0 | 0 | | | | |
| 2:00 | 0 | 0 | 0 | 14:00 | 0 | 0 | 0 | | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 0 | 0 | 0 | | | | |
| 2:30 | 0 | 0 | 0 | 14:30 | 0 | 0 | 0 | | | | |
| 2:45 | 0 | 0 | 0 | 14:45 | 0 | 0 | 0 | | | | |
| 3:00 | 0 | 0 | 0 | 15:00 | 0 | 0 | 0 | | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 0 | 0 | 0 | | | | |
| 3:30 | 0 | 0 | 0 | 15:30 | 0 | 0 | 0 | | | | |
| 3:45 | 0 | 0 | 0 | 15:45 | 0 | 0 | 0 | | | | |
| 4:00 | 0 | 0 | 0 | 16:00 | 0 | 0 | 0 | | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 0 | 0 | 0 | | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 0 | 0 | 0 | | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 0 | 0 | 0 | | | | |
| 5:00 | 0 | 0 | 0 | 17:00 | 0 | 0 | 0 | | | | |
| 5:15 | 0 | 0 | 0 | 17:15 | 0 | 0 | 0 | | | | |
| 5:30 | 0 | 0 | 0 | 17:30 | 0 | 0 | 0 | | | | |
| 5:45 | 0 | 0 | 0 | 17:45 | 0 | 0 | 0 | | | | |
| 6:00 | 0 | 0 | 0 | 18:00 | 0 | 0 | 0 | | | | |
| 6:15 | 0 | 0 | 0 | 18:15 | 0 | 0 | 0 | | | | |
| 6:30 | 0 | 0 | 0 | 18:30 | 0 | 0 | 0 | | | | |
| 6:45 | 0 | 0 | 0 | 18:45 | 0 | 0 | 0 | | | | |
| 7:00 | 0 | 0 | 0 | 19:00 | 0 | 0 | 0 | | | | |
| 7:15 | 0 | 0 | 0 | 19:15 | 0 | 0 | 0 | | | | |
| 7:30 | 0 | 0 | 0 | 19:30 | 0 | 0 | 0 | | | | |
| 7:45 | 0 | 0 | 0 | 19:45 | 0 | 0 | 0 | | | | |
| 8:00 | 0 | 0 | 0 | 20:00 | 0 | 0 | 0 | | | | |
| 8:15 | 0 | 0 | 0 | 20:15 | 0 | 0 | 0 | | | | |
| 8:30 | 0 | 0 | 0 | 20:30 | 0 | 0 | 0 | | | | |
| 8:45 | 0 | 0 | 0 | 20:45 | 0 | 0 | 0 | | | | |
| 9:00 | 0 | 0 | 0 | 21:00 | 0 | 0 | 0 | | | | |
| 9:15 | 0 | 0 | 0 | 21:15 | 0 | 0 | 0 | | | | |
| 9:30 | 0 | 0 | 0 | 21:30 | 0 | 0 | 0 | | | | |
| 9:45 | 0 | 0 | 0 | 21:45 | 0 | 0 | 0 | | | | |
| 10:00 | 0 | 0 | 0 | 22:00 | 0 | 0 | 0 | | | | |
| 10:15 | 0 | 0 | 0 | 22:15 | 0 | 0 | 0 | | | | |
| 10:30 | 0 | 0 | 0 | 22:30 | 0 | 0 | 0 | | | | |
| 10:45 | 0 | 0 | 0 | 22:45 | 0 | 0 | 0 | | | | |
| 11:00 | 0 | 0 | 0 | 23:00 | 0 | 0 | 0 | | | | |
| 11:15 | 0 | 0 | 0 | 23:15 | 0 | 0 | 0 | | | | |
| 11:30 | 0 | 0 | 0 | 23:30 | 0 | 0 | 0 | | | | |
| 11:45 | 0 | 0 | 0 | 23:45 | 0 | 0 | 0 | | | | |
| TOTALS | | | 0 | TOTALS | | | 0 | | | | |
| SPLIT % | | | #DIV/0! | SPLIT % | | | #DIV/0! | | | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|--------------|--|--|--|----|-----|--|--|--|--|-------|
| | | | | 0 | 0 | | | | | 0 |

| | | | | | | | | | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| AM Peak Hour | | | | | | | | | | | PM Peak Hour | | | | | | |
| AM Pk Volume | | | | | | | | | | | PM Pk Volume | | | | | | |
| Pk Hr Factor | | | | | | | | | | | Pk Hr Factor | | | | | | |
| 7 - 9 Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 - 6 Volume | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 - 9 Peak Hour | | | | | | | | | | | 4 - 6 Peak Hour | | | | | | |
| 7 - 9 Pk Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 - 6 Pk Volume | 0 | 0 | 0 | 0 | 0 | 0 |
| Pk Hr Factor | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Pk Hr Factor | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IN & OUT

United States Postal Service S Dwy 8 E/O Sepulveda Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_008

| DAILY TOTALS | | | | IN | OUT | | | | | Total | |
|----------------|--------------|--------------|---|--------------|----------------|--------------|--------------|---|--------------|-------|----|
| | | | | 132 | 134 | | | | | 266 | |
| AM Period | IN | OUT | | TOTAL | PM Period | IN | OUT | | TOTAL | | |
| 0:00 | 0 | 0 | | 0 | 12:00 | 4 | 3 | | 7 | | |
| 0:15 | 0 | 0 | | 0 | 12:15 | 2 | 3 | | 5 | | |
| 0:30 | 0 | 0 | | 0 | 12:30 | 1 | 0 | | 1 | | |
| 0:45 | 0 | 0 | | 0 | 12:45 | 3 | 10 | 4 | 10 | 7 | 20 |
| 1:00 | 0 | 0 | | 0 | 13:00 | 2 | 0 | | 2 | | |
| 1:15 | 0 | 0 | | 0 | 13:15 | 1 | 3 | | 4 | | |
| 1:30 | 0 | 0 | | 0 | 13:30 | 1 | 2 | | 3 | | |
| 1:45 | 1 | 1 | 0 | 1 | 13:45 | 2 | 6 | 1 | 6 | 3 | 12 |
| 2:00 | 0 | 0 | | 0 | 14:00 | 5 | 2 | | 7 | | |
| 2:15 | 0 | 0 | | 0 | 14:15 | 0 | 1 | | 1 | | |
| 2:30 | 0 | 0 | | 0 | 14:30 | 3 | 3 | | 6 | | |
| 2:45 | 0 | 0 | | 0 | 14:45 | 0 | 8 | 2 | 8 | 2 | 16 |
| 3:00 | 0 | 0 | | 0 | 15:00 | 2 | 4 | | 6 | | |
| 3:15 | 0 | 0 | | 0 | 15:15 | 5 | 5 | | 10 | | |
| 3:30 | 1 | 0 | | 1 | 15:30 | 5 | 3 | | 8 | | |
| 3:45 | 1 | 2 | 0 | 1 | 15:45 | 5 | 17 | 5 | 17 | 10 | 34 |
| 4:00 | 0 | 0 | | 0 | 16:00 | 4 | 3 | | 7 | | |
| 4:15 | 2 | 1 | | 3 | 16:15 | 4 | 3 | | 7 | | |
| 4:30 | 0 | 1 | | 1 | 16:30 | 5 | 7 | | 12 | | |
| 4:45 | 0 | 2 | 0 | 2 | 16:45 | 0 | 13 | 4 | 17 | 4 | 30 |
| 5:00 | 0 | 0 | | 0 | 17:00 | 1 | 1 | | 2 | | |
| 5:15 | 3 | 0 | | 3 | 17:15 | 2 | 0 | | 2 | | |
| 5:30 | 1 | 1 | | 2 | 17:30 | 1 | 4 | | 5 | | |
| 5:45 | 3 | 7 | 1 | 4 | 17:45 | 2 | 6 | 0 | 5 | 2 | 11 |
| 6:00 | 2 | 3 | | 5 | 18:00 | 4 | 4 | | 8 | | |
| 6:15 | 0 | 1 | | 1 | 18:15 | 0 | 2 | | 2 | | |
| 6:30 | 1 | 1 | | 2 | 18:30 | 3 | 2 | | 5 | | |
| 6:45 | 4 | 7 | 1 | 5 | 18:45 | 4 | 11 | 2 | 10 | 6 | 21 |
| 7:00 | 3 | 0 | | 3 | 19:00 | 3 | 2 | | 5 | | |
| 7:15 | 2 | 0 | | 2 | 19:15 | 2 | 2 | | 4 | | |
| 7:30 | 3 | 0 | | 3 | 19:30 | 2 | 3 | | 5 | | |
| 7:45 | 6 | 14 | 1 | 7 | 19:45 | 3 | 10 | 1 | 8 | 4 | 18 |
| 8:00 | 2 | 2 | | 4 | 20:00 | 0 | 0 | | 0 | | |
| 8:15 | 1 | 0 | | 1 | 20:15 | 1 | 3 | | 4 | | |
| 8:30 | 3 | 0 | | 3 | 20:30 | 1 | 0 | | 1 | | |
| 8:45 | 1 | 7 | 1 | 2 | 20:45 | 0 | 2 | 1 | 4 | 1 | 6 |
| 9:00 | 0 | 0 | | 0 | 21:00 | 0 | 1 | | 1 | | |
| 9:15 | 1 | 0 | | 1 | 21:15 | 0 | 0 | | 0 | | |
| 9:30 | 0 | 0 | | 0 | 21:30 | 0 | 0 | | 0 | | |
| 9:45 | 1 | 2 | 1 | 2 | 21:45 | 0 | 0 | | 1 | 0 | 1 |
| 10:00 | 1 | 10 | | 11 | 22:00 | 0 | 0 | | 0 | | |
| 10:15 | 0 | 9 | | 9 | 22:15 | 0 | 0 | | 0 | | |
| 10:30 | 3 | 5 | | 8 | 22:30 | 0 | 0 | | 0 | | |
| 10:45 | 1 | 5 | 4 | 5 | 22:45 | 0 | 0 | | 0 | | |
| 11:00 | 1 | 2 | | 3 | 23:00 | 0 | 0 | | 0 | | |
| 11:15 | 0 | 0 | | 0 | 23:15 | 0 | 0 | | 0 | | |
| 11:30 | 1 | 0 | | 1 | 23:30 | 0 | 0 | | 0 | | |
| 11:45 | 0 | 2 | 3 | 3 | 23:45 | 0 | 0 | | 0 | | |
| TOTALS | 49 | 48 | | 97 | TOTALS | 83 | 86 | | 169 | | |
| SPLIT % | 50.5% | 49.5% | | 36.5% | SPLIT % | 49.1% | 50.9% | | 63.5% | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | 132 | 134 | | | | | 266 |
| AM Peak Hour | 7:00 | 10:00 | | 10:00 | PM Peak Hour | 15:15 | 15:45 | | 15:45 | |
| AM Pk Volume | 14 | 28 | | 33 | PM Pk Volume | 19 | 18 | | 36 | |
| Pk Hr Factor | 0.583 | 0.700 | | 0.750 | Pk Hr Factor | 0.950 | 0.643 | | 0.750 | |
| 7 - 9 Volume | 21 | 4 | 0 | 25 | 4 - 6 Volume | 19 | 22 | 0 | 41 | |
| 7 - 9 Peak Hour | 7:00 | 7:15 | | 7:15 | 4 - 6 Peak Hour | 16:00 | 16:00 | | 16:00 | |
| 7 - 9 Pk Volume | 14 | 3 | 0 | 16 | 4 - 6 Pk Volume | 13 | 17 | 0 | 30 | |
| Pk Hr Factor | 0.583 | 0.375 | 0.000 | 0.571 | Pk Hr Factor | 0.650 | 0.607 | 0.000 | 0.625 | |

IN & OUT

Coco's Bakery Restaurant N Dwy 9 E/O Sepulveda Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_009

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|----------------|--------------|--------------|--|--------------|----------------|--------------|--------------|--|--------------|-------|
| | | | | 215 | 584 | | | | | 799 |
| AM Period | IN | OUT | | TOTAL | PM Period | IN | OUT | | TOTAL | |
| 0:00 | 0 | 0 | | 0 | 12:00 | 7 | 16 | | 23 | |
| 0:15 | 0 | 0 | | 0 | 12:15 | 4 | 11 | | 15 | |
| 0:30 | 0 | 1 | | 1 | 12:30 | 1 | 9 | | 10 | |
| 0:45 | 0 | 0 1 | | 0 1 | 12:45 | 1 13 | 13 49 | | 14 62 | |
| 1:00 | 0 | 0 | | 0 | 13:00 | 3 | 14 | | 17 | |
| 1:15 | 0 | 0 | | 0 | 13:15 | 4 | 11 | | 15 | |
| 1:30 | 0 | 0 | | 0 | 13:30 | 4 | 17 | | 21 | |
| 1:45 | 0 | 0 | | 0 | 13:45 | 3 14 | 16 58 | | 19 72 | |
| 2:00 | 0 | 0 | | 0 | 14:00 | 9 | 18 | | 27 | |
| 2:15 | 0 | 0 | | 0 | 14:15 | 7 | 11 | | 18 | |
| 2:30 | 0 | 0 | | 0 | 14:30 | 5 | 22 | | 27 | |
| 2:45 | 0 | 0 | | 0 | 14:45 | 9 30 | 21 72 | | 30 102 | |
| 3:00 | 0 | 0 | | 0 | 15:00 | 3 | 17 | | 20 | |
| 3:15 | 0 | 0 | | 0 | 15:15 | 5 | 15 | | 20 | |
| 3:30 | 0 | 0 | | 0 | 15:30 | 9 | 14 | | 23 | |
| 3:45 | 0 | 0 | | 0 | 15:45 | 15 32 | 11 57 | | 26 89 | |
| 4:00 | 0 | 0 | | 0 | 16:00 | 5 | 15 | | 20 | |
| 4:15 | 0 | 0 | | 0 | 16:15 | 5 | 13 | | 18 | |
| 4:30 | 0 | 0 | | 0 | 16:30 | 7 | 10 | | 17 | |
| 4:45 | 0 | 0 | | 0 | 16:45 | 11 28 | 10 48 | | 21 76 | |
| 5:00 | 1 | 0 | | 1 | 17:00 | 1 | 14 | | 15 | |
| 5:15 | 0 | 0 | | 0 | 17:15 | 1 | 11 | | 12 | |
| 5:30 | 0 | 1 | | 1 | 17:30 | 4 | 9 | | 13 | |
| 5:45 | 1 2 | 0 1 | | 1 3 | 17:45 | 2 8 | 5 39 | | 7 47 | |
| 6:00 | 0 | 0 | | 0 | 18:00 | 1 | 5 | | 6 | |
| 6:15 | 0 | 0 | | 0 | 18:15 | 1 | 5 | | 6 | |
| 6:30 | 3 | 2 | | 5 | 18:30 | 2 | 3 | | 5 | |
| 6:45 | 1 4 | 2 4 | | 3 8 | 18:45 | 0 4 | 4 17 | | 4 21 | |
| 7:00 | 1 | 2 | | 3 | 19:00 | 0 | 6 | | 6 | |
| 7:15 | 0 | 4 | | 4 | 19:15 | 1 | 4 | | 5 | |
| 7:30 | 1 | 4 | | 5 | 19:30 | 1 | 5 | | 6 | |
| 7:45 | 5 7 | 7 17 | | 12 24 | 19:45 | 1 3 | 3 18 | | 4 21 | |
| 8:00 | 3 | 5 | | 8 | 20:00 | 1 | 2 | | 3 | |
| 8:15 | 1 | 11 | | 12 | 20:15 | 1 | 5 | | 6 | |
| 8:30 | 2 | 6 | | 8 | 20:30 | 3 | 2 | | 5 | |
| 8:45 | 2 8 | 8 30 | | 10 38 | 20:45 | 1 6 | 1 10 | | 2 16 | |
| 9:00 | 1 | 4 | | 5 | 21:00 | 2 | 3 | | 5 | |
| 9:15 | 2 | 9 | | 11 | 21:15 | 0 | 3 | | 3 | |
| 9:30 | 0 | 7 | | 7 | 21:30 | 1 | 4 | | 5 | |
| 9:45 | 6 9 | 10 30 | | 16 39 | 21:45 | 0 3 | 0 10 | | 0 13 | |
| 10:00 | 7 | 13 | | 20 | 22:00 | 0 | 2 | | 2 | |
| 10:15 | 6 | 14 | | 20 | 22:15 | 0 | 0 | | 0 | |
| 10:30 | 6 | 17 | | 23 | 22:30 | 0 | 2 | | 2 | |
| 10:45 | 2 21 | 15 59 | | 17 80 | 22:45 | 1 1 | 1 5 | | 2 6 | |
| 11:00 | 7 | 14 | | 21 | 23:00 | 0 | 0 | | 0 | |
| 11:15 | 1 | 14 | | 15 | 23:15 | 0 | 0 | | 0 | |
| 11:30 | 12 | 14 | | 26 | 23:30 | 0 | 0 | | 0 | |
| 11:45 | 2 22 | 17 59 | | 19 81 | 23:45 | 0 | 0 | | 0 | |
| TOTALS | 73 | 201 | | 274 | TOTALS | 142 | 383 | | 525 | |
| SPLIT % | 26.6% | 73.4% | | 34.3% | SPLIT % | 27.0% | 73.0% | | 65.7% | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|--|-------|-----------------|-------|-------|--|-------|-------|
| | | | | 215 | 584 | | | | | 799 |
| AM Peak Hour | 9:45 | 11:15 | | 11:15 | PM Peak Hour | 15:15 | 14:30 | | 14:00 | |
| AM Pk Volume | 25 | 61 | | 83 | PM Pk Volume | 34 | 75 | | 102 | |
| Pk Hr Factor | 0.893 | 0.897 | | 0.798 | Pk Hr Factor | 0.567 | 0.852 | | 0.850 | |
| 7 - 9 Volume | 15 | 47 | | 62 | 4 - 6 Volume | 36 | 87 | | 123 | |
| 7 - 9 Peak Hour | 7:45 | 8:00 | | 7:45 | 4 - 6 Peak Hour | 16:00 | 16:00 | | 16:00 | |
| 7 - 9 Pk Volume | 11 | 30 | | 40 | 4 - 6 Pk Volume | 28 | 48 | | 76 | |
| Pk Hr Factor | 0.550 | 0.682 | | 0.833 | Pk Hr Factor | 0.636 | 0.800 | | 0.905 | |

IN & OUT

Coco's Bakery Restaurant S Dwy 10 E/O Sepulveda Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_010

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|----------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|----|----|-------|
| | | | | 416 | 239 | | | | | 655 |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 11 | 2 | 13 | | | |
| 0:15 | 1 | 1 | 2 | 12:15 | 11 | 7 | 18 | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 10 | 5 | 15 | | | |
| 0:45 | 0 | 1 | 0 | 12:45 | 6 | 38 | 7 | 21 | 13 | 59 |
| 1:00 | 0 | 0 | 0 | 13:00 | 11 | 9 | 20 | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 6 | 6 | 12 | | | |
| 1:30 | 0 | 1 | 1 | 13:30 | 8 | 5 | 13 | | | |
| 1:45 | 0 | 0 | 1 | 13:45 | 10 | 35 | 5 | 25 | 15 | 60 |
| 2:00 | 0 | 0 | 0 | 14:00 | 7 | 3 | 10 | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 9 | 5 | 14 | | | |
| 2:30 | 1 | 0 | 1 | 14:30 | 11 | 4 | 15 | | | |
| 2:45 | 0 | 1 | 0 | 14:45 | 8 | 35 | 7 | 19 | 15 | 54 |
| 3:00 | 0 | 0 | 0 | 15:00 | 7 | 4 | 11 | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 5 | 2 | 7 | | | |
| 3:30 | 0 | 1 | 1 | 15:30 | 6 | 3 | 9 | | | |
| 3:45 | 0 | 0 | 1 | 15:45 | 5 | 23 | 7 | 16 | 12 | 39 |
| 4:00 | 0 | 0 | 0 | 16:00 | 4 | 5 | 9 | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 7 | 10 | 17 | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 7 | 3 | 10 | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 9 | 27 | 6 | 24 | 15 | 51 |
| 5:00 | 0 | 0 | 0 | 17:00 | 9 | 5 | 14 | | | |
| 5:15 | 0 | 1 | 1 | 17:15 | 10 | 4 | 14 | | | |
| 5:30 | 0 | 1 | 1 | 17:30 | 7 | 7 | 14 | | | |
| 5:45 | 2 | 2 | 1 | 17:45 | 7 | 33 | 3 | 19 | 10 | 52 |
| 6:00 | 2 | 0 | 2 | 18:00 | 4 | 2 | 6 | | | |
| 6:15 | 2 | 1 | 3 | 18:15 | 4 | 3 | 7 | | | |
| 6:30 | 0 | 0 | 0 | 18:30 | 1 | 2 | 3 | | | |
| 6:45 | 3 | 7 | 2 | 18:45 | 3 | 12 | 1 | 8 | 4 | 20 |
| 7:00 | 4 | 0 | 4 | 19:00 | 7 | 1 | 8 | | | |
| 7:15 | 7 | 1 | 8 | 19:15 | 3 | 0 | 3 | | | |
| 7:30 | 2 | 0 | 2 | 19:30 | 3 | 0 | 3 | | | |
| 7:45 | 7 | 20 | 3 | 19:45 | 3 | 16 | 7 | 8 | 10 | 24 |
| 8:00 | 9 | 1 | 10 | 20:00 | 2 | 0 | 2 | | | |
| 8:15 | 7 | 1 | 8 | 20:15 | 4 | 2 | 6 | | | |
| 8:30 | 6 | 2 | 8 | 20:30 | 5 | 3 | 8 | | | |
| 8:45 | 10 | 32 | 4 | 20:45 | 1 | 12 | 2 | 7 | 3 | 19 |
| 9:00 | 4 | 2 | 6 | 21:00 | 1 | 2 | 3 | | | |
| 9:15 | 8 | 5 | 13 | 21:15 | 1 | 1 | 2 | | | |
| 9:30 | 9 | 3 | 12 | 21:30 | 2 | 2 | 4 | | | |
| 9:45 | 3 | 24 | 4 | 21:45 | 1 | 5 | 1 | 6 | 2 | 11 |
| 10:00 | 10 | 6 | 16 | 22:00 | 0 | 0 | 0 | | | |
| 10:15 | 12 | 8 | 20 | 22:15 | 1 | 0 | 1 | | | |
| 10:30 | 9 | 7 | 16 | 22:30 | 0 | 1 | 1 | | | |
| 10:45 | 8 | 39 | 3 | 22:45 | 1 | 2 | 2 | 3 | 3 | 5 |
| 11:00 | 13 | 5 | 18 | 23:00 | 0 | 0 | 0 | | | |
| 11:15 | 7 | 3 | 10 | 23:15 | 0 | 2 | 2 | | | |
| 11:30 | 15 | 10 | 25 | 23:30 | 0 | 0 | 0 | | | |
| 11:45 | 17 | 52 | 4 | 23:45 | 0 | 0 | 2 | | | |
| TOTALS | 178 | 81 | 259 | TOTALS | 238 | 158 | 396 | | | |
| SPLIT % | 68.7% | 31.3% | 39.5% | SPLIT % | 60.1% | 39.9% | 60.5% | | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| | | | | 416 | 239 | | | | | 655 |
| AM Peak Hour | 11:30 | 9:45 | 11:30 | PM Peak Hour | 12:00 | 12:15 | 12:15 | | | |
| AM Pk Volume | 54 | 25 | 77 | PM Pk Volume | 38 | 28 | 66 | | | |
| Pk Hr Factor | 0.794 | 0.781 | 0.770 | Pk Hr Factor | 0.864 | 0.778 | 0.825 | | | |
| 7 - 9 Volume | 52 | 12 | 0 | 4 - 6 Volume | 60 | 43 | 0 | 0 | 103 | |
| 7 - 9 Peak Hour | 8:00 | 8:00 | 8:00 | 4 - 6 Peak Hour | 16:30 | 16:00 | 16:45 | | | |
| 7 - 9 Pk Volume | 32 | 8 | 0 | 4 - 6 Pk Volume | 35 | 24 | 0 | 0 | 57 | |
| Pk Hr Factor | 0.800 | 0.500 | 0.000 | Pk Hr Factor | 0.875 | 0.600 | 0.000 | 0.000 | 0.950 | |

IN & OUT

Valvoline Dwy 1 E/O Sepulveda Blvd

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5297_001

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|----------------|--------|-----|--------------|----------------|--------|------|--------------|----|--|-------|
| | | | | 0 | 85 | | | | | 85 |
| AM Period | IN | OUT | TOTAL | PM Period | IN | OUT | TOTAL | | | |
| 0:00 | 0 | 0 | 0 | 12:00 | 0 | 5 | 5 | | | |
| 0:15 | 0 | 0 | 0 | 12:15 | 0 | 4 | 4 | | | |
| 0:30 | 0 | 0 | 0 | 12:30 | 0 | 4 | 4 | | | |
| 0:45 | 0 | 0 | 0 | 12:45 | 0 | 2 15 | 2 | 15 | | |
| 1:00 | 0 | 0 | 0 | 13:00 | 0 | 5 | 5 | | | |
| 1:15 | 0 | 0 | 0 | 13:15 | 0 | 1 | 1 | | | |
| 1:30 | 0 | 0 | 0 | 13:30 | 0 | 2 | 2 | | | |
| 1:45 | 0 | 0 | 0 | 13:45 | 0 | 5 13 | 5 | 13 | | |
| 2:00 | 0 | 0 | 0 | 14:00 | 0 | 3 | 3 | | | |
| 2:15 | 0 | 0 | 0 | 14:15 | 0 | 0 | 0 | | | |
| 2:30 | 0 | 0 | 0 | 14:30 | 0 | 1 | 1 | | | |
| 2:45 | 0 | 0 | 0 | 14:45 | 0 | 0 4 | 0 | 4 | | |
| 3:00 | 0 | 0 | 0 | 15:00 | 0 | 0 | 0 | | | |
| 3:15 | 0 | 0 | 0 | 15:15 | 0 | 1 | 1 | | | |
| 3:30 | 0 | 0 | 0 | 15:30 | 0 | 0 | 0 | | | |
| 3:45 | 0 | 0 | 0 | 15:45 | 0 | 1 2 | 1 | 2 | | |
| 4:00 | 0 | 0 | 0 | 16:00 | 0 | 1 | 1 | | | |
| 4:15 | 0 | 0 | 0 | 16:15 | 0 | 0 | 0 | | | |
| 4:30 | 0 | 0 | 0 | 16:30 | 0 | 3 | 3 | | | |
| 4:45 | 0 | 0 | 0 | 16:45 | 0 | 3 7 | 3 | 7 | | |
| 5:00 | 0 | 0 | 0 | 17:00 | 0 | 0 | 0 | | | |
| 5:15 | 0 | 0 | 0 | 17:15 | 0 | 5 | 5 | | | |
| 5:30 | 0 | 0 | 0 | 17:30 | 0 | 9 | 9 | | | |
| 5:45 | 0 | 0 | 0 | 17:45 | 0 | 0 14 | 0 | 14 | | |
| 6:00 | 0 | 0 | 0 | 18:00 | 0 | 2 | 2 | | | |
| 6:15 | 0 | 0 | 0 | 18:15 | 0 | 2 | 2 | | | |
| 6:30 | 0 | 0 | 0 | 18:30 | 0 | 0 | 0 | | | |
| 6:45 | 0 | 0 | 0 | 18:45 | 0 | 1 5 | 1 | 5 | | |
| 7:00 | 0 | 0 | 0 | 19:00 | 0 | 2 | 2 | | | |
| 7:15 | 0 | 0 | 0 | 19:15 | 0 | 0 | 0 | | | |
| 7:30 | 0 | 0 | 0 | 19:30 | 0 | 0 | 0 | | | |
| 7:45 | 0 | 1 1 | 1 1 | 19:45 | 0 | 1 3 | 1 | 3 | | |
| 8:00 | 0 | 0 | 0 | 20:00 | 0 | 0 | 0 | | | |
| 8:15 | 0 | 1 | 1 | 20:15 | 0 | 1 | 1 | | | |
| 8:30 | 0 | 0 | 0 | 20:30 | 0 | 0 | 0 | | | |
| 8:45 | 0 | 2 3 | 2 3 | 20:45 | 0 | 0 1 | 0 | 1 | | |
| 9:00 | 0 | 1 | 1 | 21:00 | 0 | 1 | 1 | | | |
| 9:15 | 0 | 0 | 0 | 21:15 | 0 | 0 | 0 | | | |
| 9:30 | 0 | 0 | 0 | 21:30 | 0 | 0 | 0 | | | |
| 9:45 | 0 | 1 2 | 1 2 | 21:45 | 0 | 0 1 | 0 | 1 | | |
| 10:00 | 0 | 0 | 0 | 22:00 | 0 | 0 | 0 | | | |
| 10:15 | 0 | 3 | 3 | 22:15 | 0 | 0 | 0 | | | |
| 10:30 | 0 | 1 | 1 | 22:30 | 0 | 0 | 0 | | | |
| 10:45 | 0 | 2 6 | 2 6 | 22:45 | 0 | 0 | 0 | | | |
| 11:00 | 0 | 2 | 2 | 23:00 | 0 | 0 | 0 | | | |
| 11:15 | 0 | 1 | 1 | 23:15 | 0 | 0 | 0 | | | |
| 11:30 | 0 | 3 | 3 | 23:30 | 0 | 0 | 0 | | | |
| 11:45 | 0 | 2 8 | 2 8 | 23:45 | 0 | 0 | 0 | | | |
| TOTALS | 20 | | 20 | TOTALS | 65 | | 65 | | | |
| SPLIT % | 100.0% | | 23.5% | SPLIT % | 100.0% | | 76.5% | | | |

| DAILY TOTALS | | | | IN | OUT | | | | | Total |
|-----------------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| | | | | 0 | 85 | | | | | 85 |
| AM Peak Hour | 11:45 | | 11:45 | PM Peak Hour | 16:45 | | 16:45 | | | |
| AM Pk Volume | 15 | | 15 | PM Pk Volume | 17 | | 17 | | | |
| Pk Hr Factor | 0.750 | | 0.750 | Pk Hr Factor | 0.472 | | 0.472 | | | |
| 7 - 9 Volume | 0 | 4 | 0 | 4 - 6 Volume | 0 | 21 | 0 | 0 | 21 | |
| 7 - 9 Peak Hour | 8:00 | | 8:00 | 4 - 6 Peak Hour | 16:45 | | 16:45 | | | |
| 7 - 9 Pk Volume | 0 | 3 | 0 | 4 - 6 Pk Volume | 0 | 17 | 0 | 0 | 17 | |
| Pk Hr Factor | 0.000 | 0.375 | 0.000 | Pk Hr Factor | 0.000 | 0.472 | 0.000 | 0.000 | 0.472 | |

Street Segment Counts

VOLUME

Cota St Bet. Jefferson Blvd & Pickford Way

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_001

| DAILY TOTALS | | | | | | NB | SB | EB | WB | Total | |
|----------------|----|----|-------|-------|-------|----------------|----|-----|-------|-------|-------|
| | | | | | | 0 | 0 | 427 | 327 | 754 | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | | | 0 | 0 | 0 | 12:00 | | | 15 | 6 | 21 |
| 00:15 | | | 2 | 1 | 3 | 12:15 | | | 3 | 5 | 8 |
| 00:30 | | | 1 | 0 | 1 | 12:30 | | | 8 | 4 | 12 |
| 00:45 | | | 0 | 3 | 0 | 12:45 | | | 6 | 32 | 12 |
| 01:00 | | | 1 | 0 | 1 | 13:00 | | | 3 | 5 | 8 |
| 01:15 | | | 0 | 0 | 0 | 13:15 | | | 8 | 0 | 8 |
| 01:30 | | | 0 | 0 | 0 | 13:30 | | | 7 | 4 | 11 |
| 01:45 | | | 0 | 1 | 0 | 13:45 | | | 8 | 26 | 14 |
| 02:00 | | | 0 | 0 | 0 | 14:00 | | | 4 | 4 | 8 |
| 02:15 | | | 0 | 0 | 0 | 14:15 | | | 10 | 7 | 17 |
| 02:30 | | | 1 | 0 | 1 | 14:30 | | | 15 | 5 | 20 |
| 02:45 | | | 0 | 1 | 0 | 14:45 | | | 9 | 38 | 17 |
| 03:00 | | | 0 | 0 | 0 | 15:00 | | | 12 | 10 | 22 |
| 03:15 | | | 0 | 0 | 0 | 15:15 | | | 9 | 5 | 14 |
| 03:30 | | | 1 | 0 | 1 | 15:30 | | | 6 | 5 | 11 |
| 03:45 | | | 0 | 1 | 0 | 15:45 | | | 6 | 33 | 15 |
| 04:00 | | | 0 | 1 | 1 | 16:00 | | | 8 | 3 | 11 |
| 04:15 | | | 1 | 0 | 1 | 16:15 | | | 9 | 5 | 14 |
| 04:30 | | | 0 | 0 | 0 | 16:30 | | | 12 | 4 | 16 |
| 04:45 | | | 0 | 1 | 0 | 16:45 | | | 10 | 39 | 20 |
| 05:00 | | | 1 | 0 | 1 | 17:00 | | | 10 | 3 | 13 |
| 05:15 | | | 0 | 0 | 0 | 17:15 | | | 16 | 3 | 19 |
| 05:30 | | | 0 | 0 | 0 | 17:30 | | | 15 | 4 | 19 |
| 05:45 | | | 1 | 2 | 2 | 17:45 | | | 17 | 58 | 24 |
| 06:00 | | | 2 | 0 | 2 | 18:00 | | | 16 | 8 | 24 |
| 06:15 | | | 0 | 3 | 3 | 18:15 | | | 15 | 8 | 23 |
| 06:30 | | | 3 | 1 | 4 | 18:30 | | | 7 | 2 | 9 |
| 06:45 | | | 2 | 7 | 1 | 18:45 | | | 6 | 44 | 15 |
| 07:00 | | | 0 | 4 | 4 | 19:00 | | | 9 | 7 | 16 |
| 07:15 | | | 1 | 2 | 3 | 19:15 | | | 3 | 3 | 6 |
| 07:30 | | | 1 | 4 | 5 | 19:30 | | | 6 | 3 | 9 |
| 07:45 | | | 3 | 5 | 6 | 19:45 | | | 3 | 21 | 5 |
| 08:00 | | | 13 | 12 | 25 | 20:00 | | | 3 | 2 | 5 |
| 08:15 | | | 11 | 7 | 18 | 20:15 | | | 4 | 6 | 10 |
| 08:30 | | | 2 | 8 | 10 | 20:30 | | | 10 | 6 | 16 |
| 08:45 | | | 8 | 34 | 7 | 20:45 | | | 3 | 20 | 5 |
| 09:00 | | | 4 | 7 | 11 | 21:00 | | | 1 | 1 | 2 |
| 09:15 | | | 2 | 3 | 5 | 21:15 | | | 7 | 4 | 11 |
| 09:30 | | | 4 | 2 | 6 | 21:30 | | | 1 | 4 | 5 |
| 09:45 | | | 1 | 11 | 7 | 21:45 | | | 2 | 11 | 5 |
| 10:00 | | | 1 | 4 | 5 | 22:00 | | | 0 | 2 | 2 |
| 10:15 | | | 3 | 2 | 5 | 22:15 | | | 2 | 1 | 3 |
| 10:30 | | | 2 | 5 | 7 | 22:30 | | | 0 | 1 | 1 |
| 10:45 | | | 2 | 8 | 10 | 22:45 | | | 1 | 3 | 1 |
| 11:00 | | | 4 | 5 | 9 | 23:00 | | | 2 | 1 | 3 |
| 11:15 | | | 6 | 4 | 10 | 23:15 | | | 0 | 3 | 3 |
| 11:30 | | | 10 | 4 | 14 | 23:30 | | | 0 | 1 | 1 |
| 11:45 | | | 5 | 25 | 8 | 23:45 | | | 1 | 3 | 1 |
| TOTALS | | | 99 | 120 | 219 | TOTALS | | | 328 | 207 | 535 |
| SPLIT % | | | 45.2% | 54.8% | 29.0% | SPLIT % | | | 61.3% | 38.7% | 71.0% |

| DAILY TOTALS | | | | | | NB | SB | EB | WB | Total | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | | | 0 | 0 | 427 | 327 | 754 | |
| AM Peak Hour | | | 11:15 | 08:00 | 08:00 | PM Peak Hour | | | 17:15 | 14:15 | 17:30 |
| AM Pk Volume | | | 36 | 34 | 68 | PM Pk Volume | | | 64 | 30 | 90 |
| Pk Hr Factor | | | 0.600 | 0.708 | 0.680 | Pk Hr Factor | | | 0.941 | 0.750 | 0.938 |
| 7 - 9 Volume | 0 | 0 | 39 | 50 | 89 | 4 - 6 Volume | 0 | 0 | 97 | 39 | 136 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 17:00 | 16:00 | 17:00 |
| 7 - 9 Pk Volume | 0 | 0 | 34 | 34 | 68 | 4 - 6 Pk Volume | 0 | 0 | 58 | 22 | 75 |
| Pk Hr Factor | 0.000 | 0.000 | 0.654 | 0.708 | 0.680 | Pk Hr Factor | 0.000 | 0.000 | 0.853 | 0.550 | 0.781 |

VOLUME

Dobson Way Bet. Jefferson Blvd & Pickford Way

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_002

| DAILY TOTALS | | | | | NB | SB | EB | | WB | Total | |
|----------------|----|----|-------|-------|--------------|----------------|-------|-----|-------|-------|--------------|
| | | | | | 0 | 0 | 1,026 | 971 | 1,997 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | | | 0 | 0 | 0 | 12:00 | | | 11 | 11 | 22 |
| 00:15 | | | 0 | 2 | 2 | 12:15 | | | 12 | 16 | 28 |
| 00:30 | | | 0 | 3 | 3 | 12:30 | | | 8 | 7 | 15 |
| 00:45 | | | 0 | 0 | 0 | 12:45 | | 9 | 40 | 10 | 44 |
| 01:00 | | | 0 | 0 | 0 | 13:00 | | | 10 | 8 | 18 |
| 01:15 | | | 1 | 2 | 3 | 13:15 | | | 8 | 9 | 17 |
| 01:30 | | | 1 | 1 | 2 | 13:30 | | | 8 | 7 | 15 |
| 01:45 | | | 1 | 3 | 0 | 13:45 | | 6 | 32 | 16 | 40 |
| 02:00 | | | 0 | 0 | 0 | 14:00 | | | 5 | 24 | 29 |
| 02:15 | | | 0 | 0 | 0 | 14:15 | | | 22 | 26 | 48 |
| 02:30 | | | 0 | 1 | 1 | 14:30 | | | 39 | 15 | 54 |
| 02:45 | | | 0 | 0 | 0 | 14:45 | | 20 | 86 | 18 | 83 |
| 03:00 | | | 0 | 0 | 0 | 15:00 | | | 23 | 34 | 57 |
| 03:15 | | | 1 | 1 | 2 | 15:15 | | | 30 | 15 | 45 |
| 03:30 | | | 0 | 0 | 0 | 15:30 | | | 24 | 9 | 33 |
| 03:45 | | | 1 | 2 | 0 | 15:45 | | 20 | 97 | 15 | 73 |
| 04:00 | | | 1 | 0 | 1 | 16:00 | | | 15 | 16 | 31 |
| 04:15 | | | 0 | 0 | 0 | 16:15 | | | 20 | 14 | 34 |
| 04:30 | | | 0 | 0 | 0 | 16:30 | | | 16 | 16 | 32 |
| 04:45 | | | 3 | 4 | 0 | 16:45 | | 18 | 69 | 22 | 68 |
| 05:00 | | | 1 | 1 | 2 | 17:00 | | | 17 | 13 | 30 |
| 05:15 | | | 3 | 0 | 3 | 17:15 | | | 26 | 18 | 44 |
| 05:30 | | | 2 | 1 | 3 | 17:30 | | | 25 | 27 | 52 |
| 05:45 | | | 3 | 9 | 0 | 17:45 | | 17 | 85 | 14 | 72 |
| 06:00 | | | 3 | 3 | 6 | 18:00 | | | 15 | 19 | 34 |
| 06:15 | | | 6 | 1 | 7 | 18:15 | | | 19 | 13 | 32 |
| 06:30 | | | 4 | 3 | 7 | 18:30 | | | 19 | 15 | 34 |
| 06:45 | | | 7 | 20 | 6 | 18:45 | | 9 | 62 | 12 | 59 |
| 07:00 | | | 18 | 32 | 50 | 19:00 | | | 15 | 18 | 33 |
| 07:15 | | | 21 | 16 | 37 | 19:15 | | | 9 | 20 | 29 |
| 07:30 | | | 21 | 28 | 49 | 19:30 | | | 10 | 14 | 24 |
| 07:45 | | | 51 | 111 | 45 | 19:45 | | 9 | 43 | 13 | 65 |
| 08:00 | | | 59 | 70 | 129 | 20:00 | | | 8 | 9 | 17 |
| 08:15 | | | 32 | 21 | 53 | 20:15 | | | 10 | 14 | 24 |
| 08:30 | | | 20 | 15 | 35 | 20:30 | | | 10 | 12 | 22 |
| 08:45 | | | 25 | 136 | 19 | 20:45 | | 6 | 34 | 3 | 38 |
| 09:00 | | | 12 | 16 | 28 | 21:00 | | | 4 | 8 | 12 |
| 09:15 | | | 19 | 3 | 22 | 21:15 | | | 7 | 5 | 12 |
| 09:30 | | | 15 | 7 | 22 | 21:30 | | | 7 | 7 | 14 |
| 09:45 | | | 6 | 52 | 11 | 21:45 | | 4 | 22 | 8 | 28 |
| 10:00 | | | 10 | 11 | 21 | 22:00 | | | 6 | 6 | 12 |
| 10:15 | | | 14 | 8 | 22 | 22:15 | | | 2 | 3 | 5 |
| 10:30 | | | 15 | 7 | 22 | 22:30 | | | 2 | 1 | 3 |
| 10:45 | | | 17 | 56 | 4 | 22:45 | | 2 | 12 | 4 | 14 |
| 11:00 | | | 12 | 14 | 26 | 23:00 | | | 2 | 3 | 5 |
| 11:15 | | | 8 | 11 | 19 | 23:15 | | | 1 | 2 | 3 |
| 11:30 | | | 9 | 6 | 15 | 23:30 | | | 0 | 3 | 3 |
| 11:45 | | | 17 | 46 | 9 | 23:45 | | 2 | 5 | 1 | 9 |
| TOTALS | | | 439 | 378 | 817 | TOTALS | | | 587 | 593 | 1180 |
| SPLIT % | | | 53.7% | 46.3% | 40.9% | SPLIT % | | | 49.7% | 50.3% | 59.1% |

| DAILY TOTALS | | | | | NB | SB | EB | | WB | Total | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | | 0 | 0 | 1,026 | 971 | 1,997 | | |
| AM Peak Hour | | | 07:30 | 07:30 | 07:30 | PM Peak Hour | | | 14:30 | 14:15 | 14:15 |
| AM Pk Volume | | | 163 | 164 | 327 | PM Pk Volume | | | 112 | 93 | 197 |
| Pk Hr Factor | | | 0.691 | 0.586 | 0.634 | Pk Hr Factor | | | 0.718 | 0.684 | 0.864 |
| 7 - 9 Volume | 0 | 0 | 247 | 246 | 493 | 4 - 6 Volume | 0 | 0 | 154 | 140 | 294 |
| 7 - 9 Peak Hour | | | 07:30 | 07:30 | 07:30 | 4 - 6 Peak Hour | | | 16:45 | 16:45 | 16:45 |
| 7 - 9 Pk Volume | 0 | 0 | 163 | 164 | 327 | 4 - 6 Pk Volume | 0 | 0 | 86 | 80 | 166 |
| Pk Hr Factor | 0.000 | 0.000 | 0.691 | 0.586 | 0.634 | Pk Hr Factor | 0.000 | 0.000 | 0.827 | 0.741 | 0.798 |

VOLUME

Janisann Ave Bet. Sepulveda Blvd & Kalein Dr

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_003

| DAILY TOTALS | | | | | NB | SB | | | | | | Total |
|----------------|----|----|-------|-------|--------------|----------------|-----|----|-------|-------|--------------|-------|
| | | | | | 0 | 0 | | | | | | 686 |
| | | | | | | | 282 | | | | | 404 |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL | |
| 00:00 | | | 0 | 0 | 0 | 12:00 | | | 4 | 1 | 5 | |
| 00:15 | | | 1 | 1 | 2 | 12:15 | | | 8 | 8 | 16 | |
| 00:30 | | | 0 | 0 | 0 | 12:30 | | | 2 | 2 | 4 | |
| 00:45 | | | 0 | 1 | 0 | 12:45 | | | 5 | 19 | 4 | |
| 01:00 | | | 0 | 0 | 0 | 13:00 | | | 2 | 2 | 4 | |
| 01:15 | | | 0 | 0 | 0 | 13:15 | | | 1 | 5 | 6 | |
| 01:30 | | | 0 | 1 | 0 | 13:30 | | | 6 | 8 | 14 | |
| 01:45 | | | 0 | 0 | 1 | 13:45 | | | 3 | 12 | 9 | |
| 02:00 | | | 0 | 0 | 0 | 14:00 | | | 7 | 4 | 11 | |
| 02:15 | | | 0 | 0 | 0 | 14:15 | | | 5 | 4 | 9 | |
| 02:30 | | | 0 | 0 | 0 | 14:30 | | | 5 | 1 | 6 | |
| 02:45 | | | 0 | 0 | 0 | 14:45 | | | 2 | 19 | 2 | |
| 03:00 | | | 0 | 0 | 0 | 15:00 | | | 3 | 4 | 7 | |
| 03:15 | | | 0 | 0 | 0 | 15:15 | | | 4 | 6 | 10 | |
| 03:30 | | | 0 | 0 | 0 | 15:30 | | | 6 | 5 | 11 | |
| 03:45 | | | 0 | 0 | 0 | 15:45 | | | 8 | 21 | 10 | |
| 04:00 | | | 0 | 1 | 1 | 16:00 | | | 8 | 12 | 20 | |
| 04:15 | | | 0 | 0 | 0 | 16:15 | | | 6 | 8 | 14 | |
| 04:30 | | | 1 | 2 | 3 | 16:30 | | | 8 | 11 | 19 | |
| 04:45 | | | 0 | 1 | 0 | 16:45 | | | 3 | 25 | 13 | |
| 05:00 | | | 0 | 1 | 1 | 17:00 | | | 7 | 18 | 25 | |
| 05:15 | | | 1 | 0 | 1 | 17:15 | | | 5 | 16 | 21 | |
| 05:30 | | | 0 | 0 | 0 | 17:30 | | | 5 | 24 | 29 | |
| 05:45 | | | 0 | 1 | 1 | 17:45 | | | 2 | 19 | 16 | |
| 06:00 | | | 1 | 0 | 1 | 18:00 | | | 4 | 10 | 14 | |
| 06:15 | | | 1 | 1 | 2 | 18:15 | | | 2 | 15 | 17 | |
| 06:30 | | | 0 | 2 | 2 | 18:30 | | | 7 | 8 | 15 | |
| 06:45 | | | 0 | 2 | 1 | 18:45 | | | 4 | 17 | 12 | |
| 07:00 | | | 5 | 4 | 9 | 19:00 | | | 5 | 11 | 16 | |
| 07:15 | | | 2 | 1 | 3 | 19:15 | | | 2 | 8 | 10 | |
| 07:30 | | | 4 | 4 | 8 | 19:30 | | | 6 | 7 | 13 | |
| 07:45 | | | 10 | 21 | 6 | 19:45 | | | 2 | 15 | 4 | |
| 08:00 | | | 15 | 6 | 21 | 20:00 | | | 6 | 5 | 11 | |
| 08:15 | | | 8 | 7 | 15 | 20:15 | | | 2 | 6 | 8 | |
| 08:30 | | | 7 | 4 | 11 | 20:30 | | | 1 | 5 | 6 | |
| 08:45 | | | 11 | 41 | 6 | 20:45 | | | 3 | 12 | 3 | |
| 09:00 | | | 6 | 6 | 12 | 21:00 | | | 4 | 1 | 5 | |
| 09:15 | | | 6 | 4 | 10 | 21:15 | | | 3 | 1 | 4 | |
| 09:30 | | | 3 | 6 | 9 | 21:30 | | | 4 | 3 | 7 | |
| 09:45 | | | 6 | 21 | 3 | 21:45 | | | 1 | 12 | 5 | |
| 10:00 | | | 4 | 4 | 8 | 22:00 | | | 2 | 5 | 7 | |
| 10:15 | | | 2 | 4 | 6 | 22:15 | | | 2 | 4 | 6 | |
| 10:30 | | | 1 | 3 | 4 | 22:30 | | | 1 | 2 | 3 | |
| 10:45 | | | 1 | 8 | 1 | 22:45 | | | 0 | 5 | 1 | |
| 11:00 | | | 2 | 4 | 6 | 23:00 | | | 0 | 0 | 0 | |
| 11:15 | | | 2 | 3 | 5 | 23:15 | | | 0 | 0 | 0 | |
| 11:30 | | | 4 | 4 | 8 | 23:30 | | | 0 | 0 | 0 | |
| 11:45 | | | 2 | 10 | 4 | 23:45 | | | 0 | 0 | 0 | |
| TOTALS | | | 106 | 95 | 201 | TOTALS | | | 176 | 309 | 485 | |
| SPLIT % | | | 52.7% | 47.3% | 29.3% | SPLIT % | | | 36.3% | 63.7% | 70.7% | |

| DAILY TOTALS | | | | | NB | SB | | | | | | Total |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| | | | | | 0 | 0 | | | | | | 686 |
| | | | | | | | 282 | | | | | 404 |
| AM Peak Hour | | | 08:00 | 07:30 | 08:00 | PM Peak Hour | | | 15:45 | 17:00 | 17:00 | |
| AM Pk Volume | | | 41 | 23 | 64 | PM Pk Volume | | | 30 | 74 | 93 | |
| Pk Hr Factor | | | 0.683 | 0.821 | 0.762 | Pk Hr Factor | | | 0.938 | 0.771 | 0.802 | |
| 7 - 9 Volume | 0 | 0 | 62 | 38 | 100 | 4 - 6 Volume | 0 | 0 | 44 | 118 | 162 | |
| 7 - 9 Peak Hour | | | 08:00 | 07:30 | 08:00 | 4 - 6 Peak Hour | | | 16:00 | 17:00 | 17:00 | |
| 7 - 9 Pk Volume | 0 | 0 | 41 | 23 | 64 | 4 - 6 Pk Volume | 0 | 0 | 25 | 74 | 93 | |
| Pk Hr Factor | 0.000 | 0.000 | 0.683 | 0.821 | 0.762 | Pk Hr Factor | 0.000 | 0.000 | 0.781 | 0.771 | 0.802 | |

VOLUME

Sawtelle Blvd Bet. Stevens Ave & Malat Way

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_004

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | | | | |
|----------------|----|----|----|-------|-------|--------------|----------------|-------|-------|-------|-------|--------------|-----|-----|
| | | | | | 0 | 0 | 2,926 | 2,979 | 5,905 | | | | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL | | | |
| 00:00 | | | 1 | 3 | 4 | 12:00 | | | 42 | 58 | 100 | | | |
| 00:15 | | | 2 | 2 | 4 | 12:15 | | | 44 | 40 | 84 | | | |
| 00:30 | | | 0 | 0 | 0 | 12:30 | | | 42 | 54 | 96 | | | |
| 00:45 | | | 3 | 6 | 1 | 12:45 | | 6 | 54 | 182 | 57 | 209 | 111 | 391 |
| 01:00 | | | 3 | 1 | 4 | 13:00 | | | 50 | 51 | 101 | | | |
| 01:15 | | | 1 | 1 | 2 | 13:15 | | | 41 | 37 | 78 | | | |
| 01:30 | | | 0 | 1 | 1 | 13:30 | | | 59 | 47 | 106 | | | |
| 01:45 | | | 0 | 4 | 0 | 13:45 | | 3 | 48 | 198 | 48 | 183 | 96 | 381 |
| 02:00 | | | 2 | 1 | 3 | 14:00 | | | 39 | 45 | 84 | | | |
| 02:15 | | | 1 | 2 | 3 | 14:15 | | | 48 | 55 | 103 | | | |
| 02:30 | | | 1 | 1 | 2 | 14:30 | | | 52 | 39 | 91 | | | |
| 02:45 | | | 0 | 4 | 0 | 14:45 | | 4 | 61 | 200 | 57 | 196 | 118 | 396 |
| 03:00 | | | 0 | 0 | 0 | 15:00 | | | 69 | 52 | 121 | | | |
| 03:15 | | | 0 | 0 | 0 | 15:15 | | | 41 | 140 | 181 | | | |
| 03:30 | | | 0 | 0 | 0 | 15:30 | | | 84 | 58 | 142 | | | |
| 03:45 | | | 1 | 1 | 1 | 15:45 | | 1 | 68 | 262 | 46 | 296 | 114 | 558 |
| 04:00 | | | 1 | 0 | 1 | 16:00 | | | 68 | 59 | 127 | | | |
| 04:15 | | | 1 | 0 | 1 | 16:15 | | | 80 | 49 | 129 | | | |
| 04:30 | | | 0 | 1 | 1 | 16:30 | | | 90 | 48 | 138 | | | |
| 04:45 | | | 0 | 2 | 3 | 16:45 | | 4 | 78 | 316 | 66 | 222 | 144 | 538 |
| 05:00 | | | 1 | 3 | 4 | 17:00 | | | 98 | 52 | 150 | | | |
| 05:15 | | | 3 | 2 | 5 | 17:15 | | | 86 | 42 | 128 | | | |
| 05:30 | | | 2 | 7 | 9 | 17:30 | | | 95 | 44 | 139 | | | |
| 05:45 | | | 2 | 8 | 10 | 17:45 | | 22 | 85 | 364 | 41 | 179 | 126 | 543 |
| 06:00 | | | 6 | 6 | 12 | 18:00 | | | 67 | 48 | 115 | | | |
| 06:15 | | | 5 | 9 | 14 | 18:15 | | | 79 | 40 | 119 | | | |
| 06:30 | | | 11 | 19 | 30 | 18:30 | | | 70 | 26 | 96 | | | |
| 06:45 | | | 13 | 35 | 21 | 18:45 | | 55 | 56 | 272 | 38 | 152 | 94 | 424 |
| 07:00 | | | 13 | 29 | 42 | 19:00 | | | 45 | 42 | 87 | | | |
| 07:15 | | | 22 | 39 | 61 | 19:15 | | | 52 | 25 | 77 | | | |
| 07:30 | | | 26 | 72 | 98 | 19:30 | | | 37 | 20 | 57 | | | |
| 07:45 | | | 26 | 87 | 73 | 19:45 | | 213 | 26 | 160 | 20 | 107 | 46 | 267 |
| 08:00 | | | 43 | 92 | 135 | 20:00 | | | 23 | 20 | 43 | | | |
| 08:15 | | | 47 | 92 | 139 | 20:15 | | | 32 | 24 | 56 | | | |
| 08:30 | | | 45 | 127 | 172 | 20:30 | | | 28 | 18 | 46 | | | |
| 08:45 | | | 56 | 191 | 92 | 20:45 | | 403 | 19 | 102 | 15 | 77 | 34 | 179 |
| 09:00 | | | 40 | 76 | 116 | 21:00 | | | 17 | 16 | 33 | | | |
| 09:15 | | | 43 | 41 | 84 | 21:15 | | | 7 | 12 | 19 | | | |
| 09:30 | | | 22 | 40 | 62 | 21:30 | | | 17 | 14 | 31 | | | |
| 09:45 | | | 35 | 140 | 36 | 21:45 | | 193 | 7 | 48 | 14 | 56 | 21 | 104 |
| 10:00 | | | 28 | 34 | 62 | 22:00 | | | 11 | 16 | 27 | | | |
| 10:15 | | | 36 | 39 | 75 | 22:15 | | | 15 | 11 | 26 | | | |
| 10:30 | | | 27 | 43 | 70 | 22:30 | | | 8 | 8 | 16 | | | |
| 10:45 | | | 37 | 128 | 46 | 22:45 | | 162 | 1 | 35 | 8 | 43 | 9 | 78 |
| 11:00 | | | 43 | 40 | 83 | 23:00 | | | 5 | 4 | 9 | | | |
| 11:15 | | | 42 | 54 | 96 | 23:15 | | | 6 | 2 | 8 | | | |
| 11:30 | | | 34 | 52 | 86 | 23:30 | | | 2 | 1 | 3 | | | |
| 11:45 | | | 44 | 163 | 39 | 23:45 | | 185 | 5 | 18 | 1 | 8 | 6 | 26 |
| TOTALS | | | | 769 | 1251 | 2020 | TOTALS | | | 2157 | 1728 | 3885 | | |
| SPLIT % | | | | 38.1% | 61.9% | 34.2% | SPLIT % | | | 55.5% | 44.5% | 65.8% | | |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | | 0 | 0 | 2,926 | 2,979 | 5,905 | | |
| AM Peak Hour | | | 08:00 | 08:00 | 08:00 | PM Peak Hour | | | 17:00 | 14:45 | 15:15 |
| AM Pk Volume | | | 191 | 403 | 594 | PM Pk Volume | | | 364 | 307 | 564 |
| Pk Hr Factor | | | 0.853 | 0.793 | 0.863 | Pk Hr Factor | | | 0.929 | 0.548 | 0.779 |
| 7 - 9 Volume | 0 | 0 | 278 | 616 | 894 | 4 - 6 Volume | 0 | 0 | 680 | 401 | 1081 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 17:00 | 16:00 | 16:15 |
| 7 - 9 Pk Volume | 0 | 0 | 191 | 403 | 594 | 4 - 6 Pk Volume | 0 | 0 | 364 | 222 | 561 |
| Pk Hr Factor | 0.000 | 0.000 | 0.853 | 0.793 | 0.863 | Pk Hr Factor | 0.000 | 0.000 | 0.929 | 0.841 | 0.935 |

VOLUME

Sawtelle Blvd Bet. Sepulveda Blvd & Segrell Way

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_005

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|----------------|----|----|-------|-------|-------|----------------|-------|-------|--------|-------|-------|
| | | | | | 0 | 0 | 5,572 | 4,632 | 10,204 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | | | 3 | 2 | 5 | 12:00 | | | 60 | 58 | 118 |
| 00:15 | | | 1 | 3 | 4 | 12:15 | | | 82 | 58 | 140 |
| 00:30 | | | 3 | 2 | 5 | 12:30 | | | 82 | 65 | 147 |
| 00:45 | | | 4 | 11 | 15 | 12:45 | | | 74 | 298 | 372 |
| 01:00 | | | 6 | 1 | 7 | 13:00 | | | 65 | 62 | 127 |
| 01:15 | | | 1 | 2 | 3 | 13:15 | | | 75 | 59 | 134 |
| 01:30 | | | 5 | 0 | 5 | 13:30 | | | 84 | 48 | 132 |
| 01:45 | | | 0 | 12 | 12 | 13:45 | | | 81 | 305 | 386 |
| 02:00 | | | 2 | 0 | 2 | 14:00 | | | 100 | 60 | 160 |
| 02:15 | | | 2 | 1 | 3 | 14:15 | | | 103 | 73 | 176 |
| 02:30 | | | 3 | 2 | 5 | 14:30 | | | 86 | 75 | 161 |
| 02:45 | | | 1 | 8 | 9 | 14:45 | | | 115 | 404 | 519 |
| 03:00 | | | 0 | 1 | 1 | 15:00 | | | 117 | 108 | 225 |
| 03:15 | | | 0 | 1 | 1 | 15:15 | | | 140 | 112 | 252 |
| 03:30 | | | 3 | 0 | 3 | 15:30 | | | 152 | 106 | 258 |
| 03:45 | | | 3 | 6 | 9 | 15:45 | | | 123 | 532 | 655 |
| 04:00 | | | 1 | 0 | 1 | 16:00 | | | 126 | 114 | 240 |
| 04:15 | | | 6 | 2 | 8 | 16:15 | | | 146 | 82 | 228 |
| 04:30 | | | 0 | 2 | 2 | 16:30 | | | 133 | 108 | 241 |
| 04:45 | | | 5 | 12 | 17 | 16:45 | | | 146 | 551 | 697 |
| 05:00 | | | 7 | 0 | 7 | 17:00 | | | 158 | 128 | 286 |
| 05:15 | | | 2 | 1 | 3 | 17:15 | | | 128 | 97 | 225 |
| 05:30 | | | 6 | 4 | 10 | 17:30 | | | 163 | 133 | 296 |
| 05:45 | | | 10 | 25 | 35 | 17:45 | | | 151 | 600 | 751 |
| 06:00 | | | 15 | 14 | 29 | 18:00 | | | 115 | 82 | 197 |
| 06:15 | | | 27 | 18 | 45 | 18:15 | | | 116 | 76 | 192 |
| 06:30 | | | 17 | 41 | 58 | 18:30 | | | 119 | 65 | 184 |
| 06:45 | | | 36 | 95 | 131 | 18:45 | | | 118 | 468 | 586 |
| 07:00 | | | 40 | 77 | 117 | 19:00 | | | 95 | 64 | 159 |
| 07:15 | | | 56 | 99 | 155 | 19:15 | | | 67 | 41 | 108 |
| 07:30 | | | 67 | 80 | 147 | 19:30 | | | 62 | 59 | 121 |
| 07:45 | | | 84 | 247 | 331 | 19:45 | | | 57 | 281 | 338 |
| 08:00 | | | 92 | 125 | 217 | 20:00 | | | 47 | 33 | 80 |
| 08:15 | | | 97 | 150 | 247 | 20:15 | | | 59 | 43 | 102 |
| 08:30 | | | 108 | 160 | 268 | 20:30 | | | 36 | 42 | 78 |
| 08:45 | | | 108 | 405 | 513 | 20:45 | | | 43 | 185 | 228 |
| 09:00 | | | 86 | 74 | 160 | 21:00 | | | 45 | 37 | 82 |
| 09:15 | | | 68 | 72 | 140 | 21:15 | | | 35 | 28 | 63 |
| 09:30 | | | 61 | 57 | 118 | 21:30 | | | 24 | 27 | 51 |
| 09:45 | | | 75 | 290 | 365 | 21:45 | | | 25 | 129 | 154 |
| 10:00 | | | 76 | 52 | 128 | 22:00 | | | 26 | 20 | 46 |
| 10:15 | | | 67 | 68 | 135 | 22:15 | | | 31 | 22 | 53 |
| 10:30 | | | 72 | 44 | 116 | 22:30 | | | 15 | 14 | 29 |
| 10:45 | | | 57 | 272 | 329 | 22:45 | | | 13 | 85 | 98 |
| 11:00 | | | 86 | 44 | 130 | 23:00 | | | 5 | 10 | 15 |
| 11:15 | | | 87 | 51 | 138 | 23:15 | | | 8 | 7 | 15 |
| 11:30 | | | 69 | 69 | 138 | 23:30 | | | 7 | 3 | 10 |
| 11:45 | | | 84 | 326 | 410 | 23:45 | | | 5 | 25 | 30 |
| TOTALS | | | 1709 | 1763 | 3472 | TOTALS | | | 3863 | 2869 | 6732 |
| SPLIT % | | | 49.2% | 50.8% | 34.0% | SPLIT % | | | 57.4% | 42.6% | 66.0% |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|--------|-------|-------|
| | | | | | 0 | 0 | 5,572 | 4,632 | 10,204 | | |
| AM Peak Hour | | | 08:00 | 08:00 | 08:00 | PM Peak Hour | | | 17:00 | 16:45 | 16:45 |
| AM Pk Volume | | | 405 | 548 | 953 | PM Pk Volume | | | 600 | 464 | 1059 |
| Pk Hr Factor | | | 0.938 | 0.856 | 0.889 | Pk Hr Factor | | | 0.920 | 0.872 | 0.894 |
| 7 - 9 Volume | 0 | 0 | 652 | 891 | 1543 | 4 - 6 Volume | 0 | 0 | 1151 | 849 | 2000 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 17:00 | 16:45 | 16:45 |
| 7 - 9 Pk Volume | 0 | 0 | 405 | 548 | 953 | 4 - 6 Pk Volume | 0 | 0 | 600 | 464 | 1059 |
| Pk Hr Factor | 0.000 | 0.000 | 0.938 | 0.856 | 0.889 | Pk Hr Factor | 0.000 | 0.000 | 0.920 | 0.872 | 0.894 |

VOLUME

Segrell Way Bet. Sawtelle Blvd & Berryman Ave

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_006

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|----------------|--------------|--------------|----|----|--------------|----------------|--------------|--------------|-------|-----|--------------|
| | | | | | 649 | 1,060 | 0 | 0 | 1,709 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | 0 | 0 | | | 0 | 12:00 | 7 | 9 | | | 16 |
| 00:15 | 0 | 0 | | | 0 | 12:15 | 14 | 5 | | | 19 |
| 00:30 | 0 | 0 | | | 0 | 12:30 | 13 | 7 | | | 20 |
| 00:45 | 0 | 0 | | | 0 | 12:45 | 11 | 45 | 9 | 30 | 20 |
| 01:00 | 0 | 0 | | | 0 | 13:00 | 12 | 13 | | | 25 |
| 01:15 | 0 | 0 | | | 0 | 13:15 | 10 | 9 | | | 19 |
| 01:30 | 0 | 0 | | | 0 | 13:30 | 13 | 6 | | | 19 |
| 01:45 | 0 | 0 | | | 0 | 13:45 | 5 | 40 | 8 | 36 | 13 |
| 02:00 | 1 | 0 | | | 1 | 14:00 | 5 | 15 | | | 20 |
| 02:15 | 0 | 0 | | | 0 | 14:15 | 11 | 15 | | | 26 |
| 02:30 | 0 | 0 | | | 0 | 14:30 | 9 | 14 | | | 23 |
| 02:45 | 0 | 1 | 0 | | 0 | 14:45 | 15 | 40 | 16 | 60 | 31 |
| 03:00 | 0 | 1 | | | 1 | 15:00 | 14 | 20 | | | 34 |
| 03:15 | 0 | 0 | | | 0 | 15:15 | 10 | 36 | | | 46 |
| 03:30 | 0 | 0 | | | 0 | 15:30 | 10 | 39 | | | 49 |
| 03:45 | 0 | 0 | 1 | | 0 | 15:45 | 9 | 43 | 31 | 126 | 40 |
| 04:00 | 0 | 0 | | | 0 | 16:00 | 7 | 39 | | | 46 |
| 04:15 | 0 | 0 | | | 0 | 16:15 | 15 | 40 | | | 55 |
| 04:30 | 0 | 0 | | | 0 | 16:30 | 9 | 59 | | | 68 |
| 04:45 | 1 | 1 | 1 | 1 | 2 | 16:45 | 7 | 38 | 48 | 186 | 55 |
| 05:00 | 1 | 0 | | | 1 | 17:00 | 10 | 50 | | | 60 |
| 05:15 | 0 | 1 | | | 1 | 17:15 | 12 | 49 | | | 61 |
| 05:30 | 0 | 1 | | | 1 | 17:30 | 11 | 35 | | | 46 |
| 05:45 | 4 | 5 | 0 | 2 | 4 | 17:45 | 7 | 40 | 60 | 194 | 67 |
| 06:00 | 2 | 2 | | | 4 | 18:00 | 15 | 51 | | | 66 |
| 06:15 | 4 | 2 | | | 6 | 18:15 | 3 | 53 | | | 56 |
| 06:30 | 10 | 0 | | | 10 | 18:30 | 3 | 32 | | | 35 |
| 06:45 | 12 | 28 | 2 | 6 | 14 | 18:45 | 7 | 28 | 28 | 164 | 35 |
| 07:00 | 17 | 4 | | | 21 | 19:00 | 4 | 15 | | | 19 |
| 07:15 | 21 | 2 | | | 23 | 19:15 | 4 | 18 | | | 22 |
| 07:30 | 24 | 7 | | | 31 | 19:30 | 3 | 13 | | | 16 |
| 07:45 | 32 | 94 | 8 | 21 | 40 | 19:45 | 2 | 13 | 8 | 54 | 10 |
| 08:00 | 32 | 13 | | | 45 | 20:00 | 4 | 5 | | | 9 |
| 08:15 | 27 | 14 | | | 41 | 20:15 | 3 | 6 | | | 9 |
| 08:30 | 23 | 9 | | | 32 | 20:30 | 7 | 4 | | | 11 |
| 08:45 | 14 | 96 | 10 | 46 | 24 | 20:45 | 3 | 17 | 7 | 22 | 10 |
| 09:00 | 10 | 9 | | | 19 | 21:00 | 5 | 3 | | | 8 |
| 09:15 | 12 | 6 | | | 18 | 21:15 | 5 | 5 | | | 10 |
| 09:30 | 5 | 4 | | | 9 | 21:30 | 2 | 4 | | | 6 |
| 09:45 | 7 | 34 | 6 | 25 | 13 | 21:45 | 1 | 13 | 3 | 15 | 4 |
| 10:00 | 7 | 4 | | | 11 | 22:00 | 5 | 2 | | | 7 |
| 10:15 | 8 | 9 | | | 17 | 22:15 | 1 | 1 | | | 2 |
| 10:30 | 8 | 4 | | | 12 | 22:30 | 0 | 2 | | | 2 |
| 10:45 | 9 | 32 | 9 | 26 | 18 | 22:45 | 1 | 7 | 1 | 6 | 2 |
| 11:00 | 7 | 7 | | | 14 | 23:00 | 1 | 1 | | | 2 |
| 11:15 | 6 | 11 | | | 17 | 23:15 | 1 | 0 | | | 1 |
| 11:30 | 10 | 7 | | | 17 | 23:30 | 0 | 1 | | | 1 |
| 11:45 | 9 | 32 | 12 | 37 | 21 | 23:45 | 0 | 2 | 0 | 2 | 0 |
| TOTALS | 323 | 165 | | | 488 | TOTALS | 326 | 895 | | | 1221 |
| SPLIT % | 66.2% | 33.8% | | | 28.6% | SPLIT % | 26.7% | 73.3% | | | 71.4% |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total |
|-----------------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|
| | | | | | 649 | 1,060 | 0 | 0 | 1,709 |
| AM Peak Hour | 07:30 | 08:00 | | 07:45 | PM Peak Hour | 12:15 | 16:30 | | 16:30 |
| AM Pk Volume | 115 | 46 | | 158 | PM Pk Volume | 50 | 206 | | 244 |
| Pk Hr Factor | 0.898 | 0.821 | | 0.878 | Pk Hr Factor | 0.893 | 0.873 | | 0.897 |
| 7 - 9 Volume | 190 | 67 | 0 | 257 | 4 - 6 Volume | 78 | 380 | 0 | 458 |
| 7 - 9 Peak Hour | 07:30 | 08:00 | | 07:45 | 4 - 6 Peak Hour | 16:15 | 16:30 | | 16:30 |
| 7 - 9 Pk Volume | 115 | 46 | 0 | 158 | 4 - 6 Pk Volume | 41 | 206 | 0 | 244 |
| Pk Hr Factor | 0.898 | 0.821 | 0.000 | 0.878 | Pk Hr Factor | 0.683 | 0.873 | 0.000 | 0.897 |

VOLUME

Culver Park Dr Bet. Sawtelle Blvd & Berryman Ave

Day: Tuesday
Date: 5/21/2019City: Culver City
Project #: CA19_5295_007

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|----------------|--------------|--------------|----|----|--------------|----------------|--------------|--------------|-------|----|--------------|
| | | | | | 438 | 482 | 0 | 0 | 920 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | 0 | 0 | | | 0 | 12:00 | 6 | 2 | | | 8 |
| 00:15 | 0 | 0 | | | 0 | 12:15 | 2 | 5 | | | 7 |
| 00:30 | 0 | 0 | | | 0 | 12:30 | 5 | 5 | | | 10 |
| 00:45 | 0 | 0 | | | 0 | 12:45 | 2 | 15 | 9 | 21 | 11 |
| 01:00 | 0 | 0 | | | 0 | 13:00 | 3 | 3 | | | 6 |
| 01:15 | 0 | 0 | | | 0 | 13:15 | 4 | 4 | | | 8 |
| 01:30 | 0 | 0 | | | 0 | 13:30 | 7 | 4 | | | 11 |
| 01:45 | 0 | 0 | | | 0 | 13:45 | 3 | 17 | 4 | 15 | 7 |
| 02:00 | 0 | 0 | | | 0 | 14:00 | 3 | 3 | | | 6 |
| 02:15 | 0 | 0 | | | 0 | 14:15 | 7 | 1 | | | 8 |
| 02:30 | 0 | 0 | | | 0 | 14:30 | 7 | 11 | | | 18 |
| 02:45 | 0 | 0 | | | 0 | 14:45 | 5 | 22 | 16 | 31 | 21 |
| 03:00 | 1 | 0 | | | 1 | 15:00 | 6 | 20 | | | 26 |
| 03:15 | 0 | 0 | | | 0 | 15:15 | 17 | 17 | | | 34 |
| 03:30 | 0 | 0 | | | 0 | 15:30 | 12 | 17 | | | 29 |
| 03:45 | 0 | 1 | 1 | 1 | 1 | 15:45 | 3 | 38 | 9 | 63 | 12 |
| 04:00 | 0 | 0 | | | 0 | 16:00 | 6 | 14 | | | 20 |
| 04:15 | 0 | 0 | | | 0 | 16:15 | 8 | 13 | | | 21 |
| 04:30 | 0 | 0 | | | 0 | 16:30 | 13 | 21 | | | 34 |
| 04:45 | 0 | 0 | | | 0 | 16:45 | 9 | 36 | 18 | 66 | 27 |
| 05:00 | 2 | 1 | | | 3 | 17:00 | 8 | 19 | | | 27 |
| 05:15 | 0 | 0 | | | 0 | 17:15 | 10 | 22 | | | 32 |
| 05:30 | 0 | 0 | | | 0 | 17:30 | 13 | 18 | | | 31 |
| 05:45 | 1 | 3 | 0 | 1 | 1 | 17:45 | 3 | 34 | 9 | 68 | 12 |
| 06:00 | 1 | 0 | | | 1 | 18:00 | 12 | 16 | | | 28 |
| 06:15 | 1 | 1 | | | 2 | 18:15 | 4 | 10 | | | 14 |
| 06:30 | 2 | 0 | | | 2 | 18:30 | 1 | 4 | | | 5 |
| 06:45 | 9 | 13 | 3 | 4 | 12 | 18:45 | 2 | 19 | 6 | 36 | 8 |
| 07:00 | 10 | 1 | | | 11 | 19:00 | 2 | 4 | | | 6 |
| 07:15 | 18 | 1 | | | 19 | 19:15 | 3 | 8 | | | 11 |
| 07:30 | 21 | 4 | | | 25 | 19:30 | 5 | 5 | | | 10 |
| 07:45 | 21 | 70 | 7 | 13 | 28 | 19:45 | 5 | 15 | 3 | 20 | 8 |
| 08:00 | 16 | 13 | | | 29 | 20:00 | 0 | 1 | | | 1 |
| 08:15 | 13 | 19 | | | 32 | 20:15 | 2 | 3 | | | 5 |
| 08:30 | 19 | 40 | | | 59 | 20:30 | 2 | 1 | | | 3 |
| 08:45 | 21 | 69 | 9 | 81 | 30 | 20:45 | 2 | 6 | 4 | 9 | 6 |
| 09:00 | 11 | 2 | | | 13 | 21:00 | 2 | 0 | | | 2 |
| 09:15 | 5 | 1 | | | 6 | 21:15 | 3 | 2 | | | 5 |
| 09:30 | 6 | 4 | | | 10 | 21:30 | 1 | 4 | | | 5 |
| 09:45 | 3 | 25 | 3 | 10 | 6 | 21:45 | 1 | 7 | 2 | 8 | 3 |
| 10:00 | 2 | 3 | | | 5 | 22:00 | 1 | 3 | | | 4 |
| 10:15 | 5 | 2 | | | 7 | 22:15 | 1 | 2 | | | 3 |
| 10:30 | 6 | 3 | | | 9 | 22:30 | 2 | 0 | | | 2 |
| 10:45 | 9 | 22 | 2 | 10 | 11 | 22:45 | 1 | 5 | 1 | 6 | 2 |
| 11:00 | 6 | 4 | | | 10 | 23:00 | 0 | 0 | | | 0 |
| 11:15 | 2 | 3 | | | 5 | 23:15 | 0 | 0 | | | 0 |
| 11:30 | 3 | 2 | | | 5 | 23:30 | 0 | 0 | | | 0 |
| 11:45 | 8 | 19 | 8 | 17 | 16 | 23:45 | 2 | 2 | 2 | 2 | 4 |
| TOTALS | 222 | 137 | | | 359 | TOTALS | 216 | 345 | | | 561 |
| SPLIT % | 61.8% | 38.2% | | | 39.0% | SPLIT % | 38.5% | 61.5% | | | 61.0% |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|
| | | | | | 438 | 482 | 0 | 0 | 920 |
| AM Peak Hour | 07:15 | 08:00 | | | 08:00 | PM Peak Hour | 14:45 | 16:30 | 16:30 |
| AM Pk Volume | 76 | 81 | | | 150 | PM Pk Volume | 40 | 80 | 120 |
| Pk Hr Factor | 0.905 | 0.506 | | | 0.636 | Pk Hr Factor | 0.588 | 0.909 | 0.882 |
| 7 - 9 Volume | 139 | 94 | 0 | 0 | 233 | 4 - 6 Volume | 70 | 134 | 0 |
| 7 - 9 Peak Hour | 07:15 | 08:00 | | | 08:00 | 4 - 6 Peak Hour | 16:30 | 16:30 | 0 |
| 7 - 9 Pk Volume | 76 | 81 | 0 | 0 | 150 | 4 - 6 Pk Volume | 40 | 80 | 0 |
| Pk Hr Factor | 0.905 | 0.506 | 0.000 | 0.000 | 0.636 | Pk Hr Factor | 0.769 | 0.909 | 0.000 |

VOLUME

Orville St Bet. Sawtelle Blvd & Janisann Ave

Day: Tuesday
Date: 5/21/2019

City: Culver City
Project #: CA19_5295_008

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|----------------|--------------|--------------|----|----|--------------|----------------|--------------|--------------|-------|----|--------------|
| | | | | | 256 | 356 | 0 | 0 | 612 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | 0 | 1 | | | 1 | 12:00 | 3 | 3 | | | 6 |
| 00:15 | 0 | 0 | | | 0 | 12:15 | 2 | 7 | | | 9 |
| 00:30 | 1 | 1 | | | 2 | 12:30 | 3 | 4 | | | 7 |
| 00:45 | 1 | 2 | 0 | 2 | 1 | 12:45 | 5 | 13 | 4 | 18 | 31 |
| 01:00 | 0 | 0 | | | 0 | 13:00 | 5 | 2 | | | 7 |
| 01:15 | 0 | 0 | | | 0 | 13:15 | 1 | 3 | | | 4 |
| 01:30 | 0 | 1 | | | 1 | 13:30 | 1 | 6 | | | 7 |
| 01:45 | 0 | 0 | 1 | | 0 | 13:45 | 4 | 11 | 7 | 18 | 29 |
| 02:00 | 0 | 0 | | | 0 | 14:00 | 4 | 6 | | | 10 |
| 02:15 | 0 | 0 | | | 0 | 14:15 | 3 | 1 | | | 4 |
| 02:30 | 0 | 0 | | | 0 | 14:30 | 3 | 4 | | | 7 |
| 02:45 | 0 | 0 | | | 0 | 14:45 | 4 | 14 | 2 | 13 | 27 |
| 03:00 | 0 | 0 | | | 0 | 15:00 | 3 | 9 | | | 12 |
| 03:15 | 0 | 0 | | | 0 | 15:15 | 5 | 1 | | | 6 |
| 03:30 | 0 | 0 | | | 0 | 15:30 | 12 | 1 | | | 13 |
| 03:45 | 0 | 0 | | | 0 | 15:45 | 10 | 30 | 10 | 21 | 51 |
| 04:00 | 0 | 0 | | | 0 | 16:00 | 3 | 8 | | | 11 |
| 04:15 | 0 | 0 | | | 0 | 16:15 | 7 | 6 | | | 13 |
| 04:30 | 1 | 1 | | | 2 | 16:30 | 6 | 10 | | | 16 |
| 04:45 | 0 | 1 | 0 | 1 | 0 | 16:45 | 2 | 18 | 6 | 30 | 48 |
| 05:00 | 0 | 0 | | | 0 | 17:00 | 6 | 7 | | | 13 |
| 05:15 | 1 | 1 | | | 2 | 17:15 | 3 | 14 | | | 17 |
| 05:30 | 0 | 2 | | | 2 | 17:30 | 6 | 14 | | | 20 |
| 05:45 | 0 | 1 | 0 | 3 | 0 | 17:45 | 9 | 24 | 11 | 46 | 70 |
| 06:00 | 0 | 1 | | | 1 | 18:00 | 4 | 6 | | | 10 |
| 06:15 | 0 | 3 | | | 3 | 18:15 | 5 | 3 | | | 8 |
| 06:30 | 2 | 3 | | | 5 | 18:30 | 4 | 5 | | | 9 |
| 06:45 | 0 | 2 | 4 | 11 | 4 | 18:45 | 2 | 15 | 7 | 21 | 36 |
| 07:00 | 3 | 4 | | | 7 | 19:00 | 5 | 5 | | | 10 |
| 07:15 | 2 | 6 | | | 8 | 19:15 | 4 | 2 | | | 6 |
| 07:30 | 3 | 10 | | | 13 | 19:30 | 4 | 4 | | | 8 |
| 07:45 | 3 | 11 | 6 | 26 | 9 | 19:45 | 3 | 16 | 4 | 15 | 31 |
| 08:00 | 10 | 8 | | | 18 | 20:00 | 2 | 0 | | | 2 |
| 08:15 | 7 | 14 | | | 21 | 20:15 | 1 | 3 | | | 4 |
| 08:30 | 5 | 11 | | | 16 | 20:30 | 2 | 0 | | | 2 |
| 08:45 | 9 | 31 | 2 | 35 | 11 | 20:45 | 2 | 7 | 5 | 8 | 15 |
| 09:00 | 7 | 9 | | | 16 | 21:00 | 4 | 3 | | | 7 |
| 09:15 | 5 | 6 | | | 11 | 21:15 | 2 | 4 | | | 6 |
| 09:30 | 1 | 4 | | | 5 | 21:30 | 0 | 3 | | | 3 |
| 09:45 | 7 | 20 | 5 | 24 | 12 | 21:45 | 1 | 7 | 2 | 12 | 19 |
| 10:00 | 2 | 4 | | | 6 | 22:00 | 2 | 3 | | | 5 |
| 10:15 | 3 | 5 | | | 8 | 22:15 | 1 | 1 | | | 2 |
| 10:30 | 2 | 6 | | | 8 | 22:30 | 1 | 1 | | | 2 |
| 10:45 | 5 | 12 | 2 | 17 | 7 | 22:45 | 0 | 4 | 1 | 6 | 10 |
| 11:00 | 7 | 6 | | | 13 | 23:00 | 0 | 0 | | | 0 |
| 11:15 | 4 | 4 | | | 8 | 23:15 | 0 | 1 | | | 1 |
| 11:30 | 3 | 10 | | | 13 | 23:30 | 0 | 0 | | | 0 |
| 11:45 | 3 | 17 | 7 | 27 | 10 | 23:45 | 0 | 0 | 1 | | 1 |
| TOTALS | 97 | 147 | | | 244 | TOTALS | 159 | 209 | | | 368 |
| SPLIT % | 39.8% | 60.2% | | | 39.9% | SPLIT % | 43.2% | 56.8% | | | 60.1% |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|
| | | | | | 256 | 356 | 0 | 0 | 612 | |
| AM Peak Hour | 08:00 | 07:45 | | | 08:00 | PM Peak Hour | 15:30 | 17:00 | 17:00 | |
| AM Pk Volume | 31 | 39 | | | 66 | PM Pk Volume | 32 | 46 | 70 | |
| Pk Hr Factor | 0.775 | 0.696 | | | 0.786 | Pk Hr Factor | 0.667 | 0.821 | 0.875 | |
| 7 - 9 Volume | 42 | 61 | 0 | 0 | 103 | 4 - 6 Volume | 42 | 76 | 0 | 118 |
| 7 - 9 Peak Hour | 08:00 | 07:45 | | | 08:00 | 4 - 6 Peak Hour | 17:00 | 17:00 | 0 | 17:00 |
| 7 - 9 Pk Volume | 31 | 39 | 0 | 0 | 66 | 4 - 6 Pk Volume | 24 | 46 | 0 | 70 |
| Pk Hr Factor | 0.775 | 0.696 | 0.000 | 0.000 | 0.786 | Pk Hr Factor | 0.667 | 0.821 | 0.000 | 0.875 |

VOLUME

Rhoda Way Bet. Cota St & Kinston Ave

Day: Tuesday
Date: 7/9/2019

City: Culver City
Project #: CA19_5424_009

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total | | |
|----------------|--------------|--------------|----|----|--------------|----------------|--------------|--------------|-------|----|--------------|
| | | | | | 205 | 259 | 0 | 0 | 464 | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
| 00:00 | 0 | 1 | | | 1 | 12:00 | 7 | 4 | | | 11 |
| 00:15 | 0 | 0 | | | 0 | 12:15 | 8 | 5 | | | 13 |
| 00:30 | 0 | 0 | | | 0 | 12:30 | 2 | 3 | | | 5 |
| 00:45 | 0 | 0 | 1 | | 0 | 12:45 | 4 | 21 | 2 | 14 | 35 |
| 01:00 | 0 | 1 | | | 1 | 13:00 | 3 | 4 | | | 7 |
| 01:15 | 0 | 0 | | | 0 | 13:15 | 0 | 8 | | | 8 |
| 01:30 | 0 | 0 | | | 0 | 13:30 | 1 | 2 | | | 3 |
| 01:45 | 1 | 1 | 1 | 2 | 2 | 13:45 | 2 | 6 | 6 | 20 | 26 |
| 02:00 | 0 | 0 | | | 0 | 14:00 | 5 | 1 | | | 6 |
| 02:15 | 0 | 0 | | | 0 | 14:15 | 5 | 5 | | | 10 |
| 02:30 | 0 | 0 | | | 0 | 14:30 | 2 | 8 | | | 10 |
| 02:45 | 0 | 0 | | | 0 | 14:45 | 4 | 16 | 5 | 19 | 35 |
| 03:00 | 0 | 0 | | | 0 | 15:00 | 3 | 5 | | | 8 |
| 03:15 | 0 | 1 | | | 1 | 15:15 | 9 | 2 | | | 11 |
| 03:30 | 0 | 0 | | | 0 | 15:30 | 4 | 2 | | | 6 |
| 03:45 | 0 | 0 | 1 | | 0 | 15:45 | 4 | 20 | 4 | 13 | 33 |
| 04:00 | 0 | 1 | | | 1 | 16:00 | 1 | 3 | | | 4 |
| 04:15 | 0 | 0 | | | 0 | 16:15 | 1 | 7 | | | 8 |
| 04:30 | 0 | 0 | | | 0 | 16:30 | 5 | 5 | | | 10 |
| 04:45 | 1 | 1 | 0 | 1 | 1 | 16:45 | 6 | 13 | 10 | 25 | 38 |
| 05:00 | 0 | 0 | | | 0 | 17:00 | 3 | 12 | | | 15 |
| 05:15 | 0 | 0 | | | 0 | 17:15 | 2 | 5 | | | 7 |
| 05:30 | 0 | 0 | | | 0 | 17:30 | 4 | 5 | | | 9 |
| 05:45 | 0 | 0 | | | 0 | 17:45 | 5 | 14 | 13 | 35 | 49 |
| 06:00 | 0 | 0 | | | 0 | 18:00 | 1 | 6 | | | 7 |
| 06:15 | 0 | 1 | | | 1 | 18:15 | 3 | 3 | | | 6 |
| 06:30 | 2 | 0 | | | 2 | 18:30 | 5 | 5 | | | 10 |
| 06:45 | 2 | 4 | 1 | 2 | 3 | 18:45 | 4 | 13 | 4 | 18 | 31 |
| 07:00 | 3 | 1 | | | 4 | 19:00 | 1 | 10 | | | 11 |
| 07:15 | 5 | 1 | | | 6 | 19:15 | 1 | 3 | | | 4 |
| 07:30 | 3 | 4 | | | 7 | 19:30 | 2 | 2 | | | 4 |
| 07:45 | 3 | 14 | 1 | 7 | 4 | 19:45 | 1 | 5 | 2 | 17 | 22 |
| 08:00 | 2 | 1 | | | 3 | 20:00 | 0 | 3 | | | 3 |
| 08:15 | 5 | 0 | | | 5 | 20:15 | 1 | 1 | | | 2 |
| 08:30 | 5 | 6 | | | 11 | 20:30 | 4 | 5 | | | 9 |
| 08:45 | 7 | 19 | 9 | 16 | 16 | 20:45 | 1 | 6 | 7 | 16 | 22 |
| 09:00 | 4 | 10 | | | 14 | 21:00 | 1 | 1 | | | 2 |
| 09:15 | 5 | 4 | | | 9 | 21:15 | 3 | 0 | | | 3 |
| 09:30 | 2 | 2 | | | 4 | 21:30 | 1 | 1 | | | 2 |
| 09:45 | 2 | 13 | 1 | 17 | 3 | 21:45 | 4 | 9 | 3 | 5 | 14 |
| 10:00 | 6 | 2 | | | 8 | 22:00 | 0 | 1 | | | 1 |
| 10:15 | 1 | 5 | | | 6 | 22:15 | 1 | 0 | | | 1 |
| 10:30 | 2 | 3 | | | 5 | 22:30 | 0 | 0 | | | 0 |
| 10:45 | 6 | 15 | 3 | 13 | 9 | 22:45 | 1 | 2 | 0 | 1 | 3 |
| 11:00 | 1 | 4 | | | 5 | 23:00 | 1 | 0 | | | 1 |
| 11:15 | 0 | 3 | | | 3 | 23:15 | 0 | 0 | | | 0 |
| 11:30 | 2 | 3 | | | 5 | 23:30 | 1 | 0 | | | 1 |
| 11:45 | 6 | 9 | 5 | 15 | 11 | 23:45 | 2 | 4 | 1 | 1 | 5 |
| TOTALS | 76 | 75 | | | 151 | TOTALS | 129 | 184 | | | 313 |
| SPLIT % | 50.3% | 49.7% | | | 32.5% | SPLIT % | 41.2% | 58.8% | | | 67.5% |

| DAILY TOTALS | | | | | NB | SB | EB | WB | Total |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|
| | | | | | 205 | 259 | 0 | 0 | 464 |
| AM Peak Hour | 11:30 | 08:30 | | | 08:30 | PM Peak Hour | 12:00 | 17:00 | 16:15 |
| AM Pk Volume | 23 | 29 | | | 50 | PM Pk Volume | 21 | 35 | 49 |
| Pk Hr Factor | 0.719 | 0.725 | | | 0.781 | Pk Hr Factor | 0.656 | 0.673 | 0.766 |
| 7 - 9 Volume | 33 | 23 | 0 | 0 | 56 | 4 - 6 Volume | 27 | 60 | 87 |
| 7 - 9 Peak Hour | 08:00 | 08:00 | | | 08:00 | 4 - 6 Peak Hour | 16:30 | 17:00 | 16:15 |
| 7 - 9 Pk Volume | 19 | 16 | 0 | 0 | 35 | 4 - 6 Pk Volume | 16 | 35 | 49 |
| Pk Hr Factor | 0.679 | 0.444 | 0.000 | 0.000 | 0.547 | Pk Hr Factor | 0.667 | 0.673 | 0.000 |

VOLUME

Virginia Ave Bet. Pickford Way & Overland Ave

Day: Tuesday
Date: 7/9/2019

City: Culver City
Project #: CA19_5424_010

| DAILY TOTALS | | | | | | NB | SB | EB | WB | Total | | | | |
|----------------|----|----|----|-------|-------|--------------|----------------|-----|-----|-------|-------|--------------|----|-----|
| | | | | | | 0 | 0 | 819 | 784 | 1,603 | | | | |
| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL | | | |
| 00:00 | | | 0 | 2 | 2 | 12:00 | | | 15 | 13 | 28 | | | |
| 00:15 | | | 1 | 2 | 3 | 12:15 | | | 12 | 13 | 25 | | | |
| 00:30 | | | 1 | 0 | 1 | 12:30 | | | 15 | 8 | 23 | | | |
| 00:45 | | | 0 | 2 | 0 | 12:45 | | | 12 | 54 | 10 | 44 | 22 | 98 |
| 01:00 | | | 0 | 0 | 0 | 13:00 | | | 4 | 13 | 17 | | | |
| 01:15 | | | 0 | 0 | 0 | 13:15 | | | 11 | 13 | 24 | | | |
| 01:30 | | | 2 | 0 | 2 | 13:30 | | | 14 | 10 | 24 | | | |
| 01:45 | | | 0 | 2 | 1 | 13:45 | | | 16 | 45 | 15 | 51 | 31 | 96 |
| 02:00 | | | 1 | 1 | 2 | 14:00 | | | 11 | 7 | 18 | | | |
| 02:15 | | | 0 | 0 | 0 | 14:15 | | | 12 | 10 | 22 | | | |
| 02:30 | | | 0 | 1 | 1 | 14:30 | | | 14 | 17 | 31 | | | |
| 02:45 | | | 0 | 1 | 0 | 14:45 | | | 20 | 57 | 13 | 47 | 33 | 104 |
| 03:00 | | | 0 | 0 | 0 | 15:00 | | | 9 | 16 | 25 | | | |
| 03:15 | | | 0 | 1 | 1 | 15:15 | | | 13 | 19 | 32 | | | |
| 03:30 | | | 1 | 0 | 1 | 15:30 | | | 11 | 21 | 32 | | | |
| 03:45 | | | 0 | 1 | 0 | 15:45 | | | 12 | 45 | 13 | 69 | 25 | 114 |
| 04:00 | | | 0 | 0 | 0 | 16:00 | | | 17 | 13 | 30 | | | |
| 04:15 | | | 1 | 1 | 2 | 16:15 | | | 8 | 15 | 23 | | | |
| 04:30 | | | 0 | 0 | 0 | 16:30 | | | 15 | 15 | 30 | | | |
| 04:45 | | | 0 | 1 | 0 | 16:45 | | | 19 | 59 | 19 | 62 | 38 | 121 |
| 05:00 | | | 3 | 0 | 3 | 17:00 | | | 9 | 21 | 30 | | | |
| 05:15 | | | 3 | 0 | 3 | 17:15 | | | 16 | 24 | 40 | | | |
| 05:30 | | | 2 | 1 | 3 | 17:30 | | | 18 | 11 | 29 | | | |
| 05:45 | | | 6 | 14 | 6 | 17:45 | | | 17 | 60 | 24 | 80 | 41 | 140 |
| 06:00 | | | 3 | 2 | 5 | 18:00 | | | 19 | 33 | 52 | | | |
| 06:15 | | | 3 | 3 | 6 | 18:15 | | | 10 | 15 | 25 | | | |
| 06:30 | | | 3 | 1 | 4 | 18:30 | | | 7 | 17 | 24 | | | |
| 06:45 | | | 5 | 14 | 6 | 18:45 | | | 11 | 47 | 18 | 83 | 29 | 130 |
| 07:00 | | | 15 | 7 | 22 | 19:00 | | | 12 | 18 | 30 | | | |
| 07:15 | | | 10 | 4 | 14 | 19:15 | | | 11 | 17 | 28 | | | |
| 07:30 | | | 11 | 2 | 13 | 19:30 | | | 6 | 12 | 18 | | | |
| 07:45 | | | 15 | 51 | 11 | 19:45 | | | 10 | 39 | 7 | 54 | 17 | 93 |
| 08:00 | | | 21 | 5 | 26 | 20:00 | | | 5 | 14 | 19 | | | |
| 08:15 | | | 19 | 7 | 26 | 20:15 | | | 3 | 9 | 12 | | | |
| 08:30 | | | 20 | 8 | 28 | 20:30 | | | 8 | 6 | 14 | | | |
| 08:45 | | | 26 | 86 | 15 | 20:45 | | | 6 | 22 | 10 | 39 | 16 | 61 |
| 09:00 | | | 30 | 17 | 47 | 21:00 | | | 6 | 5 | 11 | | | |
| 09:15 | | | 17 | 11 | 28 | 21:15 | | | 2 | 3 | 5 | | | |
| 09:30 | | | 21 | 7 | 28 | 21:30 | | | 5 | 6 | 11 | | | |
| 09:45 | | | 19 | 87 | 10 | 21:45 | | | 6 | 19 | 5 | 19 | 11 | 38 |
| 10:00 | | | 20 | 14 | 34 | 22:00 | | | 2 | 6 | 8 | | | |
| 10:15 | | | 12 | 8 | 20 | 22:15 | | | 2 | 2 | 4 | | | |
| 10:30 | | | 8 | 7 | 15 | 22:30 | | | 2 | 2 | 4 | | | |
| 10:45 | | | 14 | 54 | 3 | 22:45 | | | 1 | 7 | 8 | 18 | 9 | 25 |
| 11:00 | | | 13 | 12 | 25 | 23:00 | | | 2 | 1 | 3 | | | |
| 11:15 | | | 11 | 8 | 19 | 23:15 | | | 1 | 4 | 5 | | | |
| 11:30 | | | 13 | 12 | 25 | 23:30 | | | 0 | 1 | 1 | | | |
| 11:45 | | | 12 | 49 | 13 | 23:45 | | | 0 | 3 | 3 | 9 | 3 | 12 |
| TOTALS | | | | 362 | 209 | 571 | TOTALS | | | 457 | 575 | 1032 | | |
| SPLIT % | | | | 63.4% | 36.6% | 35.6% | SPLIT % | | | 44.3% | 55.7% | 64.4% | | |

| DAILY TOTALS | | | | | | NB | SB | EB | WB | Total | |
|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | | | | | | 0 | 0 | 819 | 784 | 1,603 | |
| AM Peak Hour | | | 08:15 | 08:30 | 08:30 | PM Peak Hour | | | 17:15 | 17:15 | 17:15 |
| AM Pk Volume | | | 95 | 51 | 144 | PM Pk Volume | | | 70 | 92 | 162 |
| Pk Hr Factor | | | 0.792 | 0.750 | 0.766 | Pk Hr Factor | | | 0.921 | 0.697 | 0.779 |
| 7 - 9 Volume | 0 | 0 | 137 | 59 | 196 | 4 - 6 Volume | 0 | 0 | 119 | 142 | 261 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 16:45 | 17:00 | 17:00 |
| 7 - 9 Pk Volume | 0 | 0 | 86 | 35 | 121 | 4 - 6 Pk Volume | 0 | 0 | 62 | 80 | 140 |
| Pk Hr Factor | 0.000 | 0.000 | 0.827 | 0.583 | 0.738 | Pk Hr Factor | 0.000 | 0.000 | 0.816 | 0.833 | 0.854 |

Appendix D: Operations Analysis Sheets

Existing (2019) AM

Queues

1: Culver Blvd & Sepulveda Blvd

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 254 | 1153 | 57 | 138 | 1158 | 233 | 1144 | 248 | 78 | 460 | 179 |
| v/c Ratio | 0.75 | 0.93 | 0.09 | 0.44 | 0.67 | 0.68 | 1.02 | 0.42 | 0.35 | 0.46 | 0.32 |
| Control Delay | 67.5 | 52.5 | 0.3 | 56.3 | 36.5 | 62.3 | 73.9 | 12.4 | 45.4 | 36.9 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.5 | 52.5 | 0.3 | 56.3 | 36.5 | 62.3 | 73.9 | 12.4 | 45.4 | 36.9 | 6.1 |
| Queue Length 50th (ft) | 100 | ~475 | 0 | 53 | 288 | 90 | ~496 | 41 | 43 | 150 | 0 |
| Queue Length 95th (ft) | #157 | #628 | 0 | 86 | 343 | 134 | #632 | 112 | 83 | 201 | 53 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 337 | 1238 | 659 | 314 | 1730 | 371 | 1117 | 597 | 222 | 1073 | 588 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 0.93 | 0.09 | 0.44 | 0.67 | 0.63 | 1.02 | 0.42 | 0.35 | 0.43 | 0.30 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

































95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/12/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |   |  |   |    | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 241 | 1095 | 54 | 131 | 1023 | 77 | 221 | 1087 | 236 | 74 | 437 | 170 |
| Future Volume (veh/h) | 241 | 1095 | 54 | 131 | 1023 | 77 | 221 | 1087 | 236 | 74 | 437 | 170 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.95 |
| 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 | 254 | 1153 | 57 | 138 | 1077 | 81 | 233 | 1144 | 248 | 78 | 460 | 179 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 317 | 1149 | 496 | 1808 | 3707 | 278 | 317 | 1122 | 481 | 211 | 1131 | 481 |
| Arrive On Green | 0.09 | 0.32 | 0.32 | 0.52 | 0.77 | 0.77 | 0.09 | 0.32 | 0.32 | 0.08 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1534 | 3456 | 4836 | 363 | 3456 | 3554 | 1522 | 1781 | 3554 | 1513 |
| Grp Volume(v), veh/h | 254 | 1153 | 57 | 138 | 758 | 400 | 233 | 1144 | 248 | 78 | 460 | 179 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1534 | 1728 | 1702 | 1796 | 1728 | 1777 | 1522 | 1781 | 1777 | 1513 |
| Q Serve(g_s), s | 8.6 | 38.8 | 4.4 | 2.4 | 8.0 | 8.0 | 7.9 | 37.9 | 16.0 | 0.8 | 12.2 | 11.0 |
| Cycle Q Clear(g_c), s | 8.6 | 38.8 | 4.4 | 2.4 | 8.0 | 8.0 | 7.9 | 37.9 | 16.0 | 0.8 | 12.2 | 11.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 317 | 1149 | 496 | 1808 | 2609 | 1376 | 317 | 1122 | 481 | 211 | 1131 | 481 |
| V/C Ratio(X) | 0.80 | 1.00 | 0.11 | 0.08 | 0.29 | 0.29 | 0.74 | 1.02 | 0.52 | 0.37 | 0.41 | 0.37 |
| Avail Cap(c_a), veh/h | 340 | 1149 | 496 | 1808 | 2609 | 1376 | 374 | 1122 | 481 | 223 | 1131 | 481 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.4 | 40.6 | 55.1 | 14.2 | 4.2 | 4.2 | 53.1 | 41.0 | 33.6 | 50.3 | 32.0 | 31.6 |
| Incr Delay (d2), s/veh | 14.4 | 27.4 | 0.5 | 0.0 | 0.3 | 0.5 | 4.7 | 31.8 | 1.9 | 0.4 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.4 | 21.1 | 1.2 | 0.9 | 2.5 | 2.7 | 3.6 | 21.3 | 6.2 | 2.2 | 5.3 | 4.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 67.9 | 68.0 | 55.6 | 14.2 | 4.5 | 4.7 | 57.7 | 72.9 | 35.5 | 50.7 | 32.5 | 32.7 |
| LnGrp LOS | E | F | E | B | A | A | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1464 | | | 1296 | | | 1625 | | | 717 | |
| Approach Delay, s/veh | | 67.5 | | | 5.6 | | | 65.0 | | | 34.5 | |
| Approach LOS | | E | | | A | | | E | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 99.4 | 16.3 | 44.0 | 70.2 | 44.6 | 16.0 | 44.3 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.8 | * 38 | * 11 | * 38 | * 11 | * 39 | 13.0 | * 36 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.6 | 10.0 | 2.8 | 39.9 | 4.4 | 40.8 | 9.9 | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.2 | 15.9 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 6.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 46.3 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 156 | 533 | 343 | 54 | 863 | 416 | 381 | 763 | 282 | 834 | 373 |
| v/c Ratio | 0.78 | 0.49 | 0.43 | 0.33 | 0.94 | 0.60 | 0.90 | 0.70 | 0.57 | 0.71 | 0.54 |
| Control Delay | 77.2 | 36.6 | 9.1 | 56.9 | 61.8 | 16.2 | 91.5 | 40.9 | 53.2 | 39.6 | 12.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 77.2 | 36.6 | 9.1 | 56.9 | 61.8 | 16.2 | 91.5 | 40.9 | 53.2 | 39.6 | 12.1 |
| Queue Length 50th (ft) | 118 | 180 | 55 | 40 | 345 | 109 | 156 | 211 | 104 | 302 | 55 |
| Queue Length 95th (ft) | #212 | 238 | 125 | 82 | #470 | 187 | m#234 | m238 | 154 | 378 | 151 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 221 | 1082 | 808 | 221 | 920 | 695 | 431 | 1107 | 496 | 1172 | 692 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 0.49 | 0.42 | 0.24 | 0.94 | 0.60 | 0.88 | 0.69 | 0.57 | 0.71 | 0.54 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | | ↘↗ | ↑↑ | ↗ |
| Traffic Volume (veh/h) | 148 | 506 | 326 | 51 | 820 | 395 | 362 | 684 | 41 | 268 | 792 | 354 |
| Future Volume (veh/h) | 148 | 506 | 326 | 51 | 820 | 395 | 362 | 684 | 41 | 268 | 792 | 354 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 156 | 533 | 343 | 54 | 863 | 416 | 381 | 720 | 0 | 282 | 834 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 183 | 1014 | 643 | 136 | 921 | 711 | 432 | 927 | | 685 | 1213 | |
| Arrive On Green | 0.10 | 0.29 | 0.29 | 0.08 | 0.26 | 0.26 | 0.13 | 0.26 | 0.00 | 0.20 | 0.34 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1558 | 1781 | 3554 | 1531 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 156 | 533 | 343 | 54 | 863 | 416 | 381 | 720 | 0 | 282 | 834 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1558 | 1781 | 1777 | 1531 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 10.3 | 15.1 | 20.0 | 3.5 | 28.5 | 6.1 | 13.0 | 22.5 | 0.0 | 8.6 | 24.2 | 0.0 |
| Cycle Q Clear(g_c), s | 10.3 | 15.1 | 20.0 | 3.5 | 28.5 | 6.1 | 13.0 | 22.5 | 0.0 | 8.6 | 24.2 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 183 | 1014 | 643 | 136 | 921 | 711 | 432 | 927 | | 685 | 1213 | |
| V/C Ratio(X) | 0.85 | 0.53 | 0.53 | 0.40 | 0.94 | 0.59 | 0.88 | 0.78 | | 0.41 | 0.69 | |
| Avail Cap(c_a), veh/h | 223 | 1014 | 643 | 223 | 924 | 712 | 435 | 1102 | | 685 | 1213 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.9 | 36.0 | 26.7 | 52.8 | 43.5 | 9.3 | 51.6 | 41.1 | 0.0 | 42.0 | 34.0 | 0.0 |
| Incr Delay (d2), s/veh | 19.8 | 1.0 | 1.6 | 0.7 | 16.9 | 2.0 | 17.8 | 6.4 | 0.0 | 0.1 | 3.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 6.7 | 7.7 | 1.6 | 14.6 | 4.6 | 6.7 | 10.6 | 0.0 | 3.7 | 10.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 72.7 | 37.0 | 28.3 | 53.5 | 60.4 | 11.3 | 69.4 | 47.5 | 0.0 | 42.2 | 37.2 | 0.0 |
| LnGrp LOS | E | D | C | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1032 | | | 1333 | | | 1101 | A | | 1116 | A |
| Approach Delay, s/veh | | 39.5 | | | 44.8 | | | 55.1 | | | 38.5 | |
| Approach LOS | | D | | | D | | | E | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 29.7 | 37.1 | 13.2 | 40.0 | 19.9 | 46.9 | 16.3 | 36.9 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 15.7 | * 37 | 15.0 | 31.2 | 15.1 | * 38 | 15.0 | 31.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.6 | 24.5 | 5.5 | 22.0 | 15.0 | 26.2 | 12.3 | 30.5 | | | | |
| Green Ext Time (p_c), s | 0.3 | 6.3 | 0.0 | 5.3 | 0.0 | 6.8 | 0.1 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 44.5 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
AM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,507 | 1,359 | 90.2% | 22.8 | 4.2 | C |
| | Right Turn | 62 | 55 | 89.0% | 15.4 | 5.1 | B |
| | Subtotal | 1,569 | 1,415 | 90.2% | 22.5 | 4.1 | C |
| SB | Left Turn | 99 | 99 | 99.6% | 55.2 | 8.0 | E |
| | Through | 395 | 401 | 101.5% | 6.4 | 1.7 | A |
| | Right Turn | 5 | 6 | 110.0% | 3.4 | 1.1 | A |
| | Subtotal | 499 | 505 | 101.2% | 16.1 | 3.1 | B |
| EB | Left Turn | 8 | 6 | 78.8% | 37.1 | 32.7 | D |
| | Through | 6 | 6 | 103.3% | 48.6 | 41.7 | D |
| | Right Turn | 6 | 6 | 100.0% | 5.4 | 4.8 | A |
| | Subtotal | 20 | 19 | 92.5% | 34.0 | 12.3 | C |
| WB | Left Turn | 23 | 20 | 87.8% | 40.2 | 17.4 | D |
| | Through | 1 | 2 | 180.0% | 15.4 | 33.5 | B |
| | Right Turn | 278 | 269 | 96.9% | 15.9 | 3.1 | B |
| | Subtotal | 302 | 291 | 96.5% | 18.3 | 3.2 | B |
| Total | | 2,390 | 2,230 | 93.3% | 20.7 | 2.8 | C |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 22 | 20 | 90.0% | 27.9 | 11.8 | C |
| | Through | 1,315 | 1,174 | 89.3% | 9.3 | 2.1 | A |
| | Right Turn | 25 | 22 | 88.8% | 8.5 | 3.6 | A |
| | Subtotal | 1,362 | 1,216 | 89.3% | 9.5 | 2.1 | A |
| SB | Left Turn | 58 | 57 | 97.4% | 34.4 | 10.5 | C |
| | Through | 1,008 | 953 | 94.6% | 48.6 | 31.9 | D |
| | Right Turn | 259 | 250 | 96.6% | 20.4 | 17.3 | C |
| | Subtotal | 1,325 | 1,260 | 95.1% | 43.0 | 28.2 | D |
| EB | Left Turn | 132 | 126 | 95.6% | 31.9 | 6.6 | C |
| | Through | 21 | 22 | 104.8% | 23.8 | 10.3 | C |
| | Right Turn | 14 | 12 | 85.7% | 20.1 | 13.9 | C |
| | Subtotal | 167 | 160 | 95.9% | 29.9 | 6.3 | C |
| WB | Left Turn | 12 | 12 | 97.5% | 54.3 | 50.4 | D |
| | Through | 21 | 21 | 99.5% | 41.3 | 17.1 | D |
| | Right Turn | 26 | 28 | 109.2% | 17.2 | 6.1 | B |
| | Subtotal | 59 | 61 | 103.4% | 32.7 | 12.1 | C |
| Total | | 2,913 | 2,698 | 92.6% | 26.4 | 13.0 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 12 | 10 | 83.3% | 3.4 | 2.3 | A |
| | Through | 1,527 | 1,366 | 89.5% | 0.6 | 0.3 | A |
| | Right Turn | 11 | 10 | 93.6% | 0.1 | 0.1 | A |
| | Subtotal | 1,550 | 1,387 | 89.5% | 0.7 | 0.3 | A |
| SB | Left Turn | 5 | 4 | 70.0% | 11.6 | 17.8 | B |
| | Through | 403 | 406 | 100.7% | 1.2 | 0.3 | A |
| | Right Turn | 16 | 18 | 111.9% | 0.8 | 0.8 | A |
| | Subtotal | 424 | 427 | 100.8% | 1.3 | 0.3 | A |
| EB | Left Turn | 38 | 39 | 102.9% | 20.6 | 7.6 | C |
| | Through | 1 | 1 | 110.0% | 6.3 | 13.5 | A |
| | Right Turn | 6 | 8 | 125.0% | 2.5 | 1.4 | A |
| | Subtotal | 45 | 48 | 106.0% | 18.4 | 8.9 | C |
| WB | Left Turn | 4 | 4 | 92.5% | 24.0 | 26.4 | C |
| | Through | 1 | 1 | 70.0% | 0.0 | 0.0 | A |
| | Right Turn | 4 | 5 | 130.0% | 5.9 | 5.3 | A |
| | Subtotal | 9 | 10 | 106.7% | 22.8 | 21.2 | C |
| Total | | 2,028 | 1,871 | 92.3% | 1.5 | 0.4 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,382 | 1,221 | 88.3% | 4.9 | 0.3 | A |
| | Right Turn | 1,362 | 1,214 | 89.1% | 4.2 | 0.7 | A |
| | Subtotal | 2,744 | 2,435 | 88.7% | 4.6 | 0.4 | A |
| SB | Left Turn | | | | | | |
| | Through | 454 | 459 | 101.2% | 27.2 | 5.1 | C |
| | Right Turn | 3 | 3 | 110.0% | 11.9 | 17.7 | B |
| | Subtotal | 457 | 463 | 101.2% | 27.1 | 5.1 | C |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,021 | 956 | 93.6% | 80.1 | 38.8 | F |
| | Through | 3 | 4 | 120.0% | 52.1 | 57.7 | D |
| | Right Turn | 10 | 10 | 99.0% | 59.0 | 33.0 | E |
| | Subtotal | 1,034 | 970 | 93.8% | 79.8 | 38.4 | E |
| Total | | 4,235 | 3,867 | 91.3% | 26.9 | 8.8 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
AM Peak Hour

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 162 | 142 | 87.5% | 159.6 | 36.9 | F |
| | Through | 2,381 | 2,085 | 87.6% | 90.0 | 21.5 | F |
| | Right Turn | 40 | 37 | 92.5% | 85.3 | 23.2 | F |
| | Subtotal | 2,583 | 2,263 | 87.6% | 94.2 | 19.5 | F |
| SB | Left Turn | 75 | 72 | 95.7% | 43.4 | 19.9 | D |
| | Through | 1,185 | 1,143 | 96.4% | 14.1 | 1.8 | B |
| | Right Turn | 215 | 201 | 93.3% | 8.5 | 1.9 | A |
| | Subtotal | 1,475 | 1,415 | 95.9% | 14.9 | 2.0 | B |
| EB | Left Turn | 173 | 165 | 95.1% | 181.4 | 124.1 | F |
| | Through | 176 | 171 | 96.9% | 152.4 | 115.3 | F |
| | Right Turn | 68 | 65 | 95.3% | 126.0 | 115.2 | F |
| | Subtotal | 417 | 400 | 95.9% | 159.6 | 117.9 | F |
| WB | Left Turn | 83 | 80 | 96.3% | 73.1 | 38.0 | E |
| | Through | 174 | 176 | 101.0% | 50.7 | 19.8 | D |
| | Right Turn | 190 | 186 | 98.0% | 16.8 | 7.5 | B |
| | Subtotal | 447 | 442 | 98.8% | 41.2 | 17.9 | D |
| Total | | 4,922 | 4,520 | 91.8% | 68.4 | 5.9 | E |

Intersection 3

Sepulveda Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 2 | 25 | 5 | 50 | 13 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 400 | 225 | 13 | 325 | 35 | 375 | 75 | 19% | 0% |
| | Through/Right | 400 | 225 | 15 | 350 | 25 | 400 | 62 | 0% | 0% |
| SB | Left Turn | 225 | 75 | 8 | 125 | 16 | 150 | 35 | 0% | 0% |
| | Through | 375 | 50 | 7 | 100 | 17 | 125 | 30 | 11% | 0% |
| | Right Turn | 50 | 25 | 1 | 25 | 5 | 50 | 9 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 3 | 50 | 9 | 50 | 16 | 0% | 0% |
| | Right Turn | 600 | 50 | 7 | 75 | 16 | 100 | 21 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 100 | 8 | 175 | 16 | 225 | 34 | 1% | 0% |
| | Through | 600 | 25 | 5 | 50 | 16 | 75 | 44 | 0% | 0% |
| | Right Turn | 600 | 25 | 2 | 25 | 7 | 50 | 14 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 2 | 50 | 5 | 75 | 12 | 0% | 0% |
| | Through | 475 | 100 | 25 | 275 | 69 | 450 | 60 | 2% | 0% |
| | Through/Right | 475 | 100 | 25 | 275 | 61 | 425 | 49 | 0% | 0% |
| SB | Left Turn | 200 | 50 | 18 | 125 | 56 | 200 | 84 | 0% | 0% |
| | Through | 750 | 300 | 134 | 600 | 267 | 625 | 278 | 16% | 4% |
| | Right Turn | 375 | 125 | 72 | 325 | 204 | 325 | 174 | 0% | 0% |
| WB | Left Turn | 150 | 25 | 3 | 50 | 5 | 75 | 13 | 0% | 0% |
| | Through/Right | 150 | 50 | 5 | 100 | 11 | 125 | 17 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 3 | 75 | 4 | 75 | 11 | 4% | 0% |
| | Right Turn | 75 | 25 | 2 | 50 | 6 | 50 | 17 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 1 | 25 | 4 | 50 | 1 | 0% | 0% |
| | Through | 125 | 25 | 1 | 25 | 8 | 25 | 23 | 0% | 0% |
| | Through/Right | 125 | 25 | 1 | 25 | 8 | 25 | 22 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 1 | 25 | 8 | 50 | 12 | 0% | 0% |
| | Through | 125 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Right Turn | 125 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| WB | Shared | 125 | 25 | 2 | 50 | 6 | 50 | 16 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 4 | 100 | 13 | 125 | 40 | 0% | 0% |
| | Right Turn | 225 | 25 | 3 | 25 | 19 | 75 | 50 | 0% | 0% |
| SB | Through | 175 | 125 | 10 | 175 | 15 | 200 | 23 | 0% | 0% |
| | Through/Right | 175 | 100 | 5 | 175 | 12 | 175 | 18 | 0% | 0% |
| WB | Left Turn | 475 | 375 | 71 | 525 | 79 | 500 | 31 | 27% | 11% |
| | Shared | 300 | 300 | 43 | 425 | 34 | 375 | 0 | 15% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 150 | 8 | 175 | 8 | 150 | 0 | 20% | 20% |
| | Through | 150 | 225 | 13 | 275 | 16 | 250 | 13 | 56% | 54% |
| | Right Turn | 50 | 50 | 5 | 100 | 6 | 75 | 0 | 3% | 0% |
| NB | Left Turn | 275 | 200 | 19 | 300 | 11 | 250 | 0 | 7% | 7% |
| | Through | 275 | 325 | 11 | 375 | 22 | 375 | 16 | 44% | 44% |
| | Through/Right | 250 | 250 | 6 | 275 | 15 | 275 | 0 | 21% | 8% |
| SB | Left Turn | 175 | 50 | 5 | 100 | 16 | 150 | 32 | 0% | 0% |
| | Through | 225 | 200 | 16 | 300 | 31 | 300 | 22 | 2% | 4% |
| | Through/Right | 225 | 125 | 28 | 250 | 43 | 275 | 34 | 0% | 1% |
| WB | Left Turn | 100 | 100 | 13 | 150 | 17 | 150 | 1 | 12% | 0% |
| | Through | 325 | 150 | 24 | 250 | 59 | 325 | 73 | 24% | 2% |
| | Through/Right | 325 | 100 | 8 | 150 | 26 | 200 | 66 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl

11/12/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|------|------|------|------|
| Lane Group Flow (vph) | 539 | 251 | 115 | 829 | 36 | 1737 | 64 | 791 | 547 |
| v/c Ratio | 0.82 | 0.53 | 0.13 | 1.26dr | 0.32 | 0.86 | 0.47 | 0.38 | 0.47 |
| Control Delay | 71.4 | 65.6 | 45.6 | 51.5 | 80.9 | 49.2 | 83.0 | 34.1 | 5.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 71.4 | 65.6 | 45.6 | 51.5 | 80.9 | 71.4 | 83.0 | 34.1 | 5.6 |
| Queue Length 50th (ft) | 271 | 131 | 44 | 246 | 36 | 610 | 64 | 211 | 60 |
| Queue Length 95th (ft) | #384 | 169 | 86 | 306 | 81 | #827 | 126 | 289 | 171 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 731 | 1398 | 912 | 1416 | 177 | 2013 | 177 | 2080 | 1181 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 341 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.18 | 0.13 | 0.59 | 0.20 | 1.04 | 0.36 | 0.38 | 0.46 |

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↑↔ | | ↔↔ | ↑↑↔ | | ↔ | ↑↑↔ | | ↔ | ↑↑↑ | ↔ |
| Traffic Volume (veh/h) | 512 | 228 | 10 | 109 | 242 | 545 | 34 | 1569 | 81 | 61 | 751 | 520 |
| Future Volume (veh/h) | 512 | 228 | 10 | 109 | 242 | 545 | 34 | 1569 | 81 | 61 | 751 | 520 |
| 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 | 539 | 240 | 0 | 115 | 255 | 0 | 36 | 1652 | 85 | 64 | 791 | 547 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 628 | 448 | | 591 | 644 | | 94 | 2083 | 107 | 132 | 2303 | 1003 |
| Arrive On Green | 0.18 | 0.13 | 0.00 | 0.17 | 0.13 | 0.00 | 0.05 | 0.42 | 0.42 | 0.07 | 0.45 | 0.45 |
| Sat Flow, veh/h | 3456 | 3647 | 0 | 3456 | 5274 | 0 | 1781 | 4973 | 256 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 539 | 240 | 0 | 115 | 255 | 0 | 36 | 1131 | 606 | 64 | 791 | 547 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1824 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 18.0 | 7.5 | 0.0 | 3.4 | 5.5 | 0.0 | 2.3 | 34.4 | 34.4 | 4.1 | 12.0 | 23.0 |
| Cycle Q Clear(g_c), s | 18.0 | 7.5 | 0.0 | 3.4 | 5.5 | 0.0 | 2.3 | 34.4 | 34.4 | 4.1 | 12.0 | 23.0 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 628 | 448 | | 591 | 644 | | 94 | 1426 | 764 | 132 | 2303 | 1003 |
| V/C Ratio(X) | 0.86 | 0.54 | | 0.19 | 0.40 | | 0.38 | 0.79 | 0.79 | 0.49 | 0.34 | 0.55 |
| Avail Cap(c_a), veh/h | 930 | 1784 | | 591 | 1846 | | 226 | 1712 | 917 | 226 | 2567 | 1085 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.2 | 48.7 | 0.0 | 42.3 | 47.8 | 0.0 | 54.5 | 30.1 | 30.1 | 52.9 | 21.2 | 12.2 |
| Incr Delay (d2), s/veh | 5.4 | 1.0 | 0.0 | 0.2 | 0.4 | 0.0 | 2.6 | 2.2 | 4.1 | 2.8 | 0.1 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.2 | 3.4 | 0.0 | 1.5 | 2.3 | 0.0 | 1.1 | 14.1 | 15.5 | 1.9 | 4.7 | 7.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.6 | 49.7 | 0.0 | 42.4 | 48.2 | 0.0 | 57.0 | 32.3 | 34.2 | 55.7 | 21.3 | 12.7 |
| LnGrp LOS | D | D | | D | D | | E | C | C | E | C | B |
| Approach Vol, veh/h | | 779 | A | | 370 | A | | 1773 | | | 1402 | |
| Approach Delay, s/veh | | 51.7 | | | 46.4 | | | 33.4 | | | 19.5 | |
| Approach LOS | | D | | | D | | | C | | | B | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 59.8 | 26.6 | 21.3 | 15.0 | 56.0 | 26.6 | 21.3 | | | | |
| Change Period (Y+Rc), s | 4.9 | 6.2 | 6.3 | * 6.3 | 6.2 | * 6.2 | 5.0 | 6.3 | | | | |
| Max Green Setting (Gmax), s | 15.1 | 59.8 | 15.0 | * 60 | 15.1 | * 60 | 32.0 | 43.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 25.0 | 5.4 | 9.5 | 6.1 | 36.4 | 20.0 | 7.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.1 | 0.2 | 1.7 | 0.1 | 13.4 | 1.6 | 1.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 33.3 |
| HCM 6th LOS | C |

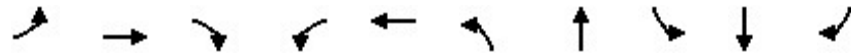
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Queues

9: Slauson Ave & Jefferson BI

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 143 | 787 | 163 | 11 | 790 | 265 | 244 | 23 | 94 | 103 |
| v/c Ratio | 0.54 | 0.36 | 0.15 | 0.06 | 0.60 | 0.51 | 0.39 | 0.09 | 0.24 | 0.25 |
| Control Delay | 47.9 | 20.1 | 4.9 | 46.1 | 32.7 | 42.7 | 28.9 | 41.8 | 33.2 | 7.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.9 | 20.1 | 4.9 | 46.1 | 32.7 | 42.7 | 28.9 | 41.8 | 33.2 | 7.9 |
| Queue Length 50th (ft) | 74 | 93 | 11 | 6 | 137 | 71 | 97 | 11 | 47 | 0 |
| Queue Length 95th (ft) | 173 | 213 | 65 | 27 | 229 | 143 | 222 | 42 | 96 | 41 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 290 | 3326 | 1079 | 290 | 3289 | 560 | 1193 | 296 | 1233 | 1082 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.24 | 0.15 | 0.04 | 0.24 | 0.47 | 0.20 | 0.08 | 0.08 | 0.10 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↗ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 136 | 748 | 155 | 10 | 691 | 60 | 252 | 208 | 24 | 22 | 89 | 98 |
| Future Volume (veh/h) | 136 | 748 | 155 | 10 | 691 | 60 | 252 | 208 | 24 | 22 | 89 | 98 |
| 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 | 143 | 787 | 163 | 11 | 727 | 63 | 265 | 219 | 0 | 23 | 94 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 1922 | 843 | 43 | 1440 | 124 | 537 | 515 | | 115 | 336 | |
| Arrive On Green | 0.10 | 0.38 | 0.38 | 0.02 | 0.30 | 0.30 | 0.16 | 0.28 | 0.00 | 0.06 | 0.18 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4788 | 412 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 143 | 787 | 163 | 11 | 516 | 274 | 265 | 219 | 0 | 23 | 94 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1796 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 6.6 | 9.5 | 4.5 | 0.5 | 10.4 | 10.5 | 5.9 | 8.0 | 0.0 | 1.0 | 3.6 | 0.0 |
| Cycle Q Clear(g_c), s | 6.6 | 9.5 | 4.5 | 0.5 | 10.4 | 10.5 | 5.9 | 8.0 | 0.0 | 1.0 | 3.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.23 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 178 | 1922 | 843 | 43 | 1024 | 540 | 537 | 515 | | 115 | 336 | |
| V/C Ratio(X) | 0.80 | 0.41 | 0.19 | 0.25 | 0.50 | 0.51 | 0.49 | 0.43 | | 0.20 | 0.28 | |
| Avail Cap(c_a), veh/h | 320 | 3649 | 1379 | 320 | 2433 | 1284 | 616 | 1328 | | 326 | 1352 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 36.8 | 19.2 | 10.2 | 40.0 | 24.1 | 24.1 | 32.3 | 24.8 | 0.0 | 37.0 | 29.6 | 0.0 |
| Incr Delay (d2), s/veh | 3.2 | 0.3 | 0.2 | 1.1 | 0.8 | 1.6 | 0.3 | 1.2 | 0.0 | 0.3 | 1.0 | 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(50%),veh/ln | 3.0 | 3.6 | 1.5 | 0.2 | 4.2 | 4.6 | 2.4 | 3.6 | 0.0 | 0.4 | 1.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.0 | 19.5 | 10.5 | 41.1 | 24.9 | 25.7 | 32.5 | 26.0 | 0.0 | 37.4 | 30.6 | 0.0 |
| LnGrp LOS | D | B | B | D | C | C | C | C | | D | C | |
| Approach Vol, veh/h | | 1093 | | | 801 | | | 484 | A | | 117 | A |
| Approach Delay, s/veh | | 20.8 | | | 25.4 | | | 29.6 | | | 31.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 31.4 | 18.1 | 21.7 | 6.0 | 37.7 | 10.1 | 29.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 59.7 | * 15 | * 60 | 15.0 | 59.7 | * 15 | 59.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.6 | 12.5 | 7.9 | 5.6 | 2.5 | 11.5 | 3.0 | 10.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 12.6 | 0.3 | 1.1 | 0.0 | 15.3 | 0.0 | 2.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 24.5 |
| HCM 6th LOS | C |

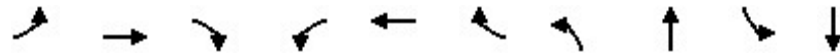
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/12/2020

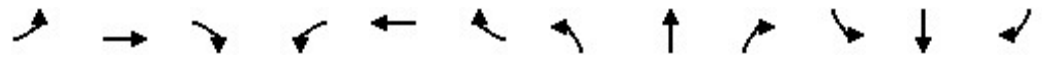


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 28 | 173 | 66 | 93 | 332 | 306 | 103 | 1492 | 169 | 734 |
| v/c Ratio | 0.17 | 0.32 | 0.11 | 0.30 | 0.46 | 0.54 | 0.16 | 0.60 | 0.57 | 0.38 |
| Control Delay | 53.1 | 45.6 | 2.9 | 53.2 | 44.6 | 15.7 | 40.3 | 25.0 | 60.7 | 29.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.1 | 45.6 | 2.9 | 53.2 | 44.6 | 15.7 | 40.3 | 25.0 | 60.7 | 29.0 |
| Queue Length 50th (ft) | 20 | 65 | 0 | 35 | 132 | 80 | 34 | 281 | 65 | 142 |
| Queue Length 95th (ft) | 51 | 85 | 16 | 61 | 151 | 112 | 58 | 445 | 102 | 232 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 162 | 1002 | 588 | 314 | 973 | 575 | 644 | 2467 | 326 | 2096 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.17 | 0.11 | 0.30 | 0.34 | 0.53 | 0.16 | 0.60 | 0.52 | 0.35 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑ | ↗ | ↖↗ | ↑↑ | ↗ | ↖↗ | ↑↑↔ | | ↖↗ | ↑↑↔ | |
| Traffic Volume (veh/h) | 27 | 164 | 63 | 88 | 315 | 291 | 98 | 1385 | 32 | 161 | 683 | 14 |
| Future Volume (veh/h) | 27 | 164 | 63 | 88 | 315 | 291 | 98 | 1385 | 32 | 161 | 683 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.95 | 1.00 | | 0.95 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 28 | 173 | 66 | 93 | 332 | 306 | 103 | 1458 | 34 | 169 | 719 | 15 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 701 | 830 | 275 | 825 | 701 | 1161 | 1587 | 37 | 761 | 988 | 21 |
| Arrive On Green | 0.06 | 0.20 | 0.20 | 0.08 | 0.23 | 0.23 | 0.34 | 0.31 | 0.31 | 0.22 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1781 | 3554 | 1510 | 3456 | 3554 | 1517 | 3456 | 5127 | 120 | 3456 | 5141 | 107 |
| Grp Volume(v), veh/h | 28 | 173 | 66 | 93 | 332 | 306 | 103 | 968 | 524 | 169 | 476 | 258 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1510 | 1728 | 1777 | 1517 | 1728 | 1702 | 1842 | 1728 | 1702 | 1844 |
| Q Serve(g_s), s | 1.8 | 4.9 | 0.0 | 3.1 | 9.5 | 2.8 | 2.4 | 32.9 | 32.9 | 4.8 | 15.7 | 15.8 |
| Cycle Q Clear(g_c), s | 1.8 | 4.9 | 0.0 | 3.1 | 9.5 | 2.8 | 2.4 | 32.9 | 32.9 | 4.8 | 15.7 | 15.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 99 | 701 | 830 | 275 | 825 | 701 | 1161 | 1054 | 570 | 761 | 654 | 354 |
| V/C Ratio(X) | 0.28 | 0.25 | 0.08 | 0.34 | 0.40 | 0.44 | 0.09 | 0.92 | 0.92 | 0.22 | 0.73 | 0.73 |
| Avail Cap(c_a), veh/h | 163 | 1007 | 960 | 288 | 977 | 766 | 1161 | 1211 | 655 | 761 | 1279 | 693 |
| 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(l) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 |
| Uniform Delay (d), s/veh | 54.4 | 40.6 | 13.6 | 52.2 | 39.0 | 10.2 | 27.3 | 40.0 | 40.0 | 38.4 | 45.5 | 45.5 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.0 | 14.0 | 22.2 | 0.1 | 6.6 | 11.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.2 | 0.9 | 1.3 | 4.2 | 3.4 | 1.0 | 15.7 | 18.3 | 2.1 | 7.2 | 8.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.9 | 40.7 | 13.7 | 52.5 | 39.1 | 10.3 | 27.3 | 54.0 | 62.2 | 38.4 | 52.1 | 57.4 |
| LnGrp LOS | D | D | B | D | D | B | C | D | E | D | D | E |
| Approach Vol, veh/h | | 267 | | | 731 | | | 1595 | | | 903 | |
| Approach Delay, s/veh | | 35.5 | | | 28.8 | | | 55.0 | | | 51.1 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 45.9 | 29.1 | 15.4 | 29.6 | 32.0 | 42.9 | 11.3 | 33.8 | | | | |
| Change Period (Y+Rc), s | * 5.6 | * 6 | * 5.9 | * 5.9 | 5.6 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | * 9 | * 45 | * 10 | * 34 | 11.4 | * 43 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 17.8 | 5.1 | 6.9 | 6.8 | 34.9 | 3.8 | 11.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.2 | 0.0 | 0.3 | 0.0 | 2.2 | 0.0 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 47.0 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

11/12/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 331 | 287 | 61 | 1488 | 179 | 31 | 451 | 97 |
| v/c Ratio | 0.75 | 0.66 | 0.11 | 0.68 | 0.18 | 0.26 | 0.21 | 0.10 |
| Control Delay | 50.2 | 45.5 | 4.2 | 16.0 | 3.0 | 16.2 | 10.2 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.2 | 45.5 | 4.2 | 16.0 | 3.0 | 16.2 | 10.2 | 1.7 |
| Queue Length 50th (ft) | 221 | 185 | 10 | 557 | 18 | 11 | 80 | 0 |
| Queue Length 95th (ft) | #433 | #355 | m2 | 57 | 0 | 27 | 83 | 17 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 440 | 436 | 609 | 2397 | 1095 | 132 | 2397 | 1103 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 0.66 | 0.10 | 0.62 | 0.16 | 0.23 | 0.19 | 0.09 |

Intersection Summary

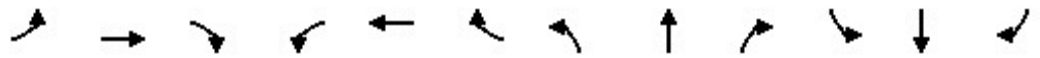
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 11: Sepulveda Bl & Braddock Dr

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 62 | 202 | 50 | 53 | 182 | 37 | 58 | 1414 | 170 | 29 | 428 | 92 |
| Future Volume (veh/h) | 62 | 202 | 50 | 53 | 182 | 37 | 58 | 1414 | 170 | 29 | 428 | 92 |
| 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 | 65 | 213 | 53 | 56 | 192 | 39 | 61 | 1488 | 179 | 31 | 451 | 97 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 84 | 221 | 51 | 79 | 225 | 42 | 602 | 2408 | 1074 | 193 | 2408 | 1074 |
| Arrive On Green | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| Sat Flow, veh/h | 210 | 954 | 222 | 188 | 973 | 183 | 859 | 3554 | 1585 | 298 | 3554 | 1585 |
| Grp Volume(v), veh/h | 331 | 0 | 0 | 287 | 0 | 0 | 61 | 1488 | 179 | 31 | 451 | 97 |
| Grp Sat Flow(s),veh/h/ln | 1386 | 0 | 0 | 1343 | 0 | 0 | 859 | 1777 | 1585 | 298 | 1777 | 1585 |
| Q Serve(g_s), s | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 27.9 | 4.9 | 7.7 | 5.6 | 2.5 |
| Cycle Q Clear(g_c), s | 27.8 | 0.0 | 0.0 | 24.7 | 0.0 | 0.0 | 9.0 | 27.9 | 4.9 | 35.6 | 5.6 | 2.5 |
| Prop In Lane | 0.20 | | 0.16 | 0.20 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 357 | 0 | 0 | 347 | 0 | 0 | 602 | 2408 | 1074 | 193 | 2408 | 1074 |
| V/C Ratio(X) | 0.93 | 0.00 | 0.00 | 0.83 | 0.00 | 0.00 | 0.10 | 0.62 | 0.17 | 0.16 | 0.19 | 0.09 |
| Avail Cap(c_a), veh/h | 357 | 0 | 0 | 347 | 0 | 0 | 602 | 2408 | 1074 | 193 | 2408 | 1074 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.1 | 0.0 | 0.0 | 43.9 | 0.0 | 0.0 | 8.8 | 10.7 | 7.0 | 20.6 | 7.1 | 6.6 |
| Incr Delay (d2), s/veh | 29.4 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.3 | 1.2 | 0.3 | 0.8 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.8 | 0.0 | 0.0 | 9.6 | 0.0 | 0.0 | 0.6 | 9.9 | 1.6 | 0.6 | 1.9 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 75.4 | 0.0 | 0.0 | 58.2 | 0.0 | 0.0 | 9.1 | 11.9 | 7.4 | 21.4 | 7.2 | 6.7 |
| LnGrp LOS | E | A | A | E | A | A | A | B | A | C | A | A |
| Approach Vol, veh/h | | 331 | | | 287 | | | 1728 | | | 579 | |
| Approach Delay, s/veh | | 75.4 | | | 58.2 | | | 11.4 | | | 7.9 | |
| Approach LOS | | E | | | E | | | B | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 87.0 | | 33.0 | | 87.0 | | 33.0 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 81.3 | | * 28 | | 81.3 | | * 28 | | | | |
| Max Q Clear Time (g_c+I1), s | | 29.9 | | 29.8 | | 37.6 | | 26.7 | | | | |
| Green Ext Time (p_c), s | | 35.1 | | 0.0 | | 8.5 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 22.5 | | | | | | | | |
| HCM 6th LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Existing (2019) PM

Queues

1: Culver Blvd & Sepulveda Blvd

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 224 | 1139 | 79 | 223 | 1227 | 110 | 709 | 166 | 49 | 1047 | 261 |
| v/c Ratio | 0.60 | 0.98 | 0.13 | 0.68 | 0.77 | 0.35 | 0.64 | 0.28 | 0.14 | 0.96 | 0.45 |
| Control Delay | 57.9 | 62.9 | 0.4 | 63.7 | 41.2 | 54.6 | 39.3 | 5.2 | 32.1 | 60.8 | 15.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.9 | 62.9 | 0.4 | 63.7 | 41.2 | 54.6 | 39.3 | 5.2 | 32.1 | 60.8 | 15.0 |
| Queue Length 50th (ft) | 86 | 459 | 0 | 87 | 315 | 41 | 262 | 0 | 27 | 419 | 56 |
| Queue Length 95th (ft) | 128 | #611 | 0 | 130 | 372 | 71 | 317 | 45 | 56 | #560 | 133 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 389 | 1159 | 629 | 331 | 1585 | 314 | 1182 | 626 | 341 | 1088 | 580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.98 | 0.13 | 0.67 | 0.77 | 0.35 | 0.60 | 0.27 | 0.14 | 0.96 | 0.45 |

























Intersection Summary

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

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/12/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 217 | 1105 | 77 | 216 | 1124 | 66 | 107 | 688 | 161 | 48 | 1016 | 253 |
| Future Volume (veh/h) | 217 | 1105 | 77 | 216 | 1124 | 66 | 107 | 688 | 161 | 48 | 1016 | 253 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.95 | 0.98 | | 0.96 |
| 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 | 224 | 1139 | 79 | 223 | 1159 | 68 | 110 | 709 | 166 | 49 | 1047 | 261 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 317 | 1161 | 503 | 785 | 2333 | 137 | 309 | 954 | 406 | 315 | 1092 | 468 |
| Arrive On Green | 0.09 | 0.33 | 0.33 | 0.23 | 0.47 | 0.47 | 0.09 | 0.27 | 0.27 | 0.12 | 0.31 | 0.31 |
| Sat Flow, veh/h | 3456 | 3554 | 1539 | 3456 | 4925 | 289 | 3456 | 3554 | 1513 | 1781 | 3554 | 1522 |
| Grp Volume(v), veh/h | 224 | 1139 | 79 | 223 | 801 | 426 | 110 | 709 | 166 | 49 | 1047 | 261 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1539 | 1728 | 1702 | 1809 | 1728 | 1777 | 1513 | 1781 | 1777 | 1522 |
| Q Serve(g_s), s | 7.6 | 38.1 | 4.1 | 6.4 | 19.4 | 19.5 | 3.6 | 21.9 | 10.8 | 0.0 | 34.7 | 17.2 |
| Cycle Q Clear(g_c), s | 7.6 | 38.1 | 4.1 | 6.4 | 19.4 | 19.5 | 3.6 | 21.9 | 10.8 | 0.0 | 34.7 | 17.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 317 | 1161 | 503 | 785 | 1613 | 857 | 309 | 954 | 406 | 315 | 1092 | 468 |
| V/C Ratio(X) | 0.71 | 0.98 | 0.16 | 0.28 | 0.50 | 0.50 | 0.36 | 0.74 | 0.41 | 0.16 | 0.96 | 0.56 |
| Avail Cap(c_a), veh/h | 392 | 1161 | 503 | 785 | 1613 | 857 | 317 | 1093 | 465 | 315 | 1093 | 468 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.9 | 40.0 | 25.4 | 38.3 | 21.7 | 21.7 | 51.4 | 40.1 | 36.1 | 42.9 | 40.8 | 34.7 |
| Incr Delay (d2), s/veh | 7.0 | 22.3 | 0.7 | 0.1 | 1.1 | 2.1 | 0.3 | 3.3 | 1.4 | 0.1 | 18.4 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.6 | 20.0 | 1.7 | 2.7 | 7.9 | 8.7 | 1.6 | 10.0 | 4.2 | 1.3 | 17.8 | 6.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.0 | 62.3 | 26.1 | 38.4 | 22.8 | 23.8 | 51.7 | 43.4 | 37.5 | 43.0 | 59.2 | 37.3 |
| LnGrp LOS | E | E | C | D | C | C | D | D | D | D | E | D |
| Approach Vol, veh/h | | 1442 | | | 1450 | | | 985 | | | 1357 | |
| Approach Delay, s/veh | | 60.0 | | | 25.5 | | | 43.3 | | | 54.4 | |
| Approach LOS | | E | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 63.1 | 20.4 | 38.3 | 33.5 | 45.0 | 15.7 | 43.0 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 13.6 | * 37 | * 11 | * 37 | * 12 | * 39 | 11.0 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.6 | 21.5 | 2.0 | 23.9 | 8.4 | 40.1 | 5.6 | 36.7 | | | | |
| Green Ext Time (p_c), s | 0.5 | 11.1 | 0.0 | 7.2 | 0.1 | 0.0 | 0.1 | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 45.8 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/12/2020



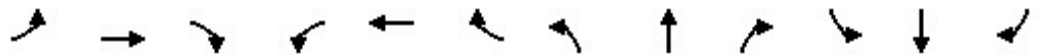
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 144 | 780 | 269 | 48 | 610 | 587 | 299 | 917 | 367 | 585 | 185 |
| v/c Ratio | 0.74 | 0.78 | 0.37 | 0.30 | 0.73 | 0.91 | 0.76 | 0.75 | 0.82 | 0.45 | 0.27 |
| Control Delay | 73.9 | 46.3 | 8.8 | 56.2 | 47.4 | 40.4 | 51.1 | 47.7 | 66.3 | 31.6 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 73.9 | 46.3 | 8.8 | 56.2 | 47.4 | 40.4 | 51.1 | 47.7 | 66.3 | 31.6 | 5.3 |
| Queue Length 50th (ft) | 109 | 302 | 43 | 35 | 231 | 239 | 127 | 378 | 144 | 183 | 0 |
| Queue Length 95th (ft) | #188 | 362 | 96 | 75 | 287 | #396 | 175 | 465 | #217 | 252 | 52 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 221 | 995 | 743 | 221 | 920 | 648 | 431 | 1220 | 449 | 1294 | 682 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.78 | 0.36 | 0.22 | 0.66 | 0.91 | 0.69 | 0.75 | 0.82 | 0.45 | 0.27 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 140 | 757 | 261 | 47 | 592 | 569 | 290 | 848 | 42 | 356 | 567 | 179 |
| Future Volume (veh/h) | 140 | 757 | 261 | 47 | 592 | 569 | 290 | 848 | 42 | 356 | 567 | 179 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 144 | 780 | 269 | 48 | 610 | 587 | 299 | 874 | 0 | 367 | 585 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 171 | 952 | 574 | 130 | 871 | 683 | 356 | 1026 | | 660 | 1365 | |
| Arrive On Green | 0.10 | 0.27 | 0.27 | 0.07 | 0.25 | 0.25 | 0.10 | 0.29 | 0.00 | 0.19 | 0.38 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1533 | 1781 | 3554 | 1550 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 144 | 780 | 269 | 48 | 610 | 587 | 299 | 874 | 0 | 367 | 585 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1533 | 1781 | 1777 | 1550 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 9.5 | 24.7 | 16.1 | 3.1 | 18.8 | 10.4 | 10.2 | 27.8 | 0.0 | 11.5 | 14.6 | 0.0 |
| Cycle Q Clear(g_c), s | 9.5 | 24.7 | 16.1 | 3.1 | 18.8 | 10.4 | 10.2 | 27.8 | 0.0 | 11.5 | 14.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 171 | 952 | 574 | 130 | 871 | 683 | 356 | 1026 | | 660 | 1365 | |
| V/C Ratio(X) | 0.84 | 0.82 | 0.47 | 0.37 | 0.70 | 0.86 | 0.84 | 0.85 | | 0.56 | 0.43 | |
| Avail Cap(c_a), veh/h | 223 | 952 | 574 | 223 | 924 | 706 | 435 | 1102 | | 660 | 1365 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.4 | 41.2 | 28.8 | 53.0 | 41.3 | 12.8 | 52.8 | 40.2 | 0.0 | 43.9 | 27.2 | 0.0 |
| Incr Delay (d2), s/veh | 16.1 | 6.4 | 1.3 | 0.6 | 3.0 | 11.2 | 9.8 | 8.9 | 0.0 | 0.6 | 1.0 | 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(50%),veh/ln | 5.0 | 11.6 | 6.1 | 1.4 | 8.6 | 9.9 | 4.9 | 13.3 | 0.0 | 5.0 | 6.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 69.5 | 47.6 | 30.1 | 53.6 | 44.3 | 24.0 | 62.7 | 49.1 | 0.0 | 44.6 | 28.2 | 0.0 |
| LnGrp LOS | E | D | C | D | D | C | E | D | | D | C | |
| Approach Vol, veh/h | | 1193 | | | 1245 | | | 1173 | A | | 952 | A |
| Approach Delay, s/veh | | 46.3 | | | 35.1 | | | 52.6 | | | 34.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 28.8 | 40.5 | 12.8 | 37.9 | 17.3 | 52.0 | 15.5 | 35.2 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 15.7 | * 37 | 15.0 | 31.2 | 15.1 | * 38 | 15.0 | 31.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.5 | 29.8 | 5.1 | 26.7 | 12.2 | 16.6 | 11.5 | 20.8 | | | | |
| Green Ext Time (p_c), s | 0.2 | 4.8 | 0.0 | 3.3 | 0.2 | 7.0 | 0.1 | 7.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 42.4 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 4 | 3 | 80.0% | 25.8 | 33.6 | C |
| | Through | 762 | 748 | 98.1% | 9.5 | 1.8 | A |
| | Right Turn | 65 | 63 | 96.9% | 3.4 | 1.8 | A |
| | Subtotal | 831 | 814 | 97.9% | 9.1 | 1.7 | A |
| SB | Left Turn | 235 | 243 | 103.4% | 83.1 | 28.7 | F |
| | Through | 1,140 | 1,127 | 98.9% | 24.1 | 23.0 | C |
| | Right Turn | 10 | 10 | 97.0% | 13.6 | 7.6 | B |
| | Subtotal | 1,385 | 1,380 | 99.6% | 34.7 | 20.3 | C |
| EB | Left Turn | | | | | | |
| | Through | 5 | 5 | 96.0% | 41.7 | 28.5 | D |
| | Right Turn | 1 | 1 | 100.0% | 0.9 | 2.7 | A |
| | Subtotal | 6 | 6 | 96.7% | 36.7 | 29.6 | D |
| WB | Left Turn | 28 | 27 | 96.1% | 55.6 | 9.0 | E |
| | Through | 3 | 5 | 156.7% | 22.3 | 26.8 | C |
| | Right Turn | 224 | 222 | 99.3% | 9.2 | 0.8 | A |
| | Subtotal | 255 | 254 | 99.6% | 14.9 | 2.2 | B |
| Total | | 2,477 | 2,453 | 99.0% | 24.4 | 11.4 | C |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 35 | 34 | 96.6% | 13.3 | 7.2 | B |
| | Through | 1,114 | 1,093 | 98.1% | 11.1 | 4.0 | B |
| | Right Turn | 49 | 46 | 92.9% | 9.0 | 6.3 | A |
| | Subtotal | 1,198 | 1,172 | 97.9% | 11.0 | 4.0 | B |
| SB | Left Turn | 77 | 76 | 98.2% | 28.2 | 17.9 | C |
| | Through | 746 | 716 | 96.0% | 33.2 | 43.1 | C |
| | Right Turn | 180 | 180 | 100.2% | 10.1 | 19.3 | B |
| | Subtotal | 1,003 | 972 | 96.9% | 28.0 | 35.0 | C |
| EB | Left Turn | 189 | 194 | 102.7% | 36.6 | 8.8 | D |
| | Through | 95 | 96 | 101.1% | 30.7 | 9.2 | C |
| | Right Turn | 21 | 22 | 104.3% | 14.0 | 25.1 | B |
| | Subtotal | 305 | 312 | 102.3% | 32.8 | 6.7 | C |
| WB | Left Turn | 26 | 24 | 91.2% | 43.4 | 10.9 | D |
| | Through | 40 | 39 | 98.3% | 49.5 | 7.8 | D |
| | Right Turn | 1 | 1 | 120.0% | 5.5 | 16.0 | A |
| | Subtotal | 67 | 64 | 95.8% | 46.3 | 6.0 | D |
| Total | | 2,573 | 2,521 | 98.0% | 20.2 | 11.4 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 24 | 24 | 101.3% | 106.0 | 134.6 | F |
| | Through | 797 | 788 | 98.8% | 1.4 | 3.5 | A |
| | Right Turn | 2 | 3 | 125.0% | 0.1 | 0.3 | A |
| | Subtotal | 823 | 815 | 99.0% | 4.5 | 10.1 | A |
| SB | Left Turn | 10 | 8 | 84.0% | 25.8 | 21.9 | D |
| | Through | 1,084 | 1,071 | 98.8% | 26.0 | 21.9 | D |
| | Right Turn | 75 | 72 | 95.3% | 18.7 | 16.9 | C |
| | Subtotal | 1,169 | 1,151 | 98.5% | 25.6 | 21.6 | D |
| EB | Left Turn | 14 | 12 | 82.1% | 231.9 | 328.2 | F |
| | Through | | | | | | |
| | Right Turn | 15 | 16 | 104.7% | 146.7 | 270.6 | F |
| | Subtotal | 29 | 27 | 93.8% | 35.3 | 39.3 | E |
| WB | Left Turn | 1 | 1 | 60.0% | 10.8 | 22.8 | B |
| | Through | 1 | 1 | 50.0% | 186.3 | 376.4 | F |
| | Right Turn | 20 | 15 | 76.5% | 169.6 | 347.9 | F |
| | Subtotal | 22 | 16 | 74.5% | 7.5 | 6.5 | A |
| Total | | 2,043 | 2,009 | 98.3% | 17.3 | 15.1 | C |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 792 | 783 | 98.9% | 4.4 | 4.3 | A |
| | Right Turn | 1,198 | 1,173 | 97.9% | 3.6 | 0.4 | A |
| | Subtotal | 1,990 | 1,956 | 98.3% | 3.9 | 1.7 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,105 | 1,078 | 97.5% | 86.1 | 32.5 | F |
| | Right Turn | 13 | 12 | 93.1% | 59.4 | 41.5 | E |
| | Subtotal | 1,118 | 1,090 | 97.5% | 86.0 | 32.5 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 775 | 737 | 95.1% | 94.7 | 60.1 | F |
| | Through | 7 | 7 | 100.0% | 47.1 | 33.6 | D |
| | Right Turn | 11 | 11 | 101.8% | 72.6 | 63.7 | E |
| | Subtotal | 793 | 756 | 95.3% | 94.3 | 59.4 | F |
| Total | | 3,901 | 3,801 | 97.4% | 43.1 | 12.9 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing
PM Peak Hour

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 84 | 80 | 95.7% | 110.3 | 31.3 | F |
| | Through | 1,732 | 1,704 | 98.4% | 74.9 | 22.5 | E |
| | Right Turn | 56 | 56 | 99.8% | 78.3 | 21.6 | E |
| | Subtotal | 1,872 | 1,840 | 98.3% | 76.3 | 22.3 | E |
| SB | Left Turn | 116 | 109 | 93.9% | 56.3 | 18.3 | E |
| | Through | 1,625 | 1,566 | 96.4% | 22.9 | 5.0 | C |
| | Right Turn | 139 | 137 | 98.7% | 15.0 | 4.5 | B |
| | Subtotal | 1,880 | 1,812 | 96.4% | 24.6 | 4.0 | C |
| EB | Left Turn | 163 | 158 | 96.7% | 199.1 | 94.3 | F |
| | Through | 210 | 204 | 97.3% | 173.0 | 82.8 | F |
| | Right Turn | 222 | 220 | 98.9% | 153.5 | 78.6 | F |
| | Subtotal | 595 | 582 | 97.7% | 174.1 | 84.8 | F |
| WB | Left Turn | 58 | 62 | 107.4% | 90.8 | 57.9 | F |
| | Through | 143 | 140 | 97.7% | 51.3 | 26.0 | D |
| | Right Turn | 95 | 95 | 99.5% | 11.3 | 4.0 | B |
| | Subtotal | 296 | 297 | 100.2% | 46.5 | 24.3 | D |
| Total | | 4,643 | 4,531 | 97.6% | 64.6 | 9.9 | E |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 3

Sepulveda Bl/Machado Rd

11111 Jefferson Project
 Existing
 PM Peak Hour
 Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 1 | 25 | 4 | 25 | 10 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 1 | 25 | 5 | 25 | 16 | 0% | 0% |
| | Through | 400 | 75 | 10 | 125 | 25 | 175 | 44 | 1% | 0% |
| | Through/Right | 400 | 75 | 10 | 150 | 22 | 200 | 36 | 0% | 0% |
| SB | Left Turn | 225 | 125 | 31 | 250 | 65 | 275 | 48 | 1% | 0% |
| | Through | 375 | 150 | 58 | 325 | 109 | 425 | 35 | 22% | 4% |
| | Right Turn | 50 | 25 | 2 | 25 | 7 | 50 | 9 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 4 | 50 | 9 | 75 | 16 | 0% | 0% |
| | Right Turn | 600 | 25 | 2 | 50 | 7 | 75 | 12 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 125 | 17 | 225 | 32 | 225 | 30 | 4% | 0% |
| | Through | 600 | 75 | 16 | 175 | 50 | 275 | 102 | 0% | 0% |
| | Right Turn | 600 | 25 | 2 | 50 | 6 | 50 | 15 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 10 | 100 | 48 | 200 | 121 | 0% | 0% |
| | Through | 475 | 125 | 37 | 325 | 95 | 525 | 114 | 3% | 1% |
| | Through/Right | 475 | 125 | 37 | 325 | 87 | 500 | 99 | 0% | 1% |
| SB | Left Turn | 200 | 50 | 8 | 125 | 34 | 175 | 81 | 0% | 0% |
| | Through | 750 | 175 | 37 | 325 | 122 | 375 | 163 | 5% | 1% |
| | Right Turn | 375 | 50 | 13 | 100 | 60 | 125 | 118 | 0% | 0% |
| WB | Left Turn | 150 | 25 | 5 | 75 | 11 | 75 | 17 | 0% | 0% |
| | Through/Right | 150 | 50 | 8 | 100 | 13 | 125 | 31 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 35 | 100 | 85 | 125 | 82 | 20% | 0% |
| | Right Turn | 75 | 25 | 4 | 50 | 9 | 75 | 18 | 1% | 0% |
| NB | Left Turn | 125 | 50 | 15 | 75 | 29 | 100 | 27 | 4% | 4% |
| | Through | 125 | 25 | 28 | 50 | 77 | 50 | 79 | 4% | 4% |
| | Through/Right | 125 | 25 | 0 | 25 | 2 | 25 | 4 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 4 | 50 | 20 | 75 | 46 | 0% | 0% |
| | Through | 400 | 175 | 109 | 425 | 151 | 450 | 68 | 21% | 9% |
| | Right Turn | 125 | 25 | 17 | 100 | 44 | 125 | 0 | 0% | 0% |
| WB | Shared | 125 | 50 | 24 | 75 | 35 | 75 | 34 | 0% | 6% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 25 | 9 | 75 | 36 | 100 | 53 | 0% | 0% |
| | Right Turn | 225 | 25 | 3 | 50 | 26 | 100 | 73 | 0% | 0% |
| SB | Through | 175 | 250 | 8 | 300 | 19 | 275 | 14 | 0% | 62% |
| | Through/Right | 175 | 250 | 12 | 300 | 19 | 300 | 8 | 0% | 56% |
| WB | Left Turn | 475 | 250 | 32 | 425 | 55 | 475 | 49 | 12% | 3% |
| | Shared | 300 | 225 | 25 | 375 | 29 | 375 | 1 | 10% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 11 | 250 | 8 | 200 | 0 | 16% | 7% |
| | Through | 200 | 250 | 19 | 325 | 26 | 300 | 12 | 58% | 49% |
| | Right Turn | 50 | 75 | 4 | 100 | 4 | 75 | 1 | 15% | 0% |
| NB | Left Turn | 275 | 100 | 16 | 200 | 36 | 250 | 14 | 0% | 0% |
| | Through | 250 | 325 | 20 | 400 | 24 | 350 | 17 | 41% | 42% |
| | Through/Right | 250 | 250 | 6 | 275 | 21 | 250 | 0 | 22% | 9% |
| SB | Left Turn | 175 | 100 | 14 | 175 | 23 | 175 | 16 | 4% | 0% |
| | Through | 225 | 225 | 13 | 300 | 19 | 300 | 14 | 20% | 7% |
| | Through/Right | 225 | 200 | 11 | 300 | 16 | 300 | 12 | 0% | 4% |
| WB | Left Turn | 100 | 75 | 12 | 150 | 14 | 150 | 0 | 14% | 0% |
| | Through | 325 | 125 | 19 | 250 | 49 | 325 | 59 | 20% | 1% |
| | Through/Right | 325 | 50 | 5 | 100 | 13 | 125 | 31 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

11/12/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 549 | 377 | 204 | 501 | 56 | 1344 | 106 | 1539 | 427 |
| v/c Ratio | 0.78 | 0.64 | 0.29 | 0.59 | 0.39 | 0.78 | 0.52 | 0.75 | 0.38 |
| Control Delay | 60.8 | 58.0 | 49.6 | 46.8 | 74.2 | 44.0 | 71.1 | 39.6 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.8 | 58.0 | 49.6 | 46.8 | 74.2 | 44.1 | 71.1 | 39.6 | 5.4 |
| Queue Length 50th (ft) | 231 | 163 | 78 | 127 | 47 | 379 | 86 | 417 | 44 |
| Queue Length 95th (ft) | #402 | 250 | 142 | 184 | 113 | 553 | #204 | 664 | 156 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 843 | 1606 | 692 | 1641 | 205 | 2286 | 222 | 2316 | 1189 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.23 | 0.29 | 0.31 | 0.27 | 0.63 | 0.48 | 0.66 | 0.36 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↕↔ | | ↔↔ | ↕↕↔ | | ↔ | ↕↕↔ | | ↔ | ↕↕↕ | ↔ |
| Traffic Volume (veh/h) | 533 | 336 | 30 | 198 | 305 | 181 | 54 | 1169 | 135 | 103 | 1493 | 414 |
| Future Volume (veh/h) | 533 | 336 | 30 | 198 | 305 | 181 | 54 | 1169 | 135 | 103 | 1493 | 414 |
| 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 | 549 | 346 | 0 | 204 | 314 | 0 | 56 | 1205 | 139 | 106 | 1539 | 427 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 645 | 475 | | 605 | 682 | | 118 | 1611 | 186 | 217 | 2115 | 952 |
| Arrive On Green | 0.19 | 0.13 | 0.00 | 0.17 | 0.13 | 0.00 | 0.07 | 0.35 | 0.35 | 0.12 | 0.41 | 0.41 |
| Sat Flow, veh/h | 3456 | 3647 | 0 | 3456 | 5274 | 0 | 1781 | 4643 | 535 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 549 | 346 | 0 | 204 | 314 | 0 | 56 | 883 | 461 | 106 | 1539 | 427 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1774 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 17.3 | 10.5 | 0.0 | 5.8 | 6.4 | 0.0 | 3.4 | 25.7 | 25.7 | 6.2 | 28.4 | 16.5 |
| Cycle Q Clear(g_c), s | 17.3 | 10.5 | 0.0 | 5.8 | 6.4 | 0.0 | 3.4 | 25.7 | 25.7 | 6.2 | 28.4 | 16.5 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.30 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 645 | 475 | | 605 | 682 | | 118 | 1181 | 616 | 217 | 2115 | 952 |
| V/C Ratio(X) | 0.85 | 0.73 | | 0.34 | 0.46 | | 0.48 | 0.75 | 0.75 | 0.49 | 0.73 | 0.45 |
| Avail Cap(c_a), veh/h | 984 | 1889 | | 605 | 1955 | | 239 | 1812 | 944 | 239 | 2718 | 1140 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 44.2 | 46.7 | 0.0 | 40.6 | 44.9 | 0.0 | 50.6 | 32.3 | 32.3 | 46.1 | 27.6 | 12.2 |
| Incr Delay (d2), s/veh | 4.6 | 2.2 | 0.0 | 0.3 | 0.5 | 0.0 | 3.0 | 1.0 | 1.8 | 1.7 | 0.7 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.7 | 4.8 | 0.0 | 2.5 | 2.7 | 0.0 | 1.6 | 10.5 | 11.1 | 2.8 | 11.3 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 48.7 | 48.8 | 0.0 | 41.0 | 45.4 | 0.0 | 53.5 | 33.3 | 34.2 | 47.8 | 28.3 | 12.6 |
| LnGrp LOS | D | D | | D | D | | D | C | C | D | C | B |
| Approach Vol, veh/h | | 895 | A | | 518 | A | | 1400 | | | 2072 | |
| Approach Delay, s/veh | | 48.8 | | | 43.7 | | | 34.4 | | | 26.1 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 52.7 | 26.0 | 21.3 | 19.9 | 45.2 | 26.0 | 21.3 | | | | |
| Change Period (Y+Rc), s | 4.9 | 6.2 | 6.3 | * 6.3 | 6.2 | * 6.2 | 5.0 | 6.3 | | | | |
| Max Green Setting (Gmax), s | 15.1 | 59.8 | 15.0 | * 60 | 15.1 | * 60 | 32.0 | 43.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.4 | 30.4 | 7.8 | 12.5 | 8.2 | 27.7 | 19.3 | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.1 | 16.1 | 0.4 | 2.5 | 0.1 | 11.3 | 1.7 | 2.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 34.5 |
| HCM 6th LOS | C |

Notes

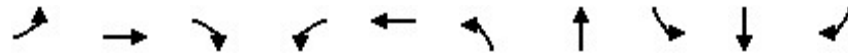
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 97 | 825 | 242 | 45 | 797 | 342 | 115 | 30 | 268 | 259 |
| v/c Ratio | 0.49 | 0.52 | 0.27 | 0.26 | 0.60 | 0.62 | 0.19 | 0.12 | 0.60 | 0.51 |
| Control Delay | 51.8 | 29.6 | 7.6 | 48.7 | 33.1 | 45.4 | 26.5 | 43.0 | 39.1 | 14.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.8 | 29.6 | 7.6 | 48.7 | 33.1 | 45.4 | 26.5 | 43.0 | 39.1 | 14.7 |
| Queue Length 50th (ft) | 55 | 153 | 34 | 25 | 149 | 98 | 51 | 16 | 142 | 40 |
| Queue Length 95th (ft) | 124 | 227 | 95 | 71 | 232 | #196 | 109 | 51 | 253 | 123 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 285 | 3269 | 910 | 285 | 3251 | 551 | 1161 | 291 | 1211 | 1091 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.25 | 0.27 | 0.16 | 0.25 | 0.62 | 0.10 | 0.10 | 0.22 | 0.24 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 94 | 800 | 235 | 44 | 743 | 30 | 332 | 92 | 19 | 29 | 260 | 251 |
| Future Volume (veh/h) | 94 | 800 | 235 | 44 | 743 | 30 | 332 | 92 | 19 | 29 | 260 | 251 |
| 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 | 97 | 825 | 242 | 45 | 766 | 31 | 342 | 95 | 0 | 30 | 268 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 145 | 1745 | 773 | 121 | 1651 | 67 | 504 | 505 | | 136 | 367 | |
| Arrive On Green | 0.08 | 0.34 | 0.34 | 0.07 | 0.33 | 0.33 | 0.15 | 0.27 | 0.00 | 0.08 | 0.20 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5035 | 203 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 97 | 825 | 242 | 45 | 517 | 280 | 342 | 95 | 0 | 30 | 268 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1834 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 4.7 | 11.3 | 8.2 | 2.2 | 10.7 | 10.8 | 8.4 | 3.5 | 0.0 | 1.4 | 12.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.7 | 11.3 | 8.2 | 2.2 | 10.7 | 10.8 | 8.4 | 3.5 | 0.0 | 1.4 | 12.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 145 | 1745 | 773 | 121 | 1116 | 601 | 504 | 505 | | 136 | 367 | |
| V/C Ratio(X) | 0.67 | 0.47 | 0.31 | 0.37 | 0.46 | 0.47 | 0.68 | 0.19 | | 0.22 | 0.73 | |
| Avail Cap(c_a), veh/h | 300 | 3423 | 1294 | 300 | 2282 | 1229 | 578 | 1245 | | 306 | 1269 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 39.7 | 23.0 | 13.8 | 39.7 | 23.7 | 23.7 | 36.0 | 25.0 | 0.0 | 38.6 | 33.6 | 0.0 |
| Incr Delay (d2), s/veh | 2.0 | 0.4 | 0.5 | 0.7 | 0.6 | 1.2 | 1.8 | 0.4 | 0.0 | 0.3 | 5.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 4.5 | 2.9 | 1.0 | 4.3 | 4.7 | 3.6 | 1.6 | 0.0 | 0.6 | 5.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 41.7 | 23.4 | 14.3 | 40.4 | 24.4 | 24.9 | 37.9 | 25.4 | 0.0 | 38.9 | 39.4 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1164 | | | 842 | | | 437 | A | | 298 | A |
| Approach Delay, s/veh | | 23.1 | | | 25.4 | | | 35.2 | | | 39.4 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 35.5 | 18.1 | 24.2 | 10.0 | 36.7 | 11.5 | 30.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 59.7 | * 15 | * 60 | 15.0 | 59.7 | * 15 | 59.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 12.8 | 10.4 | 14.0 | 4.2 | 13.3 | 3.4 | 5.5 | | | | |
| Green Ext Time (p_c), s | 0.1 | 12.7 | 0.3 | 3.5 | 0.0 | 17.1 | 0.0 | 1.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 27.5 |
| HCM 6th LOS | C |

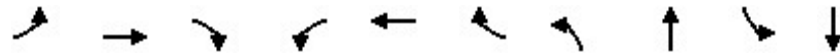
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 354 | 230 | 180 | 256 | 223 | 142 | 1238 | 270 | 1449 |
| v/c Ratio | 0.28 | 0.64 | 0.50 | 0.58 | 0.40 | 0.39 | 0.53 | 0.54 | 0.66 | 0.58 |
| Control Delay | 55.9 | 52.2 | 13.4 | 60.3 | 45.4 | 8.4 | 61.0 | 26.1 | 59.1 | 23.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Total Delay | 55.9 | 52.2 | 13.4 | 60.3 | 45.4 | 8.4 | 61.0 | 26.1 | 59.1 | 24.2 |
| Queue Length 50th (ft) | 34 | 142 | 49 | 70 | 100 | 32 | 55 | 233 | 104 | 262 |
| Queue Length 95th (ft) | 73 | 163 | 77 | 107 | 118 | 58 | 88 | 369 | 148 | 422 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 168 | 976 | 491 | 329 | 976 | 586 | 331 | 2274 | 440 | 2501 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 422 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.36 | 0.47 | 0.55 | 0.26 | 0.38 | 0.43 | 0.54 | 0.61 | 0.70 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 45 | 343 | 223 | 175 | 248 | 216 | 138 | 1133 | 68 | 262 | 1383 | 22 |
| Future Volume (veh/h) | 45 | 343 | 223 | 175 | 248 | 216 | 138 | 1133 | 68 | 262 | 1383 | 22 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.94 | 1.00 | | 0.93 | 1.00 | | 0.93 | 1.00 | | 0.94 |
| 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 | 354 | 230 | 180 | 256 | 223 | 142 | 1168 | 70 | 270 | 1426 | 23 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 128 | 835 | 469 | 287 | 913 | 704 | 257 | 1375 | 82 | 708 | 2142 | 35 |
| Arrive On Green | 0.07 | 0.23 | 0.23 | 0.08 | 0.26 | 0.26 | 0.07 | 0.28 | 0.28 | 0.20 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1781 | 3554 | 1496 | 3456 | 3554 | 1477 | 3456 | 4902 | 294 | 3456 | 5170 | 83 |
| Grp Volume(v), veh/h | 46 | 354 | 230 | 180 | 256 | 223 | 142 | 811 | 427 | 270 | 939 | 510 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1496 | 1728 | 1777 | 1477 | 1728 | 1702 | 1792 | 1728 | 1702 | 1849 |
| Q Serve(g_s), s | 3.0 | 10.2 | 10.1 | 6.0 | 6.9 | 2.4 | 4.8 | 27.0 | 27.0 | 8.1 | 26.8 | 26.8 |
| Cycle Q Clear(g_c), s | 3.0 | 10.2 | 10.1 | 6.0 | 6.9 | 2.4 | 4.8 | 27.0 | 27.0 | 8.1 | 26.8 | 26.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.05 |
| Lane Grp Cap(c), veh/h | 128 | 835 | 469 | 287 | 913 | 704 | 257 | 955 | 503 | 708 | 1410 | 766 |
| V/C Ratio(X) | 0.36 | 0.42 | 0.49 | 0.63 | 0.28 | 0.32 | 0.55 | 0.85 | 0.85 | 0.38 | 0.67 | 0.67 |
| Avail Cap(c_a), veh/h | 169 | 980 | 530 | 328 | 980 | 732 | 334 | 1084 | 570 | 708 | 1410 | 766 |
| 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(l) | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.65 | 0.65 | 0.65 |
| Uniform Delay (d), s/veh | 53.1 | 39.0 | 16.5 | 53.2 | 35.7 | 8.4 | 53.6 | 40.8 | 40.8 | 41.2 | 28.4 | 28.4 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.3 | 1.8 | 0.1 | 0.1 | 0.7 | 9.3 | 16.3 | 0.1 | 1.6 | 3.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 4.5 | 3.5 | 2.7 | 3.0 | 2.1 | 2.1 | 12.5 | 14.1 | 3.5 | 11.1 | 12.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.6 | 39.1 | 16.8 | 55.0 | 35.8 | 8.5 | 54.3 | 50.1 | 57.1 | 41.2 | 30.1 | 31.4 |
| LnGrp LOS | D | D | B | D | D | A | D | D | E | D | C | C |
| Approach Vol, veh/h | | 630 | | | 659 | | | 1380 | | | 1719 | |
| Approach Delay, s/veh | | 32.0 | | | 31.8 | | | 52.7 | | | 32.2 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 55.7 | 15.9 | 34.1 | 30.6 | 39.5 | 13.2 | 36.7 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 11.6 | * 42 | * 11 | * 33 | 15.4 | * 38 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 28.8 | 8.0 | 12.2 | 10.1 | 29.0 | 5.0 | 8.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.6 | 0.0 | 0.6 | 0.0 | 1.9 | 0.0 | 0.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.6 |
| HCM 6th LOS | D |

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

11/12/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 184 | 292 | 40 | 875 | 115 | 35 | 1289 | 75 |
| v/c Ratio | 0.42 | 0.77 | 0.21 | 0.38 | 0.11 | 0.10 | 0.57 | 0.07 |
| Control Delay | 35.4 | 53.5 | 19.5 | 14.7 | 8.8 | 10.7 | 14.0 | 5.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.4 | 53.5 | 19.5 | 14.7 | 8.8 | 10.7 | 14.0 | 5.8 |
| Queue Length 50th (ft) | 107 | 203 | 19 | 224 | 30 | 10 | 281 | 11 |
| Queue Length 95th (ft) | 165 | 291 | 38 | 242 | 50 | 28 | 385 | 33 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 453 | 388 | 201 | 2421 | 1107 | 365 | 2421 | 1094 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.75 | 0.20 | 0.36 | 0.10 | 0.10 | 0.53 | 0.07 |

Intersection Summary

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 28 | 103 | 48 | 87 | 156 | 40 | 39 | 849 | 112 | 34 | 1250 | 73 |
| Future Volume (veh/h) | 28 | 103 | 48 | 87 | 156 | 40 | 39 | 849 | 112 | 34 | 1250 | 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 | 29 | 106 | 49 | 90 | 161 | 41 | 40 | 875 | 115 | 35 | 1289 | 75 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 215 | 90 | 125 | 187 | 45 | 272 | 2493 | 1112 | 403 | 2493 | 1112 |
| Arrive On Green | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Sat Flow, veh/h | 157 | 1035 | 433 | 415 | 899 | 215 | 399 | 3554 | 1585 | 569 | 3554 | 1585 |
| Grp Volume(v), veh/h | 184 | 0 | 0 | 292 | 0 | 0 | 40 | 875 | 115 | 35 | 1289 | 75 |
| Grp Sat Flow(s),veh/h/ln | 1625 | 0 | 0 | 1528 | 0 | 0 | 399 | 1777 | 1585 | 569 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 0.0 | 6.3 | 11.7 | 2.8 | 3.1 | 20.4 | 1.8 |
| Cycle Q Clear(g_c), s | 11.4 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 26.7 | 11.7 | 2.8 | 14.8 | 20.4 | 1.8 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 372 | 0 | 0 | 357 | 0 | 0 | 272 | 2493 | 1112 | 403 | 2493 | 1112 |
| V/C Ratio(X) | 0.49 | 0.00 | 0.00 | 0.82 | 0.00 | 0.00 | 0.15 | 0.35 | 0.10 | 0.09 | 0.52 | 0.07 |
| Avail Cap(c_a), veh/h | 412 | 0 | 0 | 394 | 0 | 0 | 272 | 2493 | 1112 | 403 | 2493 | 1112 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.0 | 0.0 | 0.0 | 46.7 | 0.0 | 0.0 | 14.6 | 7.1 | 5.8 | 10.0 | 8.4 | 5.6 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 1.1 | 0.4 | 0.2 | 0.2 | 0.4 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.9 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 0.6 | 4.0 | 0.9 | 0.4 | 6.8 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.4 | 0.0 | 0.0 | 57.2 | 0.0 | 0.0 | 15.8 | 7.5 | 6.0 | 10.2 | 8.8 | 5.7 |
| LnGrp LOS | D | A | A | E | A | A | B | A | A | B | A | A |
| Approach Vol, veh/h | | 184 | | | 292 | | | 1030 | | | 1399 | |
| Approach Delay, s/veh | | 42.4 | | | 57.2 | | | 7.6 | | | 8.6 | |
| Approach LOS | | D | | | E | | | A | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 89.9 | | 30.1 | | 89.9 | | 30.1 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 81.3 | | * 28 | | 81.3 | | * 28 | | | | |
| Max Q Clear Time (g_c+I1), s | | 28.7 | | 13.4 | | 22.4 | | 24.6 | | | | |
| Green Ext Time (p_c), s | | 18.2 | | 0.6 | | 30.0 | | 0.4 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 15.3 |
| HCM 6th LOS | B |

Notes

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

Existing Plus Project AM

Queues

1: Culver Blvd & Sepulveda Blvd

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 254 | 1153 | 65 | 141 | 1158 | 243 | 1151 | 253 | 78 | 464 | 179 |
| v/c Ratio | 0.75 | 0.93 | 0.10 | 0.45 | 0.67 | 0.69 | 1.03 | 0.42 | 0.35 | 0.47 | 0.32 |
| Control Delay | 67.2 | 53.0 | 0.3 | 56.4 | 36.6 | 63.0 | 75.0 | 12.8 | 45.3 | 37.0 | 6.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.2 | 53.0 | 0.3 | 56.4 | 36.6 | 63.0 | 75.0 | 12.8 | 45.3 | 37.0 | 6.2 |
| Queue Length 50th (ft) | 100 | ~478 | 0 | 54 | 288 | 94 | ~500 | 44 | 43 | 151 | 0 |
| Queue Length 95th (ft) | #156 | #628 | 0 | 87 | 343 | 138 | #636 | 116 | 82 | 202 | 52 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 338 | 1234 | 658 | 315 | 1724 | 372 | 1119 | 597 | 221 | 1071 | 587 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 0.93 | 0.10 | 0.45 | 0.67 | 0.65 | 1.03 | 0.42 | 0.35 | 0.43 | 0.30 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/12/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 241 | 1095 | 62 | 134 | 1023 | 77 | 231 | 1093 | 240 | 74 | 441 | 170 |
| Future Volume (veh/h) | 241 | 1095 | 62 | 134 | 1023 | 77 | 231 | 1093 | 240 | 74 | 441 | 170 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.95 |
| 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 | 254 | 1153 | 65 | 141 | 1077 | 81 | 243 | 1151 | 253 | 78 | 464 | 179 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 317 | 1143 | 493 | 1622 | 3439 | 258 | 317 | 1122 | 481 | 211 | 1131 | 481 |
| Arrive On Green | 0.09 | 0.32 | 0.32 | 0.47 | 0.71 | 0.71 | 0.09 | 0.32 | 0.32 | 0.08 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1534 | 3456 | 4836 | 363 | 3456 | 3554 | 1522 | 1781 | 3554 | 1513 |
| Grp Volume(v), veh/h | 254 | 1153 | 65 | 141 | 758 | 400 | 243 | 1151 | 253 | 78 | 464 | 179 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1534 | 1728 | 1702 | 1795 | 1728 | 1777 | 1522 | 1781 | 1777 | 1513 |
| Q Serve(g_s), s | 8.6 | 38.6 | 4.7 | 2.7 | 9.9 | 9.9 | 8.2 | 37.9 | 16.4 | 0.8 | 12.3 | 11.0 |
| Cycle Q Clear(g_c), s | 8.6 | 38.6 | 4.7 | 2.7 | 9.9 | 9.9 | 8.2 | 37.9 | 16.4 | 0.8 | 12.3 | 11.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 317 | 1143 | 493 | 1622 | 2421 | 1277 | 317 | 1122 | 481 | 211 | 1131 | 481 |
| V/C Ratio(X) | 0.80 | 1.01 | 0.13 | 0.09 | 0.31 | 0.31 | 0.77 | 1.03 | 0.53 | 0.37 | 0.41 | 0.37 |
| Avail Cap(c_a), veh/h | 340 | 1143 | 493 | 1622 | 2421 | 1277 | 374 | 1122 | 481 | 223 | 1131 | 481 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.4 | 40.7 | 49.3 | 17.6 | 6.4 | 6.4 | 53.3 | 41.0 | 33.7 | 50.3 | 32.1 | 31.6 |
| Incr Delay (d2), s/veh | 14.4 | 28.8 | 0.6 | 0.0 | 0.3 | 0.6 | 6.3 | 33.5 | 2.0 | 0.4 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.4 | 21.2 | 1.4 | 1.1 | 3.4 | 3.7 | 3.9 | 21.6 | 6.3 | 2.2 | 5.4 | 4.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 67.9 | 69.5 | 49.8 | 17.6 | 6.8 | 7.1 | 59.5 | 74.6 | 35.7 | 50.7 | 32.6 | 32.7 |
| LnGrp LOS | E | F | D | B | A | A | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1472 | | | 1299 | | | 1647 | | | 721 | |
| Approach Delay, s/veh | | 68.3 | | | 8.1 | | | 66.4 | | | 34.6 | |
| Approach LOS | | E | | | A | | | E | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 92.5 | 16.3 | 44.0 | 63.5 | 44.4 | 16.0 | 44.3 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.8 | * 38 | * 11 | * 38 | * 11 | * 39 | 13.0 | * 36 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.6 | 11.9 | 2.8 | 39.9 | 4.7 | 40.6 | 10.2 | 14.3 | | | | |
| Green Ext Time (p_c), s | 0.2 | 15.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 6.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | | 47.7 | | | | | | | |
| HCM 6th LOS | | | | | D | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 156 | 533 | 352 | 54 | 863 | 416 | 389 | 771 | 282 | 841 | 373 |
| v/c Ratio | 0.78 | 0.49 | 0.44 | 0.33 | 0.94 | 0.60 | 0.91 | 0.71 | 0.57 | 0.72 | 0.54 |
| Control Delay | 77.2 | 36.6 | 9.5 | 56.9 | 61.8 | 16.3 | 90.3 | 38.3 | 53.2 | 39.9 | 12.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 77.2 | 36.6 | 9.5 | 56.9 | 61.8 | 16.3 | 90.3 | 38.3 | 53.2 | 39.9 | 12.1 |
| Queue Length 50th (ft) | 118 | 180 | 59 | 40 | 345 | 109 | 144 | 212 | 105 | 305 | 55 |
| Queue Length 95th (ft) | #212 | 238 | 132 | 82 | #470 | 187 | m#224 | m251 | 154 | 382 | 151 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 221 | 1082 | 807 | 221 | 920 | 695 | 431 | 1107 | 495 | 1169 | 691 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 0.49 | 0.44 | 0.24 | 0.94 | 0.60 | 0.90 | 0.70 | 0.57 | 0.72 | 0.54 |

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

11/12/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 148 | 506 | 334 | 51 | 820 | 395 | 370 | 692 | 41 | 268 | 799 | 354 |
| Future Volume (veh/h) | 148 | 506 | 334 | 51 | 820 | 395 | 370 | 692 | 41 | 268 | 799 | 354 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 156 | 533 | 352 | 54 | 863 | 416 | 389 | 728 | 0 | 282 | 841 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 183 | 1014 | 644 | 136 | 921 | 708 | 435 | 932 | | 679 | 1210 | |
| Arrive On Green | 0.10 | 0.29 | 0.29 | 0.08 | 0.26 | 0.26 | 0.13 | 0.26 | 0.00 | 0.20 | 0.34 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1558 | 1781 | 3554 | 1531 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 156 | 533 | 352 | 54 | 863 | 416 | 389 | 728 | 0 | 282 | 841 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1558 | 1781 | 1777 | 1531 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 10.3 | 15.1 | 20.6 | 3.5 | 28.5 | 6.1 | 13.3 | 22.8 | 0.0 | 8.6 | 24.5 | 0.0 |
| Cycle Q Clear(g_c), s | 10.3 | 15.1 | 20.6 | 3.5 | 28.5 | 6.1 | 13.3 | 22.8 | 0.0 | 8.6 | 24.5 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 183 | 1014 | 644 | 136 | 921 | 708 | 435 | 932 | | 679 | 1210 | |
| V/C Ratio(X) | 0.85 | 0.53 | 0.55 | 0.40 | 0.94 | 0.59 | 0.89 | 0.78 | | 0.42 | 0.69 | |
| Avail Cap(c_a), veh/h | 223 | 1014 | 644 | 223 | 924 | 710 | 435 | 1102 | | 679 | 1210 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.9 | 36.0 | 26.9 | 52.8 | 43.5 | 9.4 | 51.7 | 41.1 | 0.0 | 42.2 | 34.2 | 0.0 |
| Incr Delay (d2), s/veh | 19.8 | 1.0 | 1.7 | 0.7 | 16.9 | 2.0 | 19.9 | 6.5 | 0.0 | 0.2 | 3.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 6.7 | 7.9 | 1.6 | 14.6 | 4.6 | 7.0 | 10.8 | 0.0 | 3.7 | 11.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 72.7 | 37.0 | 28.6 | 53.5 | 60.4 | 11.4 | 71.6 | 47.5 | 0.0 | 42.3 | 37.5 | 0.0 |
| LnGrp LOS | E | D | C | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1041 | | | 1333 | | | 1117 | A | | 1123 | A |
| Approach Delay, s/veh | | 39.5 | | | 44.8 | | | 55.9 | | | 38.7 | |
| Approach LOS | | D | | | D | | | E | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 29.5 | 37.3 | 13.2 | 40.0 | 20.0 | 46.8 | 16.3 | 36.9 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 15.7 | * 37 | 15.0 | 31.2 | 15.1 | * 38 | 15.0 | 31.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.6 | 24.8 | 5.5 | 22.6 | 15.3 | 26.5 | 12.3 | 30.5 | | | | |
| Green Ext Time (p_c), s | 0.3 | 6.2 | 0.0 | 5.0 | 0.0 | 6.7 | 0.1 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 44.8 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
AM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,513 | 1,345 | 88.9% | 12.3 | 4.7 | B |
| | Right Turn | 64 | 57 | 89.5% | 9.1 | 4.5 | A |
| | Subtotal | 1,577 | 1,402 | 88.9% | 12.1 | 4.7 | B |
| SB | Left Turn | 105 | 99 | 93.8% | 44.3 | 9.2 | D |
| | Through | 405 | 401 | 99.1% | 11.4 | 4.0 | B |
| | Right Turn | 5 | 5 | 108.0% | 12.2 | 15.0 | B |
| | Subtotal | 515 | 505 | 98.1% | 17.8 | 4.0 | B |
| EB | Left Turn | 8 | 6 | 71.3% | 31.0 | 35.6 | C |
| | Through | 4 | 4 | 90.0% | 27.5 | 28.2 | C |
| | Right Turn | 6 | 7 | 111.7% | 5.0 | 11.5 | A |
| | Subtotal | 18 | 16 | 88.9% | 26.3 | 27.8 | C |
| WB | Left Turn | 26 | 24 | 90.4% | 41.6 | 13.3 | D |
| | Through | 1 | 1 | 70.0% | 0.1 | 0.3 | A |
| | Right Turn | 296 | 287 | 96.9% | 10.8 | 1.7 | B |
| | Subtotal | 323 | 311 | 96.3% | 13.4 | 0.7 | B |
| Total | | 2,433 | 2,235 | 91.8% | 13.8 | 3.6 | B |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 26 | 22 | 83.8% | 25.4 | 11.7 | C |
| | Through | 1,299 | 1,167 | 89.8% | 11.9 | 5.8 | B |
| | Right Turn | 18 | 17 | 95.0% | 6.7 | 6.5 | A |
| | Subtotal | 1,343 | 1,206 | 89.8% | 12.1 | 5.7 | B |
| SB | Left Turn | 58 | 56 | 96.4% | 57.2 | 39.9 | E |
| | Through | 1,008 | 958 | 95.0% | 59.8 | 40.3 | E |
| | Right Turn | 275 | 264 | 95.9% | 20.0 | 13.9 | B |
| | Subtotal | 1,341 | 1,277 | 95.2% | 51.5 | 34.6 | D |
| EB | Left Turn | 148 | 141 | 95.0% | 42.6 | 4.1 | D |
| | Through | 21 | 21 | 101.9% | 44.1 | 16.5 | D |
| | Right Turn | 35 | 33 | 94.0% | 31.6 | 19.1 | C |
| | Subtotal | 204 | 195 | 95.5% | 40.7 | 5.4 | D |
| WB | Left Turn | 12 | 11 | 93.3% | 41.5 | 20.8 | D |
| | Through | 21 | 23 | 110.0% | 49.4 | 11.1 | D |
| | Right Turn | 26 | 26 | 100.4% | 19.9 | 10.1 | B |
| | Subtotal | 59 | 60 | 102.4% | 34.4 | 9.2 | C |
| Total | | 2,947 | 2,738 | 92.9% | 32.4 | 17.3 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 12 | 10 | 80.8% | 52.4 | 27.9 | D |
| | Through | 1,528 | 1,356 | 88.7% | 3.6 | 1.6 | A |
| | Right Turn | 36 | 33 | 90.3% | 2.2 | 1.8 | A |
| | Subtotal | 1,576 | 1,398 | 88.7% | 4.0 | 1.6 | A |
| SB | Left Turn | 12 | 12 | 95.8% | 53.1 | 15.1 | D |
| | Through | 408 | 407 | 99.7% | 5.4 | 1.1 | A |
| | Right Turn | 17 | 17 | 100.6% | 1.9 | 1.2 | A |
| | Subtotal | 437 | 435 | 99.6% | 6.9 | 1.6 | A |
| EB | Left Turn | 39 | 39 | 99.0% | 48.5 | 20.4 | D |
| | Through | 2 | 2 | 120.0% | 34.6 | 37.3 | C |
| | Right Turn | 6 | 7 | 116.7% | 7.4 | 9.7 | A |
| | Subtotal | 47 | 48 | 102.1% | 43.6 | 18.5 | D |
| WB | Left Turn | 15 | 14 | 95.3% | 63.3 | 21.0 | E |
| | Through | 2 | 2 | 90.0% | 12.3 | 28.3 | B |
| | Right Turn | 10 | 9 | 86.0% | 8.0 | 10.6 | A |
| | Subtotal | 27 | 25 | 91.5% | 45.3 | 17.5 | D |
| Total | | 2,087 | 1,906 | 91.3% | 6.4 | 1.8 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,458 | 1,284 | 88.0% | 4.7 | 0.7 | A |
| | Right Turn | 1,343 | 1,205 | 89.7% | 4.1 | 0.4 | A |
| | Subtotal | 2,801 | 2,489 | 88.9% | 4.4 | 0.5 | A |
| SB | Left Turn | | | | | | |
| | Through | 466 | 466 | 100.0% | 35.8 | 8.3 | D |
| | Right Turn | 3 | 3 | 86.7% | 14.9 | 22.8 | B |
| | Subtotal | 469 | 469 | 99.9% | 35.7 | 8.1 | D |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,036 | 975 | 94.1% | 96.0 | 31.0 | F |
| | Through | 1 | 2 | 160.0% | 36.5 | 65.0 | D |
| | Right Turn | 18 | 16 | 91.1% | 75.2 | 30.9 | E |
| | Subtotal | 1,055 | 993 | 94.1% | 95.8 | 30.9 | F |
| Total | | 4,325 | 3,950 | 91.3% | 32.4 | 5.6 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
AM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 162 | 136 | 83.6% | 182.7 | 34.2 | F |
| | Through | 2,426 | 2,132 | 87.9% | 90.8 | 17.2 | F |
| | Right Turn | 40 | 35 | 88.3% | 89.6 | 22.6 | F |
| | Subtotal | 2,628 | 2,302 | 87.6% | 96.9 | 16.8 | F |
| SB | Left Turn | 75 | 70 | 92.9% | 37.4 | 14.2 | D |
| | Through | 1,207 | 1,158 | 95.9% | 14.4 | 1.8 | B |
| | Right Turn | 220 | 212 | 96.5% | 9.5 | 1.0 | A |
| | Subtotal | 1,502 | 1,440 | 95.9% | 14.7 | 1.6 | B |
| EB | Left Turn | 175 | 158 | 90.1% | 209.4 | 152.7 | F |
| | Through | 176 | 169 | 96.1% | 184.5 | 147.9 | F |
| | Right Turn | 68 | 62 | 90.9% | 156.4 | 147.5 | F |
| | Subtotal | 419 | 389 | 92.8% | 190.3 | 150.2 | F |
| WB | Left Turn | 83 | 79 | 95.2% | 58.1 | 25.6 | E |
| | Through | 174 | 176 | 101.0% | 50.6 | 20.9 | D |
| | Right Turn | 200 | 199 | 99.5% | 16.6 | 5.7 | B |
| | Subtotal | 457 | 454 | 99.3% | 37.1 | 14.8 | D |
| Total | | 5,006 | 4,585 | 91.6% | 70.8 | 9.0 | E |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 23 | 21 | 90.0% | 3.3 | 1.0 | A |
| Subtotal | | 23 | 21 | 90.0% | 3.3 | 1.0 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| Subtotal | | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 181 | 173 | 95.7% | 4.4 | 2.7 | A |
| | Right Turn | 10 | 9 | 92.0% | 0.0 | 0.1 | A |
| Subtotal | | 191 | 183 | 95.5% | 4.1 | 2.6 | A |
| WB | Left Turn | 35 | 31 | 88.3% | 1.9 | 0.7 | A |
| | Through | 287 | 279 | 97.2% | 0.4 | 0.1 | A |
| | Right Turn | | | | | | |
| Subtotal | | 322 | 310 | 96.2% | 0.5 | 0.1 | A |
| Total | | 536 | 513 | 95.7% | 2.0 | 1.0 | A |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
AM Peak Hour

Intersection 42

Residential Driveway/Machado Rd

Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 21 | 20 | 93.8% | 5.5 | 1.2 | A |
| | Through | | | | | | |
| | Right Turn | 31 | 33 | 106.5% | 2.9 | 0.6 | A |
| | Subtotal | 52 | 53 | 101.3% | 3.7 | 0.7 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 36 | 35 | 96.1% | 3.7 | 1.4 | A |
| | Subtotal | 36 | 35 | 96.1% | 3.7 | 1.4 | A |
| EB | Left Turn | 15 | 12 | 81.3% | 2.4 | 1.3 | A |
| | Through | 150 | 138 | 92.3% | 2.0 | 0.3 | A |
| | Right Turn | 8 | 9 | 110.0% | 1.1 | 0.7 | A |
| | Subtotal | 173 | 159 | 92.1% | 2.0 | 0.3 | A |
| WB | Left Turn | 11 | 10 | 90.0% | 1.3 | 0.5 | A |
| | Through | 266 | 256 | 96.3% | 0.2 | 0.1 | A |
| | Right Turn | 10 | 12 | 120.0% | 0.0 | 0.0 | A |
| | Subtotal | 287 | 278 | 96.9% | 0.3 | 0.1 | A |
| Total | | 548 | 525 | 95.9% | 1.5 | 0.3 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 3 | 25 | 9 | 50 | 17 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 375 | 125 | 35 | 325 | 61 | 375 | 50 | 5% | 0% |
| | Through/Right | 375 | 125 | 33 | 325 | 51 | 375 | 26 | 0% | 0% |
| SB | Left Turn | 225 | 25 | 4 | 75 | 7 | 100 | 17 | 0% | 0% |
| | Through | 375 | 75 | 9 | 150 | 21 | 200 | 36 | 15% | 0% |
| | Right Turn | 50 | 25 | 2 | 25 | 7 | 50 | 10 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 3 | 50 | 7 | 50 | 11 | 0% | 0% |
| | Right Turn | 200 | 25 | 5 | 50 | 13 | 75 | 22 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 100 | 4 | 150 | 6 | 150 | 9 | 0% | 14% |
| | Through/Right | 125 | 50 | 7 | 100 | 12 | 100 | 22 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 6 | 75 | 38 | 175 | 121 | 0% | 0% |
| | Through | 475 | 100 | 30 | 275 | 83 | 475 | 130 | 3% | 1% |
| | Through/Right | 475 | 100 | 33 | 300 | 87 | 475 | 123 | 0% | 1% |
| SB | Left Turn | 200 | 75 | 20 | 175 | 54 | 250 | 47 | 0% | 0% |
| | Through | 750 | 375 | 107 | 700 | 220 | 725 | 200 | 22% | 4% |
| | Right Turn | 375 | 175 | 79 | 425 | 186 | 400 | 138 | 0% | 0% |
| WB | Left Turn | 150 | 25 | 4 | 50 | 10 | 75 | 13 | 0% | 0% |
| | Through/Right | 150 | 50 | 8 | 100 | 11 | 125 | 18 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 6 | 100 | 16 | 125 | 32 | 14% | 0% |
| | Right Turn | 75 | 25 | 3 | 50 | 11 | 50 | 23 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 3 | 50 | 8 | 50 | 10 | 0% | 0% |
| | Through | 125 | 25 | 9 | 100 | 34 | 150 | 67 | 1% | 1% |
| | Through/Right | 125 | 50 | 10 | 100 | 27 | 150 | 49 | 0% | 1% |
| SB | Left Turn | 125 | 25 | 3 | 50 | 7 | 75 | 15 | 0% | 0% |
| | Through | 375 | 50 | 7 | 125 | 17 | 175 | 52 | 2% | 0% |
| | Right Turn | 125 | 25 | 3 | 25 | 15 | 50 | 38 | 0% | 0% |
| WB | Left Turn | 200 | 25 | 5 | 50 | 10 | 75 | 10 | 0% | 0% |
| | Through/Right | 200 | 25 | 4 | 50 | 10 | 50 | 19 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 5 | 100 | 10 | 100 | 23 | 0% | 0% |
| | Right Turn | 225 | 25 | 3 | 25 | 17 | 50 | 39 | 0% | 0% |
| SB | Through | 175 | 125 | 11 | 200 | 17 | 225 | 29 | 0% | 1% |
| | Through/Right | 175 | 100 | 12 | 175 | 17 | 200 | 28 | 0% | 1% |
| WB | Left Turn | 475 | 425 | 52 | 550 | 53 | 500 | 15 | 41% | 19% |
| | Shared | 300 | 325 | 22 | 425 | 16 | 375 | 0 | 24% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 125 | 8 | 175 | 7 | 150 | 0 | 18% | 18% |
| | Through | 150 | 225 | 13 | 275 | 13 | 250 | 6 | 53% | 53% |
| | Right Turn | 50 | 50 | 5 | 75 | 6 | 75 | 1 | 3% | 0% |
| NB | Left Turn | 275 | 200 | 18 | 300 | 14 | 250 | 0 | 7% | 7% |
| | Through | 275 | 325 | 5 | 375 | 20 | 375 | 14 | 45% | 46% |
| | Through/Right | 250 | 250 | 4 | 275 | 14 | 275 | 0 | 22% | 7% |
| SB | Left Turn | 175 | 50 | 9 | 125 | 17 | 175 | 26 | 0% | 0% |
| | Through | 225 | 200 | 11 | 300 | 19 | 300 | 18 | 4% | 4% |
| | Through/Right | 225 | 150 | 15 | 250 | 22 | 275 | 26 | 0% | 1% |
| WB | Left Turn | 100 | 75 | 6 | 150 | 10 | 150 | 0 | 11% | 0% |
| | Through | 325 | 150 | 19 | 300 | 50 | 350 | 49 | 26% | 3% |
| | Through/Right | 325 | 100 | 12 | 175 | 32 | 250 | 78 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Existing + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 25 | 5 | 75 | 14 | 125 | 31 | 0% | 0% |
| | Through/Right | 200 | 25 | 1 | 25 | 6 | 25 | 15 | 0% | 0% |
| NB | Right Turn | 225 | 25 | 3 | 50 | 3 | 50 | 10 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 3 | 50 | 7 | 50 | 11 | 0% | 0% |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Existing + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 1 | 25 | 5 | 50 | 9 | 0% | 0% |
| NB | Shared | 125 | 50 | 4 | 75 | 5 | 75 | 11 | 0% | 0% |
| SB | Right Turn | 100 | 50 | 1 | 75 | 5 | 75 | 14 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 1 | 25 | 6 | 25 | 12 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl

11/12/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|------|------|------|------|
| Lane Group Flow (vph) | 554 | 251 | 115 | 829 | 36 | 1753 | 64 | 803 | 566 |
| v/c Ratio | 0.83 | 0.53 | 0.12 | 1.27dr | 0.32 | 0.88 | 0.47 | 0.39 | 0.49 |
| Control Delay | 71.9 | 66.0 | 45.5 | 51.8 | 81.1 | 50.2 | 83.3 | 34.5 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.7 | 0.0 | 0.0 | 0.0 |
| Total Delay | 71.9 | 66.0 | 45.5 | 51.8 | 81.1 | 78.0 | 83.3 | 34.5 | 6.1 |
| Queue Length 50th (ft) | 280 | 131 | 44 | 246 | 36 | 619 | 64 | 216 | 70 |
| Queue Length 95th (ft) | #408 | 169 | 86 | 307 | 81 | #841 | 126 | 293 | 191 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 726 | 1389 | 924 | 1407 | 176 | 2001 | 176 | 2067 | 1177 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 338 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.76 | 0.18 | 0.12 | 0.59 | 0.20 | 1.05 | 0.36 | 0.39 | 0.48 |

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↑↔ | | ↔↔ | ↑↑↔ | | ↔ | ↑↑↔ | | ↔ | ↑↑↑ | ↔ |
| Traffic Volume (veh/h) | 526 | 228 | 10 | 109 | 242 | 545 | 34 | 1585 | 81 | 61 | 763 | 538 |
| Future Volume (veh/h) | 526 | 228 | 10 | 109 | 242 | 545 | 34 | 1585 | 81 | 61 | 763 | 538 |
| 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 | 554 | 240 | 0 | 115 | 255 | 0 | 36 | 1668 | 85 | 64 | 803 | 566 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 642 | 443 | | 605 | 636 | | 93 | 2087 | 106 | 131 | 2304 | 1010 |
| Arrive On Green | 0.19 | 0.12 | 0.00 | 0.18 | 0.12 | 0.00 | 0.05 | 0.42 | 0.42 | 0.07 | 0.45 | 0.45 |
| Sat Flow, veh/h | 3456 | 3647 | 0 | 3456 | 5274 | 0 | 1781 | 4975 | 253 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 554 | 240 | 0 | 115 | 255 | 0 | 36 | 1141 | 612 | 64 | 803 | 566 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1825 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 18.7 | 7.6 | 0.0 | 3.4 | 5.5 | 0.0 | 2.4 | 35.2 | 35.3 | 4.2 | 12.3 | 24.3 |
| Cycle Q Clear(g_c), s | 18.7 | 7.6 | 0.0 | 3.4 | 5.5 | 0.0 | 2.4 | 35.2 | 35.3 | 4.2 | 12.3 | 24.3 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 642 | 443 | | 605 | 636 | | 93 | 1428 | 765 | 131 | 2304 | 1010 |
| V/C Ratio(X) | 0.86 | 0.54 | | 0.19 | 0.40 | | 0.39 | 0.80 | 0.80 | 0.49 | 0.35 | 0.56 |
| Avail Cap(c_a), veh/h | 918 | 1762 | | 605 | 1824 | | 223 | 1691 | 906 | 223 | 2536 | 1082 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.5 | 49.5 | 0.0 | 42.4 | 48.6 | 0.0 | 55.2 | 30.5 | 30.5 | 53.6 | 21.5 | 12.3 |
| Incr Delay (d2), s/veh | 6.1 | 1.0 | 0.0 | 0.2 | 0.4 | 0.0 | 2.6 | 2.4 | 4.4 | 2.8 | 0.1 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.6 | 3.5 | 0.0 | 1.5 | 2.4 | 0.0 | 1.1 | 14.4 | 15.9 | 2.0 | 4.9 | 8.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.6 | 50.5 | 0.0 | 42.5 | 49.0 | 0.0 | 57.8 | 32.9 | 34.9 | 56.5 | 21.6 | 12.9 |
| LnGrp LOS | D | D | | D | D | | E | C | C | E | C | B |
| Approach Vol, veh/h | | 794 | A | | 370 | A | | 1789 | | | 1433 | |
| Approach Delay, s/veh | | 52.7 | | | 47.0 | | | 34.1 | | | 19.7 | |
| Approach LOS | | D | | | D | | | C | | | B | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 60.5 | 27.4 | 21.3 | 15.0 | 56.7 | 27.4 | 21.3 | | | | |
| Change Period (Y+Rc), s | 4.9 | 6.2 | 6.3 | * 6.3 | 6.2 | * 6.2 | 5.0 | 6.3 | | | | |
| Max Green Setting (Gmax), s | 15.1 | 59.8 | 15.0 | * 60 | 15.1 | * 60 | 32.0 | 43.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 26.3 | 5.4 | 9.6 | 6.2 | 37.3 | 20.7 | 7.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | 0.2 | 1.7 | 0.1 | 13.2 | 1.7 | 1.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 33.8 |
| HCM 6th LOS | C |

Notes

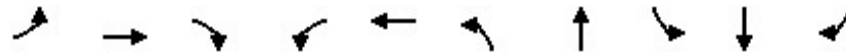
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 143 | 802 | 163 | 11 | 809 | 265 | 244 | 23 | 94 | 103 |
| v/c Ratio | 0.54 | 0.36 | 0.15 | 0.06 | 0.61 | 0.52 | 0.39 | 0.09 | 0.24 | 0.25 |
| Control Delay | 48.3 | 20.0 | 4.9 | 46.3 | 32.7 | 43.1 | 29.2 | 42.1 | 33.4 | 8.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.3 | 20.0 | 4.9 | 46.3 | 32.7 | 43.1 | 29.2 | 42.1 | 33.4 | 8.0 |
| Queue Length 50th (ft) | 74 | 95 | 11 | 6 | 141 | 72 | 98 | 11 | 47 | 0 |
| Queue Length 95th (ft) | #174 | 217 | 65 | 27 | 235 | 143 | 224 | 42 | 96 | 41 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 288 | 3300 | 1082 | 288 | 3263 | 556 | 1184 | 294 | 1223 | 1074 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.24 | 0.15 | 0.04 | 0.25 | 0.48 | 0.21 | 0.08 | 0.08 | 0.10 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↗ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 136 | 762 | 155 | 10 | 709 | 60 | 252 | 208 | 24 | 22 | 89 | 98 |
| Future Volume (veh/h) | 136 | 762 | 155 | 10 | 709 | 60 | 252 | 208 | 24 | 22 | 89 | 98 |
| 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 | 143 | 802 | 163 | 11 | 746 | 63 | 265 | 219 | 0 | 23 | 94 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 1949 | 849 | 43 | 1469 | 123 | 532 | 510 | | 114 | 333 | |
| Arrive On Green | 0.10 | 0.38 | 0.38 | 0.02 | 0.31 | 0.31 | 0.15 | 0.27 | 0.00 | 0.06 | 0.18 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4799 | 403 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 143 | 802 | 163 | 11 | 528 | 281 | 265 | 219 | 0 | 23 | 94 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1798 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 6.6 | 9.7 | 4.5 | 0.5 | 10.7 | 10.8 | 5.9 | 8.1 | 0.0 | 1.0 | 3.7 | 0.0 |
| Cycle Q Clear(g_c), s | 6.6 | 9.7 | 4.5 | 0.5 | 10.7 | 10.8 | 5.9 | 8.1 | 0.0 | 1.0 | 3.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.22 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 178 | 1949 | 849 | 43 | 1042 | 550 | 532 | 510 | | 114 | 333 | |
| V/C Ratio(X) | 0.80 | 0.41 | 0.19 | 0.25 | 0.51 | 0.51 | 0.50 | 0.43 | | 0.20 | 0.28 | |
| Avail Cap(c_a), veh/h | 317 | 3617 | 1367 | 317 | 2411 | 1273 | 611 | 1316 | | 323 | 1340 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 37.1 | 19.1 | 10.1 | 40.4 | 24.0 | 24.0 | 32.7 | 25.3 | 0.0 | 37.4 | 30.0 | 0.0 |
| Incr Delay (d2), s/veh | 3.2 | 0.3 | 0.2 | 1.1 | 0.8 | 1.6 | 0.3 | 1.2 | 0.0 | 0.3 | 1.0 | 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(50%),veh/ln | 3.0 | 3.7 | 1.5 | 0.2 | 4.3 | 4.7 | 2.4 | 3.7 | 0.0 | 0.5 | 1.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.4 | 19.4 | 10.4 | 41.5 | 24.8 | 25.6 | 32.9 | 26.5 | 0.0 | 37.7 | 31.0 | 0.0 |
| LnGrp LOS | D | B | B | D | C | C | C | C | | D | C | |
| Approach Vol, veh/h | | 1108 | | | 820 | | | 484 | A | | 117 | A |
| Approach Delay, s/veh | | 20.8 | | | 25.3 | | | 30.0 | | | 32.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.4 | 32.1 | 18.1 | 21.7 | 6.0 | 38.5 | 10.1 | 29.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 59.7 | * 15 | * 60 | 15.0 | 59.7 | * 15 | 59.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.6 | 12.8 | 7.9 | 5.7 | 2.5 | 11.7 | 3.0 | 10.1 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.0 | 0.3 | 1.1 | 0.0 | 15.6 | 0.0 | 2.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 24.6 |
| HCM 6th LOS | C |

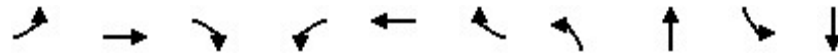
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 28 | 173 | 66 | 93 | 332 | 317 | 103 | 1498 | 178 | 739 |
| v/c Ratio | 0.17 | 0.32 | 0.11 | 0.30 | 0.46 | 0.56 | 0.16 | 0.61 | 0.60 | 0.38 |
| Control Delay | 53.1 | 45.6 | 2.9 | 53.2 | 44.6 | 16.7 | 40.1 | 25.1 | 61.4 | 29.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.1 | 45.6 | 2.9 | 53.2 | 44.6 | 16.7 | 40.1 | 25.1 | 61.4 | 29.2 |
| Queue Length 50th (ft) | 20 | 65 | 0 | 35 | 132 | 86 | 34 | 286 | 69 | 144 |
| Queue Length 95th (ft) | 51 | 85 | 16 | 61 | 151 | 118 | 58 | 447 | 106 | 234 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 162 | 1002 | 590 | 314 | 973 | 575 | 649 | 2462 | 326 | 2088 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.17 | 0.11 | 0.30 | 0.34 | 0.55 | 0.16 | 0.61 | 0.55 | 0.35 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | ↗ | ↘↗ | ↑↑↗ | | ↘↗ | ↑↑↗ | |
| Traffic Volume (veh/h) | 27 | 164 | 63 | 88 | 315 | 301 | 98 | 1391 | 32 | 169 | 688 | 14 |
| Future Volume (veh/h) | 27 | 164 | 63 | 88 | 315 | 301 | 98 | 1391 | 32 | 169 | 688 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.95 | 1.00 | | 0.95 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 28 | 173 | 66 | 93 | 332 | 317 | 103 | 1464 | 34 | 178 | 724 | 15 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 701 | 829 | 275 | 825 | 700 | 1159 | 1592 | 37 | 758 | 991 | 20 |
| Arrive On Green | 0.06 | 0.20 | 0.20 | 0.08 | 0.23 | 0.23 | 0.34 | 0.31 | 0.31 | 0.22 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1781 | 3554 | 1510 | 3456 | 3554 | 1517 | 3456 | 5127 | 119 | 3456 | 5142 | 106 |
| Grp Volume(v), veh/h | 28 | 173 | 66 | 93 | 332 | 317 | 103 | 972 | 526 | 178 | 479 | 260 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1510 | 1728 | 1777 | 1517 | 1728 | 1702 | 1842 | 1728 | 1702 | 1844 |
| Q Serve(g_s), s | 1.8 | 4.9 | 0.0 | 3.1 | 9.5 | 3.0 | 2.5 | 33.1 | 33.1 | 5.1 | 15.9 | 15.9 |
| Cycle Q Clear(g_c), s | 1.8 | 4.9 | 0.0 | 3.1 | 9.5 | 3.0 | 2.5 | 33.1 | 33.1 | 5.1 | 15.9 | 15.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 99 | 701 | 829 | 275 | 825 | 700 | 1159 | 1057 | 572 | 758 | 656 | 355 |
| V/C Ratio(X) | 0.28 | 0.25 | 0.08 | 0.34 | 0.40 | 0.45 | 0.09 | 0.92 | 0.92 | 0.23 | 0.73 | 0.73 |
| Avail Cap(c_a), veh/h | 163 | 1007 | 959 | 288 | 977 | 765 | 1159 | 1211 | 656 | 758 | 1279 | 693 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | 0.94 |
| Uniform Delay (d), s/veh | 54.4 | 40.6 | 13.7 | 52.2 | 39.0 | 10.3 | 27.3 | 39.9 | 39.9 | 38.6 | 45.5 | 45.5 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.0 | 14.0 | 22.3 | 0.1 | 6.6 | 11.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.2 | 0.9 | 1.3 | 4.2 | 3.6 | 1.0 | 15.7 | 18.3 | 2.2 | 7.3 | 8.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.9 | 40.7 | 13.7 | 52.5 | 39.1 | 10.5 | 27.3 | 53.9 | 62.2 | 38.6 | 52.1 | 57.4 |
| LnGrp LOS | D | D | B | D | D | B | C | D | E | D | D | E |
| Approach Vol, veh/h | | 267 | | | 742 | | | 1601 | | | 917 | |
| Approach Delay, s/veh | | 35.5 | | | 28.6 | | | 54.9 | | | 51.0 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 45.8 | 29.1 | 15.4 | 29.6 | 31.9 | 43.1 | 11.3 | 33.8 | | | | |
| Change Period (Y+Rc), s | * 5.6 | * 6 | * 5.9 | * 5.9 | 5.6 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | * 9 | * 45 | * 10 | * 34 | 11.4 | * 43 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 17.9 | 5.1 | 6.9 | 7.1 | 35.1 | 3.8 | 11.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.0 | 0.3 | 0.0 | 2.2 | 0.0 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 46.9 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

11/12/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 331 | 287 | 65 | 1509 | 179 | 31 | 466 | 97 |
| v/c Ratio | 0.76 | 0.67 | 0.12 | 0.69 | 0.18 | 0.26 | 0.21 | 0.10 |
| Control Delay | 51.7 | 46.6 | 20.2 | 36.7 | 16.8 | 16.2 | 10.1 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.7 | 46.6 | 20.2 | 36.7 | 16.8 | 16.2 | 10.1 | 1.6 |
| Queue Length 50th (ft) | 222 | 186 | 37 | 547 | 79 | 11 | 83 | 0 |
| Queue Length 95th (ft) | #436 | #359 | m85 | 688 | 172 | 27 | 85 | 17 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 433 | 427 | 599 | 2397 | 1095 | 128 | 2397 | 1103 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.76 | 0.67 | 0.11 | 0.63 | 0.16 | 0.24 | 0.19 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 62 | 202 | 50 | 53 | 182 | 37 | 62 | 1434 | 170 | 29 | 443 | 92 |
| Future Volume (veh/h) | 62 | 202 | 50 | 53 | 182 | 37 | 62 | 1434 | 170 | 29 | 443 | 92 |
| 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 | 65 | 213 | 53 | 56 | 192 | 39 | 65 | 1509 | 179 | 31 | 466 | 97 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 84 | 221 | 51 | 79 | 225 | 42 | 593 | 2408 | 1074 | 188 | 2408 | 1074 |
| Arrive On Green | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| Sat Flow, veh/h | 210 | 954 | 222 | 188 | 973 | 183 | 847 | 3554 | 1585 | 292 | 3554 | 1585 |
| Grp Volume(v), veh/h | 331 | 0 | 0 | 287 | 0 | 0 | 65 | 1509 | 179 | 31 | 466 | 97 |
| Grp Sat Flow(s),veh/h/ln | 1386 | 0 | 0 | 1343 | 0 | 0 | 847 | 1777 | 1585 | 292 | 1777 | 1585 |
| Q Serve(g_s), s | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 28.6 | 4.9 | 8.0 | 5.8 | 2.5 |
| Cycle Q Clear(g_c), s | 27.8 | 0.0 | 0.0 | 24.7 | 0.0 | 0.0 | 9.5 | 28.6 | 4.9 | 36.6 | 5.8 | 2.5 |
| Prop In Lane | 0.20 | | 0.16 | 0.20 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 357 | 0 | 0 | 347 | 0 | 0 | 593 | 2408 | 1074 | 188 | 2408 | 1074 |
| V/C Ratio(X) | 0.93 | 0.00 | 0.00 | 0.83 | 0.00 | 0.00 | 0.11 | 0.63 | 0.17 | 0.16 | 0.19 | 0.09 |
| Avail Cap(c_a), veh/h | 357 | 0 | 0 | 347 | 0 | 0 | 593 | 2408 | 1074 | 188 | 2408 | 1074 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.1 | 0.0 | 0.0 | 43.9 | 0.0 | 0.0 | 9.0 | 10.8 | 7.0 | 21.1 | 7.2 | 6.6 |
| Incr Delay (d2), s/veh | 29.4 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.4 | 1.2 | 0.3 | 0.9 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.8 | 0.0 | 0.0 | 9.6 | 0.0 | 0.0 | 0.7 | 10.1 | 1.6 | 0.6 | 2.0 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 75.4 | 0.0 | 0.0 | 58.2 | 0.0 | 0.0 | 9.3 | 12.1 | 7.4 | 22.0 | 7.3 | 6.7 |
| LnGrp LOS | E | A | A | E | A | A | A | B | A | C | A | A |
| Approach Vol, veh/h | | 331 | | | 287 | | | 1753 | | | | 594 |
| Approach Delay, s/veh | | 75.4 | | | 58.2 | | | 11.5 | | | | 7.9 |
| Approach LOS | | E | | | E | | | B | | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 87.0 | | 33.0 | | 87.0 | | 33.0 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 81.3 | | * 28 | | 81.3 | | * 28 | | | | |
| Max Q Clear Time (g_c+I1), s | | 30.6 | | 29.8 | | 38.6 | | 26.7 | | | | |
| Green Ext Time (p_c), s | | 35.4 | | 0.0 | | 8.7 | | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.5 |
| HCM 6th LOS | C |

Notes

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

Existing Plus Project PM

Queues

1: Culver Blvd & Sepulveda Blvd

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 224 | 1139 | 98 | 231 | 1227 | 124 | 718 | 172 | 49 | 1059 | 261 |
| v/c Ratio | 0.60 | 0.98 | 0.16 | 0.70 | 0.77 | 0.39 | 0.64 | 0.28 | 0.15 | 0.97 | 0.45 |
| Control Delay | 57.9 | 62.9 | 0.5 | 65.0 | 41.2 | 55.4 | 39.0 | 5.6 | 32.2 | 62.9 | 15.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.9 | 62.9 | 0.5 | 65.0 | 41.2 | 55.4 | 39.0 | 5.6 | 32.2 | 62.9 | 15.0 |
| Queue Length 50th (ft) | 86 | 459 | 0 | 90 | 315 | 47 | 265 | 0 | 27 | 425 | 56 |
| Queue Length 95th (ft) | 128 | #611 | 0 | 134 | 372 | 79 | 321 | 49 | 56 | #571 | 133 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 389 | 1159 | 629 | 331 | 1585 | 314 | 1182 | 626 | 336 | 1088 | 580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.98 | 0.16 | 0.70 | 0.77 | 0.39 | 0.61 | 0.27 | 0.15 | 0.97 | 0.45 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/12/2020

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 217 | 1105 | 95 | 224 | 1124 | 66 | 120 | 696 | 167 | 48 | 1027 | 253 |
| Future Volume (veh/h) | 217 | 1105 | 95 | 224 | 1124 | 66 | 120 | 696 | 167 | 48 | 1027 | 253 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.95 | 0.98 | | 0.96 |
| 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 | 224 | 1139 | 98 | 231 | 1159 | 68 | 124 | 718 | 172 | 49 | 1059 | 261 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 317 | 1161 | 503 | 905 | 2504 | 147 | 312 | 958 | 408 | 314 | 1093 | 468 |
| Arrive On Green | 0.09 | 0.33 | 0.33 | 0.26 | 0.51 | 0.51 | 0.09 | 0.27 | 0.27 | 0.12 | 0.31 | 0.31 |
| Sat Flow, veh/h | 3456 | 3554 | 1539 | 3456 | 4925 | 289 | 3456 | 3554 | 1513 | 1781 | 3554 | 1522 |
| Grp Volume(v), veh/h | 224 | 1139 | 98 | 231 | 801 | 426 | 124 | 718 | 172 | 49 | 1059 | 261 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1539 | 1728 | 1702 | 1810 | 1728 | 1777 | 1513 | 1781 | 1777 | 1522 |
| Q Serve(g_s), s | 7.6 | 38.1 | 5.5 | 6.3 | 18.1 | 18.2 | 4.1 | 22.2 | 11.2 | 0.0 | 35.3 | 17.2 |
| Cycle Q Clear(g_c), s | 7.6 | 38.1 | 5.5 | 6.3 | 18.1 | 18.2 | 4.1 | 22.2 | 11.2 | 0.0 | 35.3 | 17.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 317 | 1161 | 503 | 905 | 1731 | 920 | 312 | 958 | 408 | 314 | 1093 | 468 |
| V/C Ratio(X) | 0.71 | 0.98 | 0.19 | 0.26 | 0.46 | 0.46 | 0.40 | 0.75 | 0.42 | 0.16 | 0.97 | 0.56 |
| Avail Cap(c_a), veh/h | 392 | 1161 | 503 | 905 | 1731 | 920 | 317 | 1093 | 465 | 314 | 1093 | 468 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.9 | 40.0 | 28.6 | 35.0 | 19.0 | 19.0 | 51.5 | 40.1 | 36.1 | 43.1 | 41.0 | 34.7 |
| Incr Delay (d2), s/veh | 7.0 | 22.3 | 0.9 | 0.1 | 0.9 | 1.7 | 0.3 | 3.5 | 1.5 | 0.1 | 20.3 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.6 | 20.0 | 2.2 | 2.7 | 7.3 | 7.9 | 1.8 | 10.1 | 4.3 | 1.3 | 18.3 | 6.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.0 | 62.3 | 29.5 | 35.1 | 19.8 | 20.6 | 51.8 | 43.6 | 37.6 | 43.2 | 61.3 | 37.2 |
| LnGrp LOS | E | E | C | D | B | C | D | D | D | D | E | D |
| Approach Vol, veh/h | | 1461 | | | 1458 | | | 1014 | | | 1369 | |
| Approach Delay, s/veh | | 59.7 | | | 22.5 | | | 43.6 | | | 56.1 | |
| Approach LOS | | E | | | C | | | D | | | E | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 67.4 | 20.4 | 38.4 | 37.8 | 45.0 | 15.8 | 43.0 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 13.6 | * 37 | * 11 | * 37 | * 12 | * 39 | 11.0 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.6 | 20.2 | 2.0 | 24.2 | 8.3 | 40.1 | 6.1 | 37.3 | | | | |
| Green Ext Time (p_c), s | 0.5 | 11.8 | 0.0 | 7.1 | 0.1 | 0.0 | 0.1 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 45.5 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 144 | 780 | 289 | 48 | 610 | 587 | 314 | 930 | 367 | 601 | 185 |
| v/c Ratio | 0.74 | 0.78 | 0.39 | 0.30 | 0.73 | 0.91 | 0.79 | 0.76 | 0.82 | 0.47 | 0.27 |
| Control Delay | 73.9 | 46.3 | 8.9 | 56.2 | 47.4 | 40.4 | 53.4 | 46.5 | 66.3 | 32.0 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 73.9 | 46.3 | 8.9 | 56.2 | 47.4 | 40.4 | 53.4 | 46.5 | 66.3 | 32.0 | 5.3 |
| Queue Length 50th (ft) | 109 | 302 | 46 | 35 | 231 | 239 | 134 | 371 | 144 | 190 | 0 |
| Queue Length 95th (ft) | #188 | 362 | 102 | 75 | 287 | #396 | 182 | 468 | #217 | 259 | 52 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 221 | 995 | 751 | 221 | 920 | 648 | 431 | 1220 | 449 | 1288 | 680 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.78 | 0.38 | 0.22 | 0.66 | 0.91 | 0.73 | 0.76 | 0.82 | 0.47 | 0.27 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

2: Jefferson Blvd & Overland Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 140 | 757 | 280 | 47 | 592 | 569 | 305 | 860 | 42 | 356 | 583 | 179 |
| Future Volume (veh/h) | 140 | 757 | 280 | 47 | 592 | 569 | 305 | 860 | 42 | 356 | 583 | 179 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 144 | 780 | 289 | 48 | 610 | 587 | 314 | 887 | 0 | 367 | 601 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 171 | 952 | 581 | 130 | 871 | 679 | 371 | 1034 | | 653 | 1351 | |
| Arrive On Green | 0.10 | 0.27 | 0.27 | 0.07 | 0.25 | 0.25 | 0.11 | 0.29 | 0.00 | 0.19 | 0.38 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1533 | 1781 | 3554 | 1550 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 144 | 780 | 289 | 48 | 610 | 587 | 314 | 887 | 0 | 367 | 601 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1533 | 1781 | 1777 | 1550 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 9.5 | 24.7 | 17.4 | 3.1 | 18.8 | 10.8 | 10.7 | 28.3 | 0.0 | 11.6 | 15.1 | 0.0 |
| Cycle Q Clear(g_c), s | 9.5 | 24.7 | 17.4 | 3.1 | 18.8 | 10.8 | 10.7 | 28.3 | 0.0 | 11.6 | 15.1 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 171 | 952 | 581 | 130 | 871 | 679 | 371 | 1034 | | 653 | 1351 | |
| V/C Ratio(X) | 0.84 | 0.82 | 0.50 | 0.37 | 0.70 | 0.86 | 0.85 | 0.86 | | 0.56 | 0.44 | |
| Avail Cap(c_a), veh/h | 223 | 952 | 581 | 223 | 924 | 702 | 435 | 1102 | | 653 | 1351 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.4 | 41.2 | 28.9 | 53.0 | 41.3 | 13.0 | 52.6 | 40.2 | 0.0 | 44.2 | 27.8 | 0.0 |
| Incr Delay (d2), s/veh | 16.1 | 6.4 | 1.4 | 0.6 | 3.0 | 11.6 | 11.3 | 9.2 | 0.0 | 0.7 | 1.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.0 | 11.6 | 6.6 | 1.4 | 8.6 | 10.0 | 5.2 | 13.6 | 0.0 | 5.0 | 6.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 69.5 | 47.6 | 30.3 | 53.6 | 44.3 | 24.7 | 63.9 | 49.4 | 0.0 | 44.8 | 28.8 | 0.0 |
| LnGrp LOS | E | D | C | D | D | C | E | D | | D | C | |
| Approach Vol, veh/h | | 1213 | | | 1245 | | | 1201 | A | | 968 | A |
| Approach Delay, s/veh | | 46.1 | | | 35.4 | | | 53.2 | | | 34.9 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 28.6 | 40.7 | 12.8 | 37.9 | 17.8 | 51.5 | 15.5 | 35.2 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 15.7 | * 37 | 15.0 | 31.2 | 15.1 | * 38 | 15.0 | 31.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.6 | 30.3 | 5.1 | 26.7 | 12.7 | 17.1 | 11.5 | 20.8 | | | | |
| Green Ext Time (p_c), s | 0.2 | 4.6 | 0.0 | 3.4 | 0.2 | 7.1 | 0.1 | 7.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 42.7 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 4 | 4 | 102.5% | 39.0 | 39.6 | D |
| | Through | 783 | 761 | 97.2% | 15.0 | 3.7 | B |
| | Right Turn | 70 | 72 | 103.3% | 6.2 | 3.3 | A |
| | Subtotal | 857 | 838 | 97.7% | 14.5 | 3.5 | B |
| SB | Left Turn | 243 | 246 | 101.4% | 75.1 | 26.4 | E |
| | Through | 1,146 | 1,123 | 98.0% | 37.3 | 31.0 | D |
| | Right Turn | 4 | 5 | 112.5% | 27.7 | 27.1 | C |
| | Subtotal | 1,393 | 1,374 | 98.6% | 44.5 | 29.4 | D |
| EB | Left Turn | | | | | | |
| | Through | 5 | 4 | 82.0% | 47.5 | 47.8 | D |
| | Right Turn | 1 | 2 | 240.0% | 4.1 | 6.0 | A |
| | Subtotal | 6 | 7 | 108.3% | 40.1 | 37.6 | D |
| WB | Left Turn | 30 | 25 | 84.7% | 48.3 | 13.6 | D |
| | Through | 3 | 3 | 86.7% | 20.1 | 23.3 | C |
| | Right Turn | 236 | 229 | 97.2% | 9.0 | 1.6 | A |
| | Subtotal | 269 | 257 | 95.7% | 13.0 | 2.3 | B |
| Total | | 2,525 | 2,475 | 98.0% | 30.6 | 15.7 | C |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 37 | 34 | 93.0% | 16.7 | 6.5 | B |
| | Through | 1,102 | 1,067 | 96.8% | 16.6 | 4.1 | B |
| | Right Turn | 80 | 73 | 91.8% | 15.7 | 4.5 | B |
| | Subtotal | 1,219 | 1,174 | 96.3% | 16.6 | 3.9 | B |
| SB | Left Turn | 77 | 72 | 93.2% | 33.1 | 12.3 | C |
| | Through | 748 | 710 | 94.9% | 33.7 | 28.0 | C |
| | Right Turn | 212 | 198 | 93.2% | 6.0 | 3.6 | A |
| | Subtotal | 1,037 | 979 | 94.4% | 28.5 | 22.6 | C |
| EB | Left Turn | 212 | 215 | 101.2% | 26.2 | 3.2 | C |
| | Through | 92 | 94 | 102.5% | 28.7 | 7.2 | C |
| | Right Turn | 29 | 29 | 100.0% | 18.5 | 11.8 | B |
| | Subtotal | 333 | 338 | 101.4% | 26.0 | 2.4 | C |
| WB | Left Turn | 30 | 27 | 89.0% | 38.4 | 12.0 | D |
| | Through | 40 | 41 | 102.0% | 47.0 | 13.3 | D |
| | Right Turn | 1 | 2 | 190.0% | 7.5 | 20.3 | A |
| | Subtotal | 71 | 69 | 97.7% | 41.8 | 10.2 | D |
| Total | | 2,660 | 2,561 | 96.3% | 23.2 | 8.7 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 24 | 17 | 72.5% | 413.3 | 348.4 | F |
| | Through | 807 | 795 | 98.6% | 13.7 | 13.6 | B |
| | Right Turn | 56 | 53 | 94.1% | 6.0 | 6.5 | A |
| | Subtotal | 887 | 865 | 97.6% | 14.7 | 12.3 | B |
| SB | Left Turn | 30 | 29 | 97.7% | 83.6 | 26.9 | F |
| | Through | 1,077 | 1,051 | 97.6% | 40.5 | 23.6 | D |
| | Right Turn | 70 | 65 | 92.9% | 31.0 | 22.2 | C |
| | Subtotal | 1,177 | 1,145 | 97.3% | 40.9 | 23.1 | D |
| EB | Left Turn | 20 | 17 | 84.0% | 207.8 | 191.9 | F |
| | Through | 3 | 4 | 123.3% | 155.2 | 202.0 | F |
| | Right Turn | 10 | 10 | 95.0% | 95.6 | 124.1 | F |
| | Subtotal | 33 | 30 | 90.9% | 140.7 | 121.6 | F |
| WB | Left Turn | 40 | 35 | 87.0% | 352.4 | 323.2 | F |
| | Through | 4 | 3 | 85.0% | 172.4 | 274.2 | F |
| | Right Turn | 30 | 29 | 95.7% | 61.8 | 147.3 | E |
| | Subtotal | 74 | 67 | 90.4% | 148.8 | 149.0 | F |
| Total | | 2,171 | 2,108 | 97.1% | 33.5 | 19.0 | C |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 850 | 838 | 98.6% | 3.4 | 0.7 | A |
| | Right Turn | 1,219 | 1,177 | 96.5% | 3.3 | 0.4 | A |
| | Subtotal | 2,069 | 2,015 | 97.4% | 3.4 | 0.5 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,144 | 1,097 | 95.9% | 107.5 | 33.0 | F |
| | Right Turn | 13 | 11 | 86.2% | 86.6 | 42.5 | F |
| | Subtotal | 1,157 | 1,108 | 95.8% | 107.3 | 33.2 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 789 | 737 | 93.4% | 91.5 | 36.9 | F |
| | Through | 7 | 8 | 120.0% | 73.7 | 62.4 | E |
| | Right Turn | 11 | 10 | 94.5% | 83.2 | 43.2 | F |
| | Subtotal | 807 | 756 | 93.7% | 91.4 | 36.8 | F |
| Total | | 4,033 | 3,879 | 96.2% | 49.7 | 9.9 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
PM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 84 | 80 | 95.7% | 105.6 | 23.6 | F |
| | Through | 1,801 | 1,772 | 98.4% | 68.6 | 24.8 | E |
| | Right Turn | 56 | 55 | 98.4% | 73.6 | 27.1 | E |
| | Subtotal | 1,941 | 1,908 | 98.3% | 70.4 | 24.5 | E |
| SB | Left Turn | 120 | 116 | 96.4% | 59.0 | 16.4 | E |
| | Through | 1,672 | 1,588 | 95.0% | 29.8 | 4.2 | C |
| | Right Turn | 141 | 134 | 95.3% | 21.2 | 7.7 | C |
| | Subtotal | 1,933 | 1,838 | 95.1% | 30.9 | 4.2 | C |
| EB | Left Turn | 168 | 143 | 85.3% | 304.1 | 77.7 | F |
| | Through | 210 | 183 | 87.3% | 270.1 | 58.1 | F |
| | Right Turn | 222 | 192 | 86.4% | 241.9 | 49.3 | F |
| | Subtotal | 600 | 518 | 86.4% | 270.3 | 61.0 | F |
| WB | Left Turn | 58 | 54 | 93.4% | 104.8 | 54.0 | F |
| | Through | 143 | 145 | 101.7% | 54.4 | 28.2 | D |
| | Right Turn | 100 | 102 | 102.0% | 16.0 | 17.9 | B |
| | Subtotal | 301 | 302 | 100.2% | 52.7 | 25.2 | D |
| Total | | 4,775 | 4,566 | 95.6% | 76.4 | 9.8 | E |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 58 | 58 | 99.8% | 7.4 | 6.5 | A |
| Subtotal | | 58 | 58 | 99.8% | 7.4 | 6.5 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| Subtotal | | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 275 | 282 | 102.4% | 9.6 | 6.4 | A |
| | Right Turn | 7 | 6 | 88.6% | 1.2 | 2.7 | A |
| Subtotal | | 282 | 288 | 102.0% | 9.4 | 6.2 | A |
| WB | Left Turn | 62 | 61 | 98.4% | 5.6 | 4.1 | A |
| | Through | 227 | 212 | 93.2% | 0.5 | 0.1 | A |
| | Right Turn | | | | | | |
| Subtotal | | 289 | 273 | 94.3% | 1.8 | 1.0 | A |
| Total | | 629 | 618 | 98.3% | 5.9 | 3.3 | A |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Existing + Project
PM Peak Hour

Intersection 42

Residential Driveway/Machado Rd

Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 13 | 11 | 86.9% | 6.3 | 3.6 | A |
| | Through | | | | | | |
| | Right Turn | 20 | 20 | 102.0% | 4.8 | 2.5 | A |
| | Subtotal | 33 | 32 | 96.1% | 5.2 | 1.9 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 71 | 70 | 98.6% | 2.9 | 0.5 | A |
| | Subtotal | 71 | 70 | 98.6% | 2.9 | 0.5 | A |
| EB | Left Turn | 42 | 40 | 95.5% | 3.8 | 1.5 | A |
| | Through | 255 | 261 | 102.4% | 2.6 | 0.7 | A |
| | Right Turn | 21 | 23 | 108.6% | 2.3 | 3.3 | A |
| | Subtotal | 318 | 324 | 101.9% | 2.7 | 0.7 | A |
| WB | Left Turn | 32 | 27 | 84.1% | 2.9 | 1.2 | A |
| | Through | 185 | 174 | 94.3% | 0.3 | 0.1 | A |
| | Right Turn | 10 | 9 | 94.0% | 0.0 | 0.1 | A |
| | Subtotal | 227 | 211 | 92.8% | 0.6 | 0.3 | A |
| Total | | 649 | 637 | 98.0% | 2.3 | 0.4 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 1 | 25 | 4 | 25 | 9 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 2 | 25 | 19 | 25 | 55 | 0% | 0% |
| | Through | 375 | 100 | 12 | 175 | 32 | 225 | 59 | 3% | 0% |
| | Through/Right | 375 | 100 | 13 | 200 | 30 | 225 | 60 | 0% | 0% |
| SB | Left Turn | 225 | 125 | 34 | 250 | 70 | 300 | 33 | 1% | 0% |
| | Through | 375 | 175 | 68 | 375 | 106 | 425 | 45 | 28% | 6% |
| | Right Turn | 50 | 25 | 2 | 25 | 8 | 50 | 15 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 4 | 50 | 11 | 75 | 18 | 0% | 0% |
| | Right Turn | 200 | 25 | 4 | 50 | 9 | 75 | 15 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 125 | 7 | 175 | 11 | 175 | 10 | 0% | 18% |
| | Through/Right | 125 | 75 | 10 | 150 | 14 | 150 | 14 | 0% | 6% |
| NB | Left Turn | 225 | 50 | 12 | 150 | 57 | 250 | 98 | 0% | 0% |
| | Through | 475 | 200 | 27 | 450 | 45 | 500 | 56 | 7% | 1% |
| | Through/Right | 475 | 200 | 22 | 450 | 31 | 525 | 47 | 0% | 1% |
| SB | Left Turn | 200 | 75 | 16 | 150 | 48 | 200 | 67 | 0% | 0% |
| | Through | 750 | 175 | 41 | 325 | 108 | 400 | 137 | 8% | 0% |
| | Right Turn | 375 | 50 | 18 | 125 | 90 | 250 | 192 | 0% | 0% |
| WB | Left Turn | 150 | 25 | 6 | 75 | 11 | 75 | 25 | 0% | 0% |
| | Through/Right | 150 | 50 | 6 | 100 | 13 | 125 | 22 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 24 | 125 | 63 | 150 | 78 | 24% | 0% |
| | Right Turn | 75 | 25 | 3 | 50 | 10 | 75 | 19 | 1% | 0% |
| NB | Left Turn | 125 | 50 | 12 | 100 | 18 | 100 | 14 | 6% | 3% |
| | Through | 125 | 50 | 22 | 125 | 61 | 175 | 38 | 11% | 11% |
| | Through/Right | 125 | 25 | 7 | 100 | 22 | 150 | 37 | 0% | 1% |
| SB | Left Turn | 125 | 50 | 16 | 125 | 34 | 150 | 26 | 1% | 0% |
| | Through | 375 | 250 | 78 | 500 | 83 | 450 | 30 | 26% | 11% |
| | Right Turn | 125 | 50 | 9 | 125 | 19 | 150 | 0 | 0% | 0% |
| WB | Left Turn | 200 | 75 | 20 | 175 | 46 | 200 | 37 | 0% | 7% |
| | Through/Right | 200 | 50 | 9 | 75 | 26 | 100 | 45 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 25 | 3 | 75 | 8 | 75 | 17 | 0% | 0% |
| | Right Turn | 225 | 25 | 3 | 25 | 25 | 75 | 74 | 0% | 0% |
| SB | Through | 175 | 250 | 9 | 325 | 16 | 300 | 9 | 0% | 63% |
| | Through/Right | 175 | 250 | 11 | 325 | 14 | 275 | 14 | 0% | 58% |
| WB | Left Turn | 475 | 300 | 39 | 500 | 55 | 500 | 12 | 19% | 6% |
| | Shared | 300 | 250 | 30 | 400 | 22 | 375 | 0 | 15% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 9 | 250 | 6 | 200 | 0 | 21% | 7% |
| | Through | 200 | 275 | 10 | 300 | 22 | 300 | 12 | 63% | 65% |
| | Right Turn | 50 | 75 | 3 | 100 | 4 | 75 | 0 | 19% | 0% |
| NB | Left Turn | 275 | 100 | 11 | 200 | 25 | 250 | 28 | 0% | 0% |
| | Through | 250 | 325 | 15 | 425 | 32 | 375 | 15 | 41% | 41% |
| | Through/Right | 250 | 250 | 10 | 325 | 23 | 250 | 0 | 22% | 8% |
| SB | Left Turn | 175 | 125 | 8 | 200 | 9 | 175 | 0 | 8% | 0% |
| | Through | 225 | 250 | 15 | 325 | 17 | 325 | 16 | 29% | 17% |
| | Through/Right | 225 | 225 | 18 | 325 | 12 | 325 | 17 | 0% | 13% |
| WB | Left Turn | 100 | 75 | 15 | 150 | 21 | 150 | 0 | 16% | 0% |
| | Through | 325 | 150 | 18 | 300 | 40 | 350 | 48 | 27% | 3% |
| | Through/Right | 325 | 50 | 6 | 100 | 25 | 150 | 58 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Existing + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 75 | 13 | 175 | 25 | 200 | 25 | 0% | 1% |
| | Through/Right | 200 | 25 | 5 | 75 | 22 | 100 | 41 | 0% | 0% |
| NB | Right Turn | 225 | 50 | 4 | 75 | 11 | 75 | 24 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 3 | 50 | 6 | 75 | 15 | 1% | 0% |
| | Through | 125 | 25 | 1 | 25 | 15 | 25 | 44 | 0% | 0% |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Existing + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 2 | 50 | 5 | 50 | 13 | 0% | 0% |
| | Through | 200 | 25 | 1 | 25 | 11 | 50 | 33 | 0% | 0% |
| | Through/Right | 200 | 25 | 0 | 25 | 3 | 25 | 10 | 0% | 0% |
| NB | Shared | 125 | 25 | 3 | 50 | 3 | 50 | 12 | 0% | 0% |
| | Right-Turn | 100 | 50 | 2 | 75 | 8 | 100 | 18 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 3 | 25 | 8 | 50 | 11 | 0% | 0% |
| | Through | 75 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through/Right | 75 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

11/12/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 585 | 377 | 204 | 501 | 56 | 1382 | 106 | 1562 | 453 |
| v/c Ratio | 0.79 | 0.65 | 0.28 | 0.60 | 0.40 | 0.80 | 0.55 | 0.77 | 0.39 |
| Control Delay | 61.4 | 59.5 | 49.5 | 47.9 | 75.5 | 45.0 | 73.8 | 40.7 | 5.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.4 | 59.5 | 49.5 | 47.9 | 75.5 | 45.2 | 73.8 | 40.7 | 5.6 |
| Queue Length 50th (ft) | 255 | 171 | 79 | 134 | 50 | 410 | 91 | 445 | 50 |
| Queue Length 95th (ft) | #447 | 250 | 142 | 184 | 113 | 575 | #204 | 677 | 173 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 822 | 1565 | 722 | 1602 | 200 | 2230 | 213 | 2258 | 1182 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 0.24 | 0.28 | 0.31 | 0.28 | 0.68 | 0.50 | 0.69 | 0.38 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↕↔ | | ↔↔ | ↕↕↔ | | ↔ | ↕↕↔ | | ↔ | ↕↕↕ | ↔ |
| Traffic Volume (veh/h) | 567 | 336 | 30 | 198 | 305 | 181 | 54 | 1206 | 135 | 103 | 1515 | 439 |
| Future Volume (veh/h) | 567 | 336 | 30 | 198 | 305 | 181 | 54 | 1206 | 135 | 103 | 1515 | 439 |
| 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 | 585 | 346 | 0 | 204 | 314 | 0 | 56 | 1243 | 139 | 106 | 1562 | 453 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 678 | 472 | | 630 | 663 | | 116 | 1643 | 184 | 207 | 2118 | 968 |
| Arrive On Green | 0.20 | 0.13 | 0.00 | 0.18 | 0.13 | 0.00 | 0.07 | 0.35 | 0.35 | 0.12 | 0.41 | 0.41 |
| Sat Flow, veh/h | 3456 | 3647 | 0 | 3456 | 5274 | 0 | 1781 | 4660 | 521 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 585 | 346 | 0 | 204 | 314 | 0 | 56 | 908 | 474 | 106 | 1562 | 453 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1777 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 18.9 | 10.8 | 0.0 | 5.9 | 6.6 | 0.0 | 3.5 | 27.2 | 27.2 | 6.5 | 29.8 | 18.0 |
| Cycle Q Clear(g_c), s | 18.9 | 10.8 | 0.0 | 5.9 | 6.6 | 0.0 | 3.5 | 27.2 | 27.2 | 6.5 | 29.8 | 18.0 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.29 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 678 | 472 | | 630 | 663 | | 116 | 1200 | 626 | 207 | 2118 | 968 |
| V/C Ratio(X) | 0.86 | 0.73 | | 0.32 | 0.47 | | 0.48 | 0.76 | 0.76 | 0.51 | 0.74 | 0.47 |
| Avail Cap(c_a), veh/h | 958 | 1838 | | 630 | 1902 | | 233 | 1763 | 920 | 233 | 2645 | 1132 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 44.9 | 48.1 | 0.0 | 41.0 | 46.6 | 0.0 | 52.1 | 33.0 | 33.0 | 48.0 | 28.5 | 12.2 |
| Incr Delay (d2), s/veh | 5.9 | 2.2 | 0.0 | 0.3 | 0.5 | 0.0 | 3.1 | 1.1 | 2.1 | 2.0 | 0.8 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.6 | 4.9 | 0.0 | 2.6 | 2.8 | 0.0 | 1.7 | 11.1 | 11.8 | 3.0 | 11.9 | 6.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.8 | 50.3 | 0.0 | 41.3 | 47.1 | 0.0 | 55.2 | 34.1 | 35.1 | 49.9 | 29.3 | 12.6 |
| LnGrp LOS | D | D | | D | D | | E | C | D | D | C | B |
| Approach Vol, veh/h | | 931 | A | | 518 | A | | 1438 | | | 2121 | |
| Approach Delay, s/veh | | 50.6 | | | 44.8 | | | 35.3 | | | 26.8 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.4 | 54.1 | 27.3 | 21.6 | 19.6 | 46.9 | 27.7 | 21.3 | | | | |
| Change Period (Y+Rc), s | 4.9 | 6.2 | 6.3 | * 6.3 | 6.2 | * 6.2 | 5.0 | 6.3 | | | | |
| Max Green Setting (Gmax), s | 15.1 | 59.8 | 15.0 | * 60 | 15.1 | * 60 | 32.0 | 43.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.5 | 31.8 | 7.9 | 12.8 | 8.5 | 29.2 | 20.9 | 8.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 16.1 | 0.4 | 2.5 | 0.1 | 11.5 | 1.8 | 2.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.5 |
| HCM 6th LOS | D |

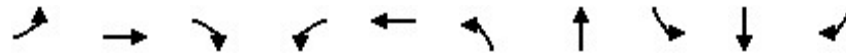
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Queues

9: Slauson Ave & Jefferson BI

11/12/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 97 | 860 | 242 | 45 | 823 | 342 | 115 | 30 | 268 | 259 |
| v/c Ratio | 0.50 | 0.53 | 0.26 | 0.26 | 0.60 | 0.63 | 0.19 | 0.12 | 0.61 | 0.51 |
| Control Delay | 52.3 | 29.7 | 7.8 | 49.2 | 33.0 | 46.2 | 26.8 | 43.4 | 39.7 | 14.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.3 | 29.7 | 7.8 | 49.2 | 33.0 | 46.2 | 26.8 | 43.4 | 39.7 | 14.9 |
| Queue Length 50th (ft) | 56 | 161 | 36 | 26 | 155 | 100 | 52 | 16 | 143 | 40 |
| Queue Length 95th (ft) | 124 | 238 | 98 | 71 | 241 | #197 | 110 | 52 | 255 | 124 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 282 | 3228 | 914 | 282 | 3210 | 544 | 1146 | 287 | 1196 | 1079 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.27 | 0.26 | 0.16 | 0.26 | 0.63 | 0.10 | 0.10 | 0.22 | 0.24 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary
 9: Slauson Ave & Jefferson BI

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 94 | 834 | 235 | 44 | 768 | 30 | 332 | 92 | 19 | 29 | 260 | 251 |
| Future Volume (veh/h) | 94 | 834 | 235 | 44 | 768 | 30 | 332 | 92 | 19 | 29 | 260 | 251 |
| 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 | 97 | 860 | 242 | 45 | 792 | 31 | 342 | 95 | 0 | 30 | 268 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 143 | 1789 | 783 | 120 | 1700 | 66 | 495 | 499 | | 135 | 365 | |
| Arrive On Green | 0.08 | 0.35 | 0.35 | 0.07 | 0.34 | 0.34 | 0.14 | 0.27 | 0.00 | 0.08 | 0.20 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5042 | 197 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 97 | 860 | 242 | 45 | 534 | 289 | 342 | 95 | 0 | 30 | 268 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1835 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 4.8 | 11.9 | 8.3 | 2.2 | 11.2 | 11.2 | 8.5 | 3.6 | 0.0 | 1.4 | 12.2 | 0.0 |
| Cycle Q Clear(g_c), s | 4.8 | 11.9 | 8.3 | 2.2 | 11.2 | 11.2 | 8.5 | 3.6 | 0.0 | 1.4 | 12.2 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 143 | 1789 | 783 | 120 | 1148 | 619 | 495 | 499 | | 135 | 365 | |
| V/C Ratio(X) | 0.68 | 0.48 | 0.31 | 0.38 | 0.47 | 0.47 | 0.69 | 0.19 | | 0.22 | 0.73 | |
| Avail Cap(c_a), veh/h | 295 | 3361 | 1270 | 295 | 2241 | 1208 | 568 | 1223 | | 300 | 1246 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 40.5 | 23.0 | 13.7 | 40.5 | 23.6 | 23.6 | 36.9 | 25.7 | 0.0 | 39.4 | 34.3 | 0.0 |
| Incr Delay (d2), s/veh | 2.1 | 0.4 | 0.5 | 0.7 | 0.6 | 1.2 | 2.1 | 0.4 | 0.0 | 0.3 | 6.0 | 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(50%),veh/ln | 2.2 | 4.7 | 2.9 | 1.0 | 4.5 | 4.9 | 3.7 | 1.6 | 0.0 | 0.6 | 6.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.6 | 23.4 | 14.2 | 41.2 | 24.3 | 24.8 | 39.1 | 26.1 | 0.0 | 39.7 | 40.3 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1199 | | | 868 | | | 437 | A | | 298 | A |
| Approach Delay, s/veh | | 23.1 | | | 25.3 | | | 36.3 | | | 40.2 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 36.9 | 18.1 | 24.4 | 10.1 | 38.1 | 11.6 | 30.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 59.7 | * 15 | * 60 | 15.0 | 59.7 | * 15 | 59.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 13.2 | 10.5 | 14.2 | 4.2 | 13.9 | 3.4 | 5.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.2 | 0.3 | 3.5 | 0.0 | 17.9 | 0.0 | 1.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 27.7 |
| HCM 6th LOS | C |

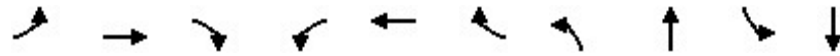
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/12/2020

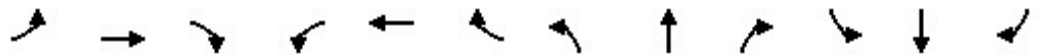


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 354 | 230 | 180 | 256 | 247 | 142 | 1251 | 282 | 1459 |
| v/c Ratio | 0.28 | 0.64 | 0.50 | 0.58 | 0.40 | 0.40 | 0.53 | 0.55 | 0.67 | 0.58 |
| Control Delay | 55.9 | 52.2 | 13.4 | 60.2 | 45.4 | 5.2 | 61.0 | 26.6 | 59.0 | 24.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.9 | 52.2 | 13.4 | 60.2 | 45.4 | 5.2 | 61.0 | 26.6 | 59.0 | 24.1 |
| Queue Length 50th (ft) | 34 | 142 | 49 | 70 | 100 | 12 | 55 | 237 | 109 | 264 |
| Queue Length 95th (ft) | 73 | 163 | 77 | 107 | 118 | 44 | 88 | 375 | 155 | 428 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 212 | 976 | 491 | 411 | 977 | 631 | 331 | 2255 | 441 | 2499 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.36 | 0.47 | 0.44 | 0.26 | 0.39 | 0.43 | 0.55 | 0.64 | 0.58 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/12/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 45 | 343 | 223 | 175 | 248 | 240 | 138 | 1146 | 68 | 274 | 1393 | 22 |
| Future Volume (veh/h) | 45 | 343 | 223 | 175 | 248 | 240 | 138 | 1146 | 68 | 274 | 1393 | 22 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.94 | 1.00 | | 0.93 | 1.00 | | 0.93 | 1.00 | | 0.94 |
| 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 | 354 | 230 | 180 | 256 | 247 | 142 | 1181 | 70 | 282 | 1436 | 23 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 128 | 835 | 469 | 287 | 913 | 704 | 257 | 1376 | 82 | 708 | 2142 | 34 |
| Arrive On Green | 0.07 | 0.23 | 0.23 | 0.08 | 0.26 | 0.26 | 0.07 | 0.28 | 0.28 | 0.20 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1781 | 3554 | 1496 | 3456 | 3554 | 1477 | 3456 | 4906 | 291 | 3456 | 5171 | 83 |
| Grp Volume(v), veh/h | 46 | 354 | 230 | 180 | 256 | 247 | 142 | 819 | 432 | 282 | 945 | 514 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1496 | 1728 | 1777 | 1477 | 1728 | 1702 | 1792 | 1728 | 1702 | 1849 |
| Q Serve(g_s), s | 3.0 | 10.2 | 10.1 | 6.0 | 6.9 | 2.7 | 4.8 | 27.4 | 27.4 | 8.5 | 27.0 | 27.0 |
| Cycle Q Clear(g_c), s | 3.0 | 10.2 | 10.1 | 6.0 | 6.9 | 2.7 | 4.8 | 27.4 | 27.4 | 8.5 | 27.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 128 | 835 | 469 | 287 | 913 | 704 | 257 | 955 | 503 | 708 | 1410 | 766 |
| V/C Ratio(X) | 0.36 | 0.42 | 0.49 | 0.63 | 0.28 | 0.35 | 0.55 | 0.86 | 0.86 | 0.40 | 0.67 | 0.67 |
| Avail Cap(c_a), veh/h | 214 | 980 | 530 | 415 | 980 | 732 | 334 | 999 | 526 | 708 | 1410 | 766 |
| 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(l) | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.64 | 0.64 | 0.64 |
| Uniform Delay (d), s/veh | 53.1 | 39.0 | 16.5 | 53.2 | 35.7 | 8.6 | 53.6 | 40.9 | 40.9 | 41.3 | 28.5 | 28.5 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.3 | 0.8 | 0.1 | 0.1 | 0.7 | 9.9 | 17.1 | 0.1 | 1.6 | 3.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 4.5 | 3.5 | 2.7 | 3.0 | 2.4 | 2.1 | 12.7 | 14.4 | 3.6 | 11.2 | 12.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.6 | 39.1 | 16.8 | 54.0 | 35.8 | 8.7 | 54.3 | 50.8 | 58.0 | 41.4 | 30.1 | 31.5 |
| LnGrp LOS | D | D | B | D | D | A | D | D | E | D | C | C |
| Approach Vol, veh/h | | 630 | | | 683 | | | 1393 | | | 1741 | |
| Approach Delay, s/veh | | 32.0 | | | 30.8 | | | 53.4 | | | 32.4 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 55.7 | 15.9 | 34.1 | 30.6 | 39.5 | 13.2 | 36.7 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 11.6 | * 39 | * 14 | * 33 | 15.4 | * 35 | * 14 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 29.0 | 8.0 | 12.2 | 10.5 | 29.4 | 5.0 | 8.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.4 | 0.0 | 0.6 | 0.0 | 1.6 | 0.0 | 0.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.7 |
| HCM 6th LOS | D |

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

11/12/2020























| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 184 | 292 | 46 | 903 | 115 | 35 | 1327 | 75 |
| v/c Ratio | 0.42 | 0.77 | 0.26 | 0.40 | 0.11 | 0.11 | 0.58 | 0.07 |
| Control Delay | 35.4 | 53.5 | 13.6 | 10.5 | 4.3 | 10.8 | 14.3 | 5.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.4 | 53.5 | 13.6 | 10.5 | 4.3 | 10.8 | 14.3 | 5.9 |
| Queue Length 50th (ft) | 107 | 203 | 14 | 147 | 11 | 10 | 294 | 11 |
| Queue Length 95th (ft) | 165 | 291 | 11 | 65 | 0 | 28 | 403 | 33 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 453 | 388 | 190 | 2421 | 1107 | 351 | 2421 | 1094 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.75 | 0.24 | 0.37 | 0.10 | 0.10 | 0.55 | 0.07 |

Intersection Summary

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/12/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 28 | 103 | 48 | 87 | 156 | 40 | 45 | 876 | 112 | 34 | 1287 | 73 |
| Future Volume (veh/h) | 28 | 103 | 48 | 87 | 156 | 40 | 45 | 876 | 112 | 34 | 1287 | 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 | 29 | 106 | 49 | 90 | 161 | 41 | 46 | 903 | 115 | 35 | 1327 | 75 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 215 | 90 | 125 | 187 | 45 | 261 | 2493 | 1112 | 392 | 2493 | 1112 |
| Arrive On Green | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Sat Flow, veh/h | 157 | 1035 | 433 | 415 | 899 | 215 | 384 | 3554 | 1585 | 554 | 3554 | 1585 |
| Grp Volume(v), veh/h | 184 | 0 | 0 | 292 | 0 | 0 | 46 | 903 | 115 | 35 | 1327 | 75 |
| Grp Sat Flow(s),veh/h/ln | 1625 | 0 | 0 | 1528 | 0 | 0 | 384 | 1777 | 1585 | 554 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 0.0 | 7.8 | 12.2 | 2.8 | 3.2 | 21.3 | 1.8 |
| Cycle Q Clear(g_c), s | 11.4 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 29.1 | 12.2 | 2.8 | 15.4 | 21.3 | 1.8 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 372 | 0 | 0 | 357 | 0 | 0 | 261 | 2493 | 1112 | 392 | 2493 | 1112 |
| V/C Ratio(X) | 0.49 | 0.00 | 0.00 | 0.82 | 0.00 | 0.00 | 0.18 | 0.36 | 0.10 | 0.09 | 0.53 | 0.07 |
| Avail Cap(c_a), veh/h | 412 | 0 | 0 | 394 | 0 | 0 | 261 | 2493 | 1112 | 392 | 2493 | 1112 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.0 | 0.0 | 0.0 | 46.7 | 0.0 | 0.0 | 15.5 | 7.2 | 5.8 | 10.3 | 8.5 | 5.6 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 1.5 | 0.4 | 0.2 | 0.2 | 0.4 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.9 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 0.8 | 4.2 | 0.9 | 0.4 | 7.2 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.4 | 0.0 | 0.0 | 57.2 | 0.0 | 0.0 | 16.9 | 7.6 | 6.0 | 10.5 | 8.9 | 5.7 |
| LnGrp LOS | D | A | A | E | A | A | B | A | A | B | A | A |
| Approach Vol, veh/h | | 184 | | | 292 | | | 1064 | | | 1437 | |
| Approach Delay, s/veh | | 42.4 | | | 57.2 | | | 7.8 | | | 8.8 | |
| Approach LOS | | D | | | E | | | A | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 89.9 | | 30.1 | | 89.9 | | 30.1 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 81.3 | | * 28 | | 81.3 | | * 28 | | | | |
| Max Q Clear Time (g_c+I1), s | | 31.1 | | 13.4 | | 23.3 | | 24.6 | | | | |
| Green Ext Time (p_c), s | | 18.9 | | 0.6 | | 31.0 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 15.3 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Opening Year (2024) AM

Queues

1: Culver Blvd & Sepulveda Blvd

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 266 | 1240 | 66 | 145 | 1241 | 251 | 1221 | 261 | 83 | 503 | 188 |
| v/c Ratio | 0.74 | 1.00 | 0.10 | 0.46 | 0.73 | 0.69 | 1.09 | 0.44 | 0.38 | 0.52 | 0.34 |
| Control Delay | 65.2 | 65.8 | 0.3 | 56.9 | 38.7 | 62.1 | 95.1 | 13.5 | 46.6 | 38.5 | 6.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.2 | 65.8 | 0.3 | 56.9 | 38.7 | 62.1 | 95.1 | 13.5 | 46.6 | 38.5 | 6.3 |
| Queue Length 50th (ft) | 104 | ~566 | 0 | 55 | 319 | 97 | ~561 | 49 | 47 | 167 | 0 |
| Queue Length 95th (ft) | #159 | #703 | 0 | 90 | 377 | 141 | #698 | 124 | 88 | 223 | 54 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 360 | 1238 | 659 | 314 | 1694 | 400 | 1117 | 597 | 221 | 1049 | 585 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 1.00 | 0.10 | 0.46 | 0.73 | 0.63 | 1.09 | 0.44 | 0.38 | 0.48 | 0.32 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↖↗ | ↑↑ | ↖ | ↖↗ | ↑↑↔ | | ↖↗ | ↑↑ | ↖ | ↖ | ↑↑ | ↖ |
| Traffic Volume (veh/h) | 253 | 1178 | 63 | 138 | 1096 | 83 | 238 | 1160 | 248 | 79 | 478 | 179 |
| Future Volume (veh/h) | 253 | 1178 | 63 | 138 | 1096 | 83 | 238 | 1160 | 248 | 79 | 478 | 179 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.95 |
| 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 | 266 | 1240 | 66 | 145 | 1154 | 87 | 251 | 1221 | 261 | 83 | 503 | 188 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 326 | 1149 | 496 | 1950 | 3891 | 293 | 317 | 1122 | 481 | 213 | 1135 | 483 |
| Arrive On Green | 0.09 | 0.32 | 0.32 | 0.56 | 0.80 | 0.80 | 0.09 | 0.32 | 0.32 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1534 | 3456 | 4835 | 364 | 3456 | 3554 | 1522 | 1781 | 3554 | 1513 |
| Grp Volume(v), veh/h | 266 | 1240 | 66 | 145 | 812 | 429 | 251 | 1221 | 261 | 83 | 503 | 188 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1534 | 1728 | 1702 | 1796 | 1728 | 1777 | 1522 | 1781 | 1777 | 1513 |
| Q Serve(g_s), s | 9.1 | 38.8 | 5.3 | 2.3 | 7.3 | 7.4 | 8.5 | 37.9 | 17.0 | 1.1 | 13.5 | 11.6 |
| Cycle Q Clear(g_c), s | 9.1 | 38.8 | 5.3 | 2.3 | 7.3 | 7.4 | 8.5 | 37.9 | 17.0 | 1.1 | 13.5 | 11.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 326 | 1149 | 496 | 1950 | 2739 | 1445 | 317 | 1122 | 481 | 213 | 1135 | 483 |
| V/C Ratio(X) | 0.81 | 1.08 | 0.13 | 0.07 | 0.30 | 0.30 | 0.79 | 1.09 | 0.54 | 0.39 | 0.44 | 0.39 |
| Avail Cap(c_a), veh/h | 363 | 1149 | 496 | 1950 | 2739 | 1445 | 403 | 1122 | 481 | 223 | 1135 | 483 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.3 | 40.6 | 60.5 | 11.9 | 3.0 | 3.0 | 53.4 | 41.0 | 33.9 | 50.2 | 32.4 | 31.8 |
| Incr Delay (d2), s/veh | 14.7 | 50.6 | 0.6 | 0.0 | 0.3 | 0.5 | 6.2 | 54.1 | 2.2 | 0.4 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.6 | 24.8 | 1.5 | 0.9 | 2.0 | 2.3 | 4.0 | 24.7 | 6.6 | 2.3 | 5.9 | 4.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.0 | 91.2 | 61.1 | 11.9 | 3.3 | 3.5 | 59.6 | 95.1 | 36.1 | 50.7 | 33.0 | 32.8 |
| LnGrp LOS | E | F | E | B | A | A | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1572 | | | 1386 | | | 1733 | | | 774 | |
| Approach Delay, s/veh | | 86.1 | | | 4.3 | | | 81.1 | | | 34.8 | |
| Approach LOS | | F | | | A | | | F | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 104.1 | 16.4 | 44.0 | 75.2 | 44.6 | 16.0 | 44.4 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 12.6 | * 37 | * 11 | * 38 | * 11 | * 39 | 14.0 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.1 | 9.4 | 3.1 | 39.9 | 4.3 | 40.8 | 10.5 | 15.5 | | | | |
| Green Ext Time (p_c), s | 0.3 | 17.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.2 | 7.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 56.5 |
| HCM 6th LOS | E |

Notes

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

Queues

2: Jefferson Blvd & Overland Ave

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 172 | 560 | 375 | 57 | 907 | 439 | 409 | 833 | 304 | 921 | 394 |
| v/c Ratio | 0.91 | 0.59 | 0.52 | 0.25 | 0.96 | 0.62 | 0.90 | 0.77 | 0.63 | 0.81 | 0.59 |
| Control Delay | 98.9 | 42.2 | 12.8 | 50.0 | 63.8 | 18.3 | 50.9 | 19.6 | 55.6 | 44.3 | 14.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 98.9 | 42.2 | 12.8 | 50.0 | 63.8 | 18.3 | 50.9 | 19.6 | 55.6 | 44.3 | 14.7 |
| Queue Length 50th (ft) | 134 | 212 | 88 | 39 | 364 | 129 | 146 | 297 | 115 | 345 | 77 |
| Queue Length 95th (ft) | #266 | 257 | 149 | 85 | #496 | 216 | m#206 | 405 | #176 | 428 | 183 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 191 | 1080 | 720 | 234 | 949 | 703 | 460 | 1163 | 485 | 1135 | 672 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.52 | 0.52 | 0.24 | 0.96 | 0.62 | 0.89 | 0.72 | 0.63 | 0.81 | 0.59 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | | ↘↗ | ↑↑ | ↗ |
| Traffic Volume (veh/h) | 163 | 532 | 356 | 54 | 862 | 417 | 389 | 749 | 43 | 289 | 875 | 374 |
| Future Volume (veh/h) | 163 | 532 | 356 | 54 | 862 | 417 | 389 | 749 | 43 | 289 | 875 | 374 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 172 | 560 | 375 | 57 | 907 | 439 | 409 | 788 | 0 | 304 | 921 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 193 | 847 | 581 | 220 | 953 | 671 | 460 | 995 | | 568 | 1132 | |
| Arrive On Green | 0.11 | 0.24 | 0.24 | 0.12 | 0.27 | 0.27 | 0.13 | 0.28 | 0.00 | 0.16 | 0.32 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1553 | 1781 | 3554 | 1532 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 172 | 560 | 375 | 57 | 907 | 439 | 409 | 788 | 0 | 304 | 921 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1553 | 1781 | 1777 | 1532 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 11.4 | 17.1 | 14.0 | 3.5 | 30.1 | 6.8 | 14.0 | 24.6 | 0.0 | 9.7 | 28.6 | 0.0 |
| Cycle Q Clear(g_c), s | 11.4 | 17.1 | 14.0 | 3.5 | 30.1 | 6.8 | 14.0 | 24.6 | 0.0 | 9.7 | 28.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 193 | 847 | 581 | 220 | 953 | 671 | 460 | 995 | | 568 | 1132 | |
| V/C Ratio(X) | 0.89 | 0.66 | 0.65 | 0.26 | 0.95 | 0.65 | 0.89 | 0.79 | | 0.54 | 0.81 | |
| Avail Cap(c_a), veh/h | 193 | 998 | 647 | 220 | 954 | 672 | 464 | 1176 | | 568 | 1132 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.8 | 41.3 | 13.0 | 47.6 | 43.1 | 10.6 | 51.1 | 40.0 | 0.0 | 45.9 | 37.6 | 0.0 |
| Incr Delay (d2), s/veh | 35.5 | 2.2 | 3.0 | 0.2 | 18.8 | 3.1 | 18.0 | 6.5 | 0.0 | 0.5 | 6.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.0 | 7.7 | 5.1 | 1.6 | 15.6 | 5.5 | 7.2 | 11.6 | 0.0 | 4.2 | 13.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 88.3 | 43.5 | 16.0 | 47.9 | 62.0 | 13.7 | 69.1 | 46.4 | 0.0 | 46.5 | 44.0 | 0.0 |
| LnGrp LOS | F | D | B | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1107 | | | 1403 | | | 1197 | A | | 1225 | A |
| Approach Delay, s/veh | | 41.1 | | | 46.3 | | | 54.2 | | | 44.6 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 25.6 | 39.4 | 20.6 | 34.4 | 20.9 | 44.1 | 17.0 | 38.0 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 5.8 | * 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 14.2 | * 40 | 11.5 | * 34 | 16.1 | * 38 | 13.0 | 32.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.7 | 26.6 | 5.5 | 19.1 | 16.0 | 30.6 | 13.4 | 32.1 | | | | |
| Green Ext Time (p_c), s | 0.2 | 7.0 | 0.0 | 7.8 | 0.0 | 5.1 | 0.0 | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 46.7 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
AMPeak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,600 | 1,401 | 87.5% | 15.2 | 2.8 | B |
| | Right Turn | 65 | 57 | 86.9% | 10.8 | 4.2 | B |
| | Subtotal | 1,665 | 1,457 | 87.5% | 15.0 | 2.8 | B |
| SB | Left Turn | 108 | 108 | 100.1% | 59.7 | 6.7 | E |
| | Through | 439 | 437 | 99.5% | 7.4 | 1.5 | A |
| | Right Turn | 5 | 5 | 96.0% | 4.8 | 1.7 | A |
| | Subtotal | 552 | 550 | 99.6% | 17.9 | 2.6 | B |
| EB | Left Turn | 8 | 8 | 98.8% | 49.1 | 28.0 | D |
| | Through | 5 | 5 | 106.0% | 51.4 | 40.2 | D |
| | Right Turn | 6 | 6 | 101.7% | 13.9 | 30.7 | B |
| | Subtotal | 19 | 19 | 101.6% | 41.9 | 15.3 | D |
| WB | Left Turn | 24 | 19 | 78.3% | 49.8 | 13.4 | D |
| | Through | 1 | 2 | 210.0% | 7.2 | 22.9 | A |
| | Right Turn | 299 | 272 | 91.0% | 15.9 | 3.2 | B |
| | Subtotal | 324 | 293 | 90.5% | 18.9 | 3.3 | B |
| Total | | 2,560 | 2,319 | 90.6% | 16.4 | 2.2 | B |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 23 | 19 | 83.9% | 19.9 | 4.9 | B |
| | Through | 1,420 | 1,203 | 84.7% | 15.0 | 4.1 | B |
| | Right Turn | 25 | 24 | 96.4% | 13.3 | 4.3 | B |
| | Subtotal | 1,468 | 1,246 | 84.9% | 15.0 | 4.1 | B |
| SB | Left Turn | 61 | 62 | 101.5% | 38.8 | 12.8 | D |
| | Through | 1,107 | 980 | 88.5% | 80.2 | 21.5 | F |
| | Right Turn | 279 | 251 | 90.0% | 38.5 | 14.6 | D |
| | Subtotal | 1,447 | 1,293 | 89.4% | 71.2 | 19.7 | E |
| EB | Left Turn | 141 | 135 | 95.7% | 34.9 | 12.5 | C |
| | Through | 22 | 21 | 94.5% | 32.5 | 13.7 | C |
| | Right Turn | 15 | 16 | 108.0% | 19.2 | 12.6 | B |
| | Subtotal | 178 | 172 | 96.6% | 33.6 | 10.5 | C |
| WB | Left Turn | 13 | 15 | 112.3% | 42.7 | 13.2 | D |
| | Through | 22 | 22 | 100.9% | 50.4 | 8.2 | D |
| | Right Turn | 27 | 26 | 97.4% | 25.3 | 7.8 | C |
| | Subtotal | 62 | 63 | 101.8% | 38.5 | 3.8 | D |
| Total | | 3,155 | 2,774 | 87.9% | 41.8 | 10.0 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 13 | 11 | 82.3% | 5.0 | 1.7 | A |
| | Through | 1,622 | 1,414 | 87.2% | 0.4 | 0.1 | A |
| | Right Turn | 12 | 11 | 90.0% | 0.2 | 0.2 | A |
| | Subtotal | 1,647 | 1,436 | 87.2% | 0.5 | 0.1 | A |
| SB | Left Turn | 5 | 4 | 88.0% | 11.2 | 15.8 | B |
| | Through | 446 | 438 | 98.3% | 1.2 | 0.3 | A |
| | Right Turn | 18 | 19 | 105.0% | 0.8 | 0.6 | A |
| | Subtotal | 469 | 462 | 98.4% | 1.3 | 0.5 | A |
| EB | Left Turn | 40 | 39 | 97.3% | 22.8 | 4.7 | C |
| | Through | 1 | 1 | 130.0% | 7.8 | 16.4 | A |
| | Right Turn | 6 | 6 | 95.0% | 3.4 | 2.7 | A |
| | Subtotal | 47 | 46 | 97.7% | 20.6 | 4.6 | C |
| WB | Left Turn | 4 | 3 | 82.5% | 12.3 | 13.8 | B |
| | Through | 1 | 1 | 60.0% | 0.0 | 0.0 | A |
| | Right Turn | 3 | 4 | 126.7% | 8.2 | 11.1 | A |
| | Subtotal | 8 | 8 | 96.3% | 12.6 | 11.5 | B |
| Total | | 2,171 | 1,951 | 89.8% | 1.3 | 0.2 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,466 | 1,257 | 85.8% | 4.8 | 0.4 | A |
| | Right Turn | 1,468 | 1,248 | 85.0% | 4.7 | 0.2 | A |
| | Subtotal | 2,934 | 2,505 | 85.4% | 4.8 | 0.2 | A |
| SB | Left Turn | | | | | | |
| | Through | 501 | 496 | 99.0% | 32.7 | 4.0 | C |
| | Right Turn | 3 | 4 | 130.0% | 24.7 | 28.7 | C |
| | Subtotal | 504 | 500 | 99.1% | 32.6 | 4.1 | C |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,118 | 990 | 88.5% | 104.7 | 8.4 | F |
| | Through | 2 | 3 | 160.0% | 45.3 | 49.3 | D |
| | Right Turn | 15 | 13 | 89.3% | 98.9 | 24.4 | F |
| | Subtotal | 1,135 | 1,006 | 88.7% | 104.5 | 8.2 | F |
| Total | | 4,573 | 4,011 | 87.7% | 34.8 | 2.5 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
AM Peak Hour

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 178 | 145 | 81.7% | 128.1 | 17.4 | F |
| | Through | 2,549 | 2,126 | 83.4% | 90.9 | 6.3 | F |
| | Right Turn | 42 | 32 | 75.2% | 98.0 | 11.8 | F |
| | Subtotal | 2,769 | 2,303 | 83.2% | 93.3 | 6.1 | F |
| SB | Left Turn | 88 | 80 | 91.0% | 34.9 | 10.2 | C |
| | Through | 1,306 | 1,201 | 92.0% | 15.0 | 1.4 | B |
| | Right Turn | 225 | 204 | 90.6% | 9.3 | 1.3 | A |
| | Subtotal | 1,619 | 1,485 | 91.7% | 15.3 | 1.4 | B |
| EB | Left Turn | 185 | 178 | 96.3% | 144.9 | 67.6 | F |
| | Through | 185 | 182 | 98.2% | 117.1 | 59.9 | F |
| | Right Turn | 73 | 67 | 91.2% | 91.4 | 55.8 | F |
| | Subtotal | 443 | 426 | 96.3% | 125.2 | 63.4 | F |
| WB | Left Turn | 87 | 86 | 98.7% | 67.5 | 29.2 | E |
| | Through | 183 | 184 | 100.8% | 39.6 | 6.9 | D |
| | Right Turn | 200 | 203 | 101.4% | 14.0 | 2.1 | B |
| | Subtotal | 470 | 473 | 100.6% | 33.3 | 7.2 | C |
| Total | | 5,301 | 4,688 | 88.4% | 65.2 | 5.7 | E |

Intersection 3 Sepulveda Bl/Machado Rd

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 3 | 50 | 9 | 50 | 20 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 400 | 150 | 11 | 250 | 15 | 300 | 51 | 7% | 0% |
| | Through/Right | 400 | 175 | 11 | 275 | 12 | 325 | 37 | 0% | 0% |
| SB | Left Turn | 225 | 75 | 9 | 125 | 14 | 150 | 15 | 0% | 0% |
| | Through | 375 | 50 | 8 | 100 | 13 | 125 | 26 | 12% | 0% |
| | Right Turn | 50 | 25 | 1 | 25 | 7 | 50 | 16 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 3 | 50 | 7 | 50 | 10 | 0% | 0% |
| | Right Turn | 600 | 25 | 6 | 75 | 10 | 100 | 18 | 0% | 0% |

Intersection 4 Jefferson Bl/Machado Rd

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 100 | 12 | 200 | 22 | 225 | 34 | 1% | 0% |
| | Through | 600 | 25 | 10 | 75 | 56 | 125 | 134 | 0% | 0% |
| | Right Turn | 600 | 25 | 2 | 50 | 6 | 50 | 12 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 8 | 100 | 41 | 200 | 122 | 0% | 0% |
| | Through | 475 | 175 | 30 | 425 | 59 | 500 | 20 | 5% | 0% |
| | Through/Right | 475 | 175 | 33 | 425 | 73 | 500 | 27 | 0% | 1% |
| SB | Left Turn | 200 | 75 | 28 | 200 | 69 | 250 | 54 | 0% | 0% |
| | Through | 750 | 625 | 103 | 925 | 108 | 825 | 21 | 56% | 14% |
| | Right Turn | 375 | 350 | 80 | 625 | 32 | 475 | 0 | 0% | 0% |
| WB | Left Turn | 150 | 25 | 4 | 50 | 8 | 50 | 14 | 0% | 0% |
| | Through/Right | 150 | 50 | 4 | 100 | 8 | 125 | 21 | 0% | 0% |

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway

Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 5 | 75 | 12 | 100 | 30 | 4% | 0% |
| | Right Turn | 75 | 25 | 2 | 50 | 5 | 50 | 15 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 1 | 25 | 4 | 50 | 7 | 0% | 0% |
| | Through | 125 | 25 | 0 | 25 | 2 | 25 | 6 | 0% | 0% |
| | Through/Right | 125 | 25 | 1 | 25 | 5 | 25 | 14 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 2 | 25 | 6 | 50 | 10 | 0% | 0% |
| | Through | 125 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Right Turn | 125 | 25 | 1 | 25 | 4 | 25 | 10 | 0% | 0% |
| WB | Shared | 125 | 25 | 2 | 50 | 6 | 50 | 11 | 0% | 0% |

Intersection 6 Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 4 | 100 | 7 | 100 | 25 | 0% | 0% |
| | Right Turn | 225 | 25 | 2 | 25 | 18 | 50 | 51 | 0% | 0% |
| SB | Through | 175 | 125 | 8 | 175 | 13 | 200 | 28 | 0% | 1% |
| | Through/Right | 175 | 100 | 9 | 150 | 15 | 175 | 15 | 0% | 0% |
| WB | Left Turn | 475 | 475 | 21 | 550 | 17 | 525 | 17 | 52% | 22% |
| | Shared | 300 | 375 | 1 | 375 | 9 | 375 | 0 | 31% | 0% |
| O | | | | | | | | | | |

Intersection 7 Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 150 | 5 | 175 | 6 | 150 | 0 | 20% | 20% |
| | Through | 150 | 225 | 11 | 275 | 19 | 250 | 16 | 52% | 51% |
| | Right Turn | 50 | 50 | 8 | 100 | 7 | 75 | 1 | 3% | 0% |
| NB | Left Turn | 275 | 200 | 16 | 300 | 15 | 250 | 0 | 0% | 0% |
| | Through | 275 | 350 | 6 | 375 | 13 | 375 | 15 | 47% | 47% |
| | Through/Right | 250 | 250 | 1 | 275 | 4 | 275 | 0 | 26% | 9% |
| SB | Left Turn | 175 | 50 | 9 | 100 | 14 | 150 | 36 | 0% | 0% |
| | Through | 225 | 225 | 11 | 300 | 13 | 325 | 19 | 3% | 6% |
| | Through/Right | 225 | 175 | 13 | 275 | 14 | 300 | 25 | 0% | 2% |
| WB | Left Turn | 100 | 100 | 8 | 150 | 12 | 150 | 0 | 14% | 0% |
| | Through | 325 | 150 | 12 | 250 | 29 | 300 | 46 | 21% | 0% |
| | Through/Right | 325 | 100 | 10 | 175 | 17 | 200 | 30 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl

12/08/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|-------|------|------|------|
| Lane Group Flow (vph) | 424 | 430 | 121 | 870 | 38 | 1858 | 67 | 845 | 632 |
| v/c Ratio | 0.62 | 0.61 | 0.17 | 1.42dr | 0.37 | 1.05 | 0.58 | 0.44 | 0.57 |
| Control Delay | 58.0 | 57.5 | 51.7 | 58.5 | 84.5 | 83.0 | 93.5 | 39.0 | 11.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.6 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.0 | 57.5 | 51.7 | 58.5 | 84.5 | 104.6 | 93.5 | 39.0 | 11.1 |
| Queue Length 50th (ft) | 231 | 233 | 53 | 277 | 39 | ~799 | 70 | 255 | 215 |
| Queue Length 95th (ft) | 298 | 301 | 86 | 343 | 84 | #938 | #142 | 313 | 328 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 831 | 855 | 803 | 1159 | 103 | 1773 | 115 | 1931 | 1178 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 213 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.50 | 0.15 | 0.75 | 0.37 | 1.19 | 0.58 | 0.44 | 0.54 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 560 | 240 | 11 | 115 | 254 | 573 | 36 | 1681 | 85 | 64 | 803 | 600 |
| Future Volume (veh/h) | 560 | 240 | 11 | 115 | 254 | 573 | 36 | 1681 | 85 | 64 | 803 | 600 |
| 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 | 508 | 366 | 0 | 121 | 267 | 0 | 38 | 1769 | 89 | 67 | 845 | 632 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 674 | 707 | | 405 | 598 | | 96 | 2087 | 105 | 133 | 2288 | 1010 |
| Arrive On Green | 0.19 | 0.19 | 0.00 | 0.12 | 0.12 | 0.00 | 0.05 | 0.42 | 0.42 | 0.07 | 0.45 | 0.45 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4979 | 250 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 508 | 366 | 0 | 121 | 267 | 0 | 38 | 1209 | 649 | 67 | 845 | 632 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1825 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 16.1 | 10.5 | 0.0 | 3.8 | 5.8 | 0.0 | 2.5 | 38.2 | 38.3 | 4.3 | 13.1 | 28.7 |
| Cycle Q Clear(g_c), s | 16.1 | 10.5 | 0.0 | 3.8 | 5.8 | 0.0 | 2.5 | 38.2 | 38.3 | 4.3 | 13.1 | 28.7 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 674 | 707 | | 405 | 598 | | 96 | 1427 | 765 | 133 | 2288 | 1010 |
| V/C Ratio(X) | 0.75 | 0.52 | | 0.30 | 0.45 | | 0.40 | 0.85 | 0.85 | 0.50 | 0.37 | 0.63 |
| Avail Cap(c_a), veh/h | 1252 | 1315 | | 1041 | 1538 | | 134 | 1535 | 823 | 149 | 2354 | 1031 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.8 | 43.6 | 0.0 | 48.3 | 49.2 | 0.0 | 54.6 | 31.3 | 31.3 | 53.2 | 21.8 | 13.1 |
| Incr Delay (d2), s/veh | 1.7 | 0.6 | 0.0 | 0.4 | 0.5 | 0.0 | 2.6 | 4.4 | 7.9 | 2.9 | 0.1 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.3 | 4.9 | 0.0 | 1.7 | 2.5 | 0.0 | 1.2 | 16.0 | 18.0 | 2.0 | 5.2 | 16.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.6 | 44.1 | 0.0 | 48.7 | 49.7 | 0.0 | 57.3 | 35.6 | 39.2 | 56.1 | 21.9 | 14.2 |
| LnGrp LOS | D | D | | D | D | | E | D | D | E | C | B |
| Approach Vol, veh/h | | 874 | A | | 388 | A | | 1896 | | | 1544 | |
| Approach Delay, s/veh | | 46.1 | | | 49.4 | | | 37.3 | | | 20.3 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.9 | 59.8 | | 28.9 | 15.1 | 56.5 | | 19.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 55.1 | | 42.0 | * 10 | * 54 | | 36.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 30.7 | | 18.1 | 6.3 | 40.3 | | 7.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | | 4.5 | 0.0 | 9.8 | | 2.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 34.3 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

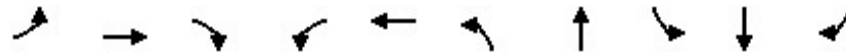
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 151 | 851 | 175 | 12 | 886 | 298 | 257 | 24 | 99 | 108 |
| v/c Ratio | 0.61 | 0.37 | 0.16 | 0.07 | 0.61 | 0.55 | 0.42 | 0.10 | 0.27 | 0.26 |
| Control Delay | 53.2 | 19.5 | 2.8 | 51.4 | 32.9 | 45.3 | 32.5 | 46.7 | 39.0 | 5.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.2 | 19.5 | 2.8 | 51.4 | 32.9 | 45.3 | 32.5 | 46.7 | 39.0 | 5.2 |
| Queue Length 50th (ft) | 82 | 104 | 6 | 6 | 156 | 83 | 108 | 12 | 51 | 0 |
| Queue Length 95th (ft) | 189 | 228 | 45 | 31 | 278 | 169 | 270 | 47 | 122 | 29 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 596 | 3949 | 1338 | 223 | 2849 | 1081 | 935 | 285 | 675 | 659 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.22 | 0.13 | 0.05 | 0.31 | 0.28 | 0.27 | 0.08 | 0.15 | 0.16 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↗ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 143 | 808 | 166 | 11 | 779 | 63 | 283 | 219 | 25 | 23 | 94 | 103 |
| Future Volume (veh/h) | 143 | 808 | 166 | 11 | 779 | 63 | 283 | 219 | 25 | 23 | 94 | 103 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 151 | 851 | 175 | 12 | 820 | 66 | 298 | 231 | 0 | 24 | 99 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 187 | 2044 | 870 | 46 | 1548 | 124 | 514 | 485 | | 117 | 321 | |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.03 | 0.32 | 0.32 | 0.15 | 0.26 | 0.00 | 0.07 | 0.17 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4819 | 386 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 151 | 851 | 175 | 12 | 578 | 308 | 298 | 231 | 0 | 24 | 99 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1801 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 7.2 | 10.5 | 4.9 | 0.6 | 12.1 | 12.2 | 7.0 | 9.1 | 0.0 | 1.1 | 4.0 | 0.0 |
| Cycle Q Clear(g_c), s | 7.2 | 10.5 | 4.9 | 0.6 | 12.1 | 12.2 | 7.0 | 9.1 | 0.0 | 1.1 | 4.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.21 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 187 | 2044 | 870 | 46 | 1093 | 578 | 514 | 485 | | 117 | 321 | |
| V/C Ratio(X) | 0.81 | 0.42 | 0.20 | 0.26 | 0.53 | 0.53 | 0.58 | 0.48 | | 0.21 | 0.31 | |
| Avail Cap(c_a), veh/h | 653 | 4310 | 1574 | 245 | 2093 | 1107 | 1183 | 1035 | | 312 | 737 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 38.2 | 18.8 | 10.0 | 41.7 | 24.2 | 24.3 | 34.6 | 27.3 | 0.0 | 38.6 | 31.6 | 0.0 |
| Incr Delay (d2), s/veh | 3.1 | 0.3 | 0.2 | 1.1 | 0.9 | 1.6 | 0.4 | 1.5 | 0.0 | 0.3 | 1.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.3 | 4.0 | 1.6 | 0.3 | 4.9 | 5.3 | 2.9 | 4.2 | 0.0 | 0.5 | 1.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 41.3 | 19.1 | 10.2 | 42.8 | 25.1 | 25.9 | 35.0 | 28.9 | 0.0 | 38.9 | 32.8 | 0.0 |
| LnGrp LOS | D | B | B | D | C | C | D | C | | D | C | |
| Approach Vol, veh/h | | 1177 | | | 898 | | | 529 | A | | 123 | A |
| Approach Delay, s/veh | | 20.6 | | | 25.6 | | | 32.3 | | | 34.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.2 | 34.3 | 18.1 | 21.7 | 6.3 | 41.3 | 10.4 | 29.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 32.0 | 53.7 | * 30 | * 34 | 12.0 | 73.7 | * 15 | 48.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.2 | 14.2 | 9.0 | 6.0 | 2.6 | 12.5 | 3.1 | 11.1 | | | | |
| Green Ext Time (p_c), s | 0.2 | 13.8 | 0.5 | 0.9 | 0.0 | 18.1 | 0.0 | 2.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 25.1 |
| HCM 6th LOS | C |

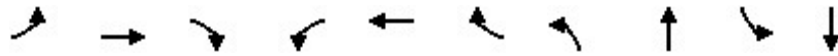
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

12/08/2020

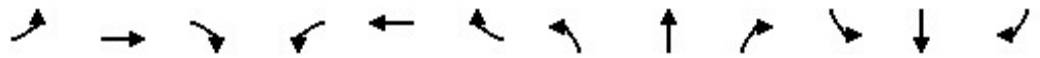


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 29 | 184 | 68 | 96 | 362 | 329 | 114 | 1600 | 186 | 778 |
| v/c Ratio | 0.18 | 0.34 | 0.15 | 0.30 | 0.49 | 0.58 | 0.44 | 0.64 | 0.68 | 0.31 |
| Control Delay | 53.3 | 46.0 | 0.7 | 52.9 | 45.0 | 17.6 | 58.9 | 25.5 | 66.6 | 19.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.3 | 46.0 | 0.7 | 52.9 | 45.0 | 17.6 | 58.9 | 25.5 | 66.6 | 19.5 |
| Queue Length 50th (ft) | 21 | 70 | 0 | 36 | 145 | 89 | 44 | 309 | 73 | 119 |
| Queue Length 95th (ft) | 52 | 89 | 0 | 63 | 164 | 124 | 75 | 480 | 112 | 197 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 162 | 1002 | 461 | 323 | 973 | 569 | 257 | 2481 | 286 | 2510 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.18 | 0.15 | 0.30 | 0.37 | 0.58 | 0.44 | 0.64 | 0.65 | 0.31 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | ↗ | ↘↗ | ↑↑↘ | | ↘↗ | ↑↑↘ | |
| Traffic Volume (veh/h) | 28 | 175 | 65 | 91 | 344 | 313 | 108 | 1481 | 39 | 177 | 724 | 15 |
| Future Volume (veh/h) | 28 | 175 | 65 | 91 | 344 | 313 | 108 | 1481 | 39 | 177 | 724 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.96 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 29 | 184 | 68 | 96 | 362 | 329 | 114 | 1559 | 41 | 186 | 762 | 16 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 101 | 701 | 414 | 276 | 822 | 662 | 253 | 1684 | 44 | 679 | 2346 | 49 |
| Arrive On Green | 0.06 | 0.20 | 0.20 | 0.08 | 0.23 | 0.23 | 0.07 | 0.33 | 0.33 | 0.20 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1781 | 3554 | 1510 | 3456 | 3554 | 1516 | 3456 | 5109 | 134 | 3456 | 5144 | 108 |
| Grp Volume(v), veh/h | 29 | 184 | 68 | 96 | 362 | 329 | 114 | 1039 | 561 | 186 | 504 | 274 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1510 | 1728 | 1777 | 1516 | 1728 | 1702 | 1839 | 1728 | 1702 | 1848 |
| Q Serve(g_s), s | 1.9 | 5.3 | 2.9 | 3.2 | 10.5 | 3.2 | 3.8 | 35.3 | 35.3 | 5.5 | 11.3 | 11.4 |
| Cycle Q Clear(g_c), s | 1.9 | 5.3 | 2.9 | 3.2 | 10.5 | 3.2 | 3.8 | 35.3 | 35.3 | 5.5 | 11.3 | 11.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 101 | 701 | 414 | 276 | 822 | 662 | 253 | 1122 | 606 | 679 | 1553 | 843 |
| V/C Ratio(X) | 0.29 | 0.26 | 0.16 | 0.35 | 0.44 | 0.50 | 0.45 | 0.93 | 0.93 | 0.27 | 0.32 | 0.33 |
| Avail Cap(c_a), veh/h | 163 | 1007 | 544 | 288 | 977 | 728 | 259 | 1251 | 676 | 679 | 1553 | 843 |
| 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(l) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | 54.3 | 40.8 | 17.1 | 52.2 | 39.5 | 11.5 | 53.3 | 38.8 | 38.8 | 41.0 | 20.8 | 20.8 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.1 | 0.3 | 0.1 | 0.2 | 0.5 | 14.0 | 22.2 | 0.1 | 0.5 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 2.3 | 1.2 | 1.4 | 4.6 | 4.1 | 1.7 | 16.7 | 19.5 | 2.4 | 4.6 | 5.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 40.8 | 17.2 | 52.5 | 39.6 | 11.7 | 53.7 | 52.8 | 61.0 | 41.0 | 21.3 | 21.8 |
| LnGrp LOS | D | D | B | D | D | B | D | D | E | D | C | C |
| Approach Vol, veh/h | | 281 | | | 787 | | | 1714 | | | 964 | |
| Approach Delay, s/veh | | 36.6 | | | 29.5 | | | 55.6 | | | 25.3 | |
| Approach LOS | | D | | | C | | | E | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.2 | 60.7 | 15.5 | 29.6 | 29.6 | 45.4 | 11.4 | 33.7 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | * 45 | * 10 | * 34 | 10.0 | * 44 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.8 | 13.4 | 5.2 | 7.3 | 7.5 | 37.3 | 3.9 | 12.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.0 | 0.3 | 0.0 | 2.2 | 0.0 | 0.7 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 40.9 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

12/08/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 347 | 301 | 64 | 1589 | 188 | 32 | 501 | 102 |
| v/c Ratio | 0.94 | 0.83 | 0.12 | 0.69 | 0.18 | 0.28 | 0.22 | 0.10 |
| Control Delay | 74.7 | 59.6 | 3.2 | 10.4 | 2.0 | 19.4 | 9.7 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.7 | 59.6 | 3.2 | 10.4 | 2.0 | 19.4 | 9.7 | 2.8 |
| Queue Length 50th (ft) | 256 | 215 | 3 | 387 | 0 | 10 | 77 | 2 |
| Queue Length 95th (ft) | 350 | 297 | m3 | 717 | 0 | 40 | 125 | 27 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 471 | 461 | 555 | 2298 | 1046 | 116 | 2298 | 1060 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.65 | 0.12 | 0.69 | 0.18 | 0.28 | 0.22 | 0.10 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | ↗ | ↕ | ↖ | ↗ | ↕ | ↖ |
| Traffic Volume (veh/h) | 65 | 212 | 53 | 56 | 191 | 39 | 61 | 1510 | 179 | 30 | 476 | 97 |
| Future Volume (veh/h) | 65 | 212 | 53 | 56 | 191 | 39 | 61 | 1510 | 179 | 30 | 476 | 97 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 68 | 223 | 56 | 59 | 201 | 41 | 64 | 1589 | 188 | 32 | 501 | 102 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 94 | 260 | 61 | 88 | 262 | 50 | 539 | 2291 | 1022 | 156 | 2291 | 1022 |
| Arrive On Green | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| Sat Flow, veh/h | 219 | 982 | 231 | 196 | 992 | 187 | 816 | 3554 | 1585 | 268 | 3554 | 1585 |
| Grp Volume(v), veh/h | 347 | 0 | 0 | 301 | 0 | 0 | 64 | 1589 | 188 | 32 | 501 | 102 |
| Grp Sat Flow(s),veh/h/ln | 1432 | 0 | 0 | 1375 | 0 | 0 | 816 | 1777 | 1585 | 268 | 1777 | 1585 |
| Q Serve(g_s), s | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 34.5 | 5.7 | 10.5 | 7.0 | 2.9 |
| Cycle Q Clear(g_c), s | 28.8 | 0.0 | 0.0 | 24.8 | 0.0 | 0.0 | 11.2 | 34.5 | 5.7 | 45.0 | 7.0 | 2.9 |
| Prop In Lane | 0.20 | | 0.16 | 0.20 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 415 | 0 | 0 | 400 | 0 | 0 | 539 | 2291 | 1022 | 156 | 2291 | 1022 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.00 | 0.75 | 0.00 | 0.00 | 0.12 | 0.69 | 0.18 | 0.21 | 0.22 | 0.10 |
| Avail Cap(c_a), veh/h | 523 | 0 | 0 | 508 | 0 | 0 | 539 | 2291 | 1022 | 156 | 2291 | 1022 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.6 | 0.0 | 0.0 | 40.6 | 0.0 | 0.0 | 11.1 | 13.7 | 8.6 | 28.2 | 8.8 | 8.1 |
| Incr Delay (d2), s/veh | 7.7 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.4 | 1.8 | 0.4 | 1.4 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.9 | 0.0 | 0.0 | 8.7 | 0.0 | 0.0 | 0.8 | 12.8 | 1.9 | 0.7 | 2.5 | 1.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.3 | 0.0 | 0.0 | 43.9 | 0.0 | 0.0 | 11.6 | 15.5 | 9.0 | 29.5 | 8.9 | 8.2 |
| LnGrp LOS | D | A | A | D | A | A | B | B | A | C | A | A |
| Approach Vol, veh/h | | 347 | | | 301 | | | 1841 | | | 635 | |
| Approach Delay, s/veh | | 50.3 | | | 43.9 | | | 14.7 | | | 9.8 | |
| Approach LOS | | D | | | D | | | B | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 83.1 | | 36.9 | | 83.1 | | 36.9 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 69.3 | | * 40 | | 69.3 | | * 40 | | | | |
| Max Q Clear Time (g_c+I1), s | | 36.5 | | 30.8 | | 47.0 | | 26.8 | | | | |
| Green Ext Time (p_c), s | | 26.5 | | 1.0 | | 7.6 | | 1.0 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 20.5 |
| HCM 6th LOS | C |

Notes

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

Opening Year (2024) PM

Queues

1: Culver Blvd & Sepulveda Blvd

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 240 | 1246 | 92 | 239 | 1347 | 125 | 783 | 178 | 55 | 1143 | 280 |
| v/c Ratio | 0.71 | 1.01 | 0.14 | 0.73 | 0.77 | 0.36 | 0.65 | 0.28 | 0.18 | 1.00 | 0.47 |
| Control Delay | 64.9 | 66.9 | 0.4 | 66.8 | 38.5 | 53.8 | 37.3 | 5.8 | 33.1 | 67.9 | 15.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.9 | 66.9 | 0.4 | 66.8 | 38.5 | 53.8 | 37.3 | 5.8 | 33.1 | 67.9 | 15.7 |
| Queue Length 50th (ft) | 94 | ~513 | 0 | 94 | 336 | 47 | 278 | 2 | 30 | ~465 | 66 |
| Queue Length 95th (ft) | #141 | #670 | 0 | #146 | 395 | 78 | 348 | 52 | 61 | #621 | 148 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 337 | 1235 | 659 | 326 | 1746 | 343 | 1235 | 646 | 313 | 1141 | 600 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 1.01 | 0.14 | 0.73 | 0.77 | 0.36 | 0.63 | 0.28 | 0.18 | 1.00 | 0.47 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

12/07/2020

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 228 | 1184 | 87 | 227 | 1208 | 71 | 119 | 744 | 169 | 52 | 1086 | 266 |
| Future Volume (veh/h) | 228 | 1184 | 87 | 227 | 1208 | 71 | 119 | 744 | 169 | 52 | 1086 | 266 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 0.99 | | 0.96 |
| 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 | 240 | 1246 | 92 | 239 | 1272 | 75 | 125 | 783 | 178 | 55 | 1143 | 280 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 328 | 1241 | 538 | 1493 | 3437 | 203 | 341 | 1035 | 442 | 308 | 1146 | 491 |
| Arrive On Green | 0.09 | 0.35 | 0.35 | 0.43 | 0.70 | 0.68 | 0.10 | 0.29 | 0.29 | 0.12 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1541 | 3456 | 4924 | 290 | 3456 | 3554 | 1517 | 1781 | 3554 | 1524 |
| Grp Volume(v), veh/h | 240 | 1246 | 92 | 239 | 879 | 468 | 125 | 783 | 178 | 55 | 1143 | 280 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1541 | 1728 | 1702 | 1811 | 1728 | 1777 | 1517 | 1781 | 1777 | 1524 |
| Q Serve(g_s), s | 8.1 | 41.9 | 6.1 | 5.1 | 12.6 | 12.7 | 4.1 | 24.0 | 11.3 | 0.0 | 38.5 | 18.3 |
| Cycle Q Clear(g_c), s | 8.1 | 41.9 | 6.1 | 5.1 | 12.6 | 12.7 | 4.1 | 24.0 | 11.3 | 0.0 | 38.5 | 18.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 328 | 1241 | 538 | 1493 | 2376 | 1264 | 341 | 1035 | 442 | 308 | 1146 | 491 |
| V/C Ratio(X) | 0.73 | 1.00 | 0.17 | 0.16 | 0.37 | 0.37 | 0.37 | 0.76 | 0.40 | 0.18 | 1.00 | 0.57 |
| Avail Cap(c_a), veh/h | 340 | 1241 | 538 | 1493 | 2376 | 1264 | 346 | 1146 | 489 | 308 | 1146 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.8 | 39.1 | 41.1 | 20.8 | 7.4 | 7.5 | 50.6 | 38.6 | 34.1 | 44.4 | 40.6 | 33.7 |
| Incr Delay (d2), s/veh | 9.5 | 26.6 | 0.7 | 0.0 | 0.4 | 0.8 | 0.2 | 3.4 | 1.3 | 0.1 | 25.9 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.0 | 22.5 | 2.4 | 2.1 | 4.4 | 4.9 | 1.8 | 10.9 | 4.3 | 1.5 | 20.7 | 7.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 62.3 | 65.6 | 41.8 | 20.8 | 7.8 | 8.3 | 50.8 | 42.1 | 35.4 | 44.5 | 66.5 | 36.3 |
| LnGrp LOS | E | F | D | C | A | A | D | D | D | D | E | D |
| Approach Vol, veh/h | | 1578 | | | 1586 | | | 1086 | | | 1478 | |
| Approach Delay, s/veh | | 63.7 | | | 9.9 | | | 42.0 | | | 60.0 | |
| Approach LOS | | E | | | A | | | D | | | E | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 89.0 | 19.6 | 39.0 | 58.5 | 45.9 | 15.8 | 42.7 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.4 | * 40 | * 11 | * 37 | * 11 | * 40 | 11.0 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.1 | 14.7 | 2.0 | 26.0 | 7.1 | 43.9 | 6.1 | 40.5 | | | | |
| Green Ext Time (p_c), s | 0.2 | 17.0 | 0.0 | 6.6 | 0.2 | 0.0 | 0.1 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | | 43.7 | | | | | | | |
| HCM 6th LOS | | | | | D | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 159 | 838 | 300 | 52 | 655 | 635 | 335 | 1024 | 398 | 662 | 203 |
| v/c Ratio | 0.91 | 0.81 | 0.39 | 0.32 | 0.71 | 0.87 | 0.71 | 0.86 | 0.69 | 0.51 | 0.29 |
| Control Delay | 101.0 | 47.2 | 8.6 | 56.7 | 45.0 | 32.3 | 29.9 | 30.0 | 54.1 | 32.0 | 5.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 101.0 | 47.2 | 8.6 | 56.7 | 45.0 | 32.3 | 29.9 | 30.0 | 54.1 | 32.0 | 5.0 |
| Queue Length 50th (ft) | 124 | 323 | 47 | 38 | 240 | 248 | 117 | 436 | 151 | 212 | 0 |
| Queue Length 95th (ft) | #254 | #404 | 104 | 80 | 305 | #412 | m116 | #530 | 206 | 283 | 52 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 177 | 1032 | 810 | 169 | 967 | 728 | 560 | 1196 | 575 | 1308 | 698 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.81 | 0.37 | 0.31 | 0.68 | 0.87 | 0.60 | 0.86 | 0.69 | 0.51 | 0.29 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Jefferson Blvd & Overland Ave

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 151 | 796 | 285 | 49 | 622 | 603 | 318 | 929 | 44 | 378 | 629 | 193 |
| Future Volume (veh/h) | 151 | 796 | 285 | 49 | 622 | 603 | 318 | 929 | 44 | 378 | 629 | 193 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 159 | 838 | 300 | 52 | 655 | 635 | 335 | 978 | 0 | 398 | 662 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 1023 | 623 | 134 | 936 | 689 | 419 | 1127 | | 626 | 1358 | |
| Arrive On Green | 0.10 | 0.29 | 0.28 | 0.08 | 0.26 | 0.26 | 0.12 | 0.32 | 0.00 | 0.18 | 0.38 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1535 | 1781 | 3554 | 1552 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 159 | 838 | 300 | 52 | 655 | 635 | 335 | 978 | 0 | 398 | 662 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1535 | 1781 | 1777 | 1552 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 10.6 | 26.4 | 17.4 | 3.3 | 20.0 | 15.9 | 11.3 | 31.1 | 0.0 | 12.8 | 17.0 | 0.0 |
| Cycle Q Clear(g_c), s | 10.6 | 26.4 | 17.4 | 3.3 | 20.0 | 15.9 | 11.3 | 31.1 | 0.0 | 12.8 | 17.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 178 | 1023 | 623 | 134 | 936 | 689 | 419 | 1127 | | 626 | 1358 | |
| V/C Ratio(X) | 0.89 | 0.82 | 0.48 | 0.39 | 0.70 | 0.92 | 0.80 | 0.87 | | 0.64 | 0.49 | |
| Avail Cap(c_a), veh/h | 178 | 1023 | 623 | 171 | 971 | 705 | 564 | 1158 | | 626 | 1358 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.4 | 39.8 | 26.7 | 52.8 | 39.9 | 14.8 | 51.3 | 38.6 | 0.0 | 45.5 | 28.2 | 0.0 |
| Incr Delay (d2), s/veh | 37.8 | 6.0 | 1.2 | 0.7 | 2.9 | 18.1 | 4.1 | 9.1 | 0.0 | 1.6 | 1.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.6 | 12.3 | 6.6 | 1.5 | 9.1 | 12.4 | 5.1 | 14.8 | 0.0 | 5.6 | 7.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 91.2 | 45.8 | 27.9 | 53.5 | 42.8 | 32.8 | 55.4 | 47.7 | 0.0 | 47.1 | 29.4 | 0.0 |
| LnGrp LOS | F | D | C | D | D | C | E | D | | D | C | |
| Approach Vol, veh/h | | 1297 | | | 1342 | | | 1313 | A | | 1060 | A |
| Approach Delay, s/veh | | 47.2 | | | 38.5 | | | 49.7 | | | 36.1 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 26.3 | 42.1 | 13.1 | 38.5 | 18.6 | 49.8 | 16.0 | 35.6 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 18.8 | * 37 | 11.5 | 31.5 | 18.7 | * 38 | 12.0 | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.8 | 33.1 | 5.3 | 28.4 | 13.3 | 19.0 | 12.6 | 22.0 | | | | |
| Green Ext Time (p_c), s | 0.4 | 3.1 | 0.0 | 2.5 | 0.3 | 7.4 | 0.0 | 6.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 43.2 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | LOS |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | |
| NB | Left Turn | 4 | 3 | 77.5% | 34.2 | 36.3 | C |
| | Through | 826 | 778 | 94.2% | 10.7 | 2.8 | B |
| | Right Turn | 68 | 61 | 90.0% | 5.9 | 3.1 | A |
| | Subtotal | 898 | 842 | 93.8% | 10.5 | 2.8 | B |
| SB | Left Turn | 244 | 242 | 99.1% | 96.4 | 62.9 | F |
| | Through | 1,201 | 1,153 | 96.0% | 98.9 | 89.9 | F |
| | Right Turn | 4 | 5 | 125.0% | 98.2 | 108.7 | F |
| | Subtotal | 1,449 | 1,400 | 96.6% | 98.4 | 84.5 | F |
| EB | Left Turn | | | | | | |
| | Through | 5 | 5 | 94.0% | 21.0 | 38.6 | C |
| | Right Turn | 1 | 1 | 100.0% | 12.3 | 31.0 | B |
| | Subtotal | 6 | 6 | 95.0% | 19.7 | 28.9 | B |
| WB | Left Turn | 29 | 25 | 86.6% | 181.9 | 160.2 | F |
| | Through | 3 | 3 | 100.0% | 187.1 | 296.2 | F |
| | Right Turn | 239 | 238 | 99.7% | 7.6 | 0.9 | A |
| | Subtotal | 271 | 266 | 98.3% | 22.6 | 15.3 | C |
| Total | | 2,624 | 2,515 | 95.8% | 59.3 | 44.5 | E |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | LOS |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | |
| NB | Left Turn | 30 | 27 | 89.3% | 17.9 | 9.0 | B |
| | Through | 1,223 | 1,123 | 91.8% | 7.5 | 1.8 | A |
| | Right Turn | 52 | 48 | 93.1% | 4.7 | 2.9 | A |
| | Subtotal | 1,305 | 1,198 | 91.8% | 7.7 | 1.7 | A |
| SB | Left Turn | 81 | 75 | 93.0% | 41.5 | 16.4 | D |
| | Through | 820 | 769 | 93.8% | 49.0 | 40.7 | D |
| | Right Turn | 193 | 190 | 98.5% | 12.0 | 11.7 | B |
| | Subtotal | 1,094 | 1,034 | 94.5% | 41.7 | 33.7 | D |
| EB | Left Turn | 198 | 192 | 96.7% | 41.5 | 7.1 | D |
| | Through | 97 | 97 | 99.9% | 30.7 | 8.1 | C |
| | Right Turn | 22 | 21 | 96.8% | 13.8 | 10.4 | B |
| | Subtotal | 317 | 310 | 97.7% | 36.8 | 6.6 | D |
| WB | Left Turn | 31 | 29 | 91.9% | 37.3 | 17.3 | D |
| | Through | 48 | 52 | 107.3% | 38.5 | 7.4 | D |
| | Right Turn | 1 | 1 | 110.0% | 3.6 | 11.3 | A |
| | Subtotal | 80 | 81 | 101.4% | 37.4 | 8.1 | D |
| Total | | 2,796 | 2,623 | 93.8% | 25.6 | 13.1 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 25 | 21 | 84.8% | 178.5 | 103.3 | F |
| | Through | 874 | 823 | 94.2% | 1.1 | 1.3 | A |
| | Right Turn | 2 | 2 | 115.0% | 0.0 | 0.0 | A |
| | Subtotal | 901 | 847 | 94.0% | 4.4 | 3.2 | A |
| SB | Left Turn | 4 | 4 | 90.0% | 18.1 | 36.4 | C |
| | Through | 1,155 | 1,090 | 94.4% | 60.7 | 31.8 | F |
| | Right Turn | 72 | 68 | 94.9% | 46.1 | 26.9 | E |
| | Subtotal | 1,231 | 1,162 | 94.4% | 59.8 | 31.5 | F |
| EB | Left Turn | 16 | 11 | 67.5% | 394.6 | 313.2 | F |
| | Through | | | | | | |
| | Right Turn | 11 | 10 | 91.8% | 272.3 | 285.9 | F |
| | Subtotal | 27 | 21 | 77.4% | 203.1 | 240.6 | F |
| WB | Left Turn | 1 | 0 | 0.0% | 85.8 | 271.3 | F |
| | Through | 1 | 1 | 100.0% | 191.8 | 315.1 | F |
| | Right Turn | 8 | 8 | 98.8% | 132.2 | 225.7 | F |
| | Subtotal | 10 | 9 | 89.0% | 22.3 | 44.9 | C |
| Total | | 2,169 | 2,038 | 94.0% | 36.2 | 17.7 | E |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 857 | 810 | 94.5% | 3.9 | 0.4 | A |
| | Right Turn | 1,305 | 1,197 | 91.7% | 3.8 | 0.2 | A |
| | Subtotal | 2,162 | 2,007 | 92.8% | 3.8 | 0.2 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,180 | 1,076 | 91.2% | 120.6 | 30.6 | F |
| | Right Turn | 14 | 13 | 91.4% | 98.7 | 30.1 | F |
| | Subtotal | 1,194 | 1,089 | 91.2% | 120.3 | 30.4 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 854 | 773 | 90.5% | 119.2 | 32.7 | F |
| | Through | 7 | 7 | 104.3% | 114.2 | 45.8 | F |
| | Right Turn | 12 | 12 | 96.7% | 91.7 | 62.6 | F |
| | Subtotal | 873 | 792 | 90.7% | 119.0 | 32.8 | F |
| Total | | 4,229 | 3,888 | 91.9% | 60.3 | 12.0 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year (2024)
PM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 91 | 85 | 93.2% | 111.8 | 8.9 | F |
| | Through | 1,882 | 1,736 | 92.2% | 101.1 | 6.9 | F |
| | Right Turn | 59 | 52 | 88.0% | 102.3 | 5.3 | F |
| | Subtotal | 2,032 | 1,873 | 92.2% | 101.7 | 6.8 | F |
| SB | Left Turn | 124 | 114 | 92.3% | 61.6 | 8.1 | E |
| | Through | 1,757 | 1,590 | 90.5% | 33.2 | 2.9 | C |
| | Right Turn | 153 | 139 | 91.1% | 24.1 | 4.6 | C |
| | Subtotal | 2,034 | 1,843 | 90.6% | 34.3 | 3.1 | C |
| EB | Left Turn | 180 | 176 | 97.8% | 161.1 | 64.3 | F |
| | Through | 221 | 209 | 94.8% | 145.1 | 64.3 | F |
| | Right Turn | 243 | 246 | 101.3% | 131.2 | 62.3 | F |
| | Subtotal | 644 | 632 | 98.1% | 144.1 | 63.1 | F |
| WB | Left Turn | 61 | 65 | 106.6% | 70.8 | 16.7 | E |
| | Through | 150 | 147 | 98.3% | 34.8 | 8.3 | C |
| | Right Turn | 100 | 97 | 96.9% | 10.9 | 2.5 | B |
| | Subtotal | 311 | 309 | 99.5% | 35.9 | 7.9 | D |
| Total | | 5,021 | 4,657 | 92.7% | 77.8 | 10.2 | E |

Intersection 3 Sepulveda Bl/Machado Rd

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|--------------------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 1 | 25 | 6 | 25 | 16 | 0% | 0% |
| | Left Turn | 150 | 25 | 0 | 25 | 2 | 25 | 8 | 0% | 0% |
| | Through Through/Right | 400 400 | 75 75 | 20 20 | 175 200 | 45 43 | 250 275 | 43 31 | 2% 0% | 0% 0% |
| SB | Left Turn | 225 | 100 | 34 | 225 | 65 | 225 | 26 | 0% | 0% |
| | Through | 375 | 200 | 81 | 425 | 142 | 425 | 57 | 31% | 14% |
| | Right Turn | 50 | 25 | 1 | 25 | 5 | 50 | 9 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 14 | 75 | 32 | 100 | 29 | 5% | 0% |
| | Right Turn | 600 | 25 | 10 | 75 | 45 | 100 | 78 | 0% | 0% |

Intersection 4 Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 125 | 9 | 225 | 15 | 225 | 1 | 7% | 0% |
| | Through | 600 | 100 | 23 | 225 | 77 | 375 | 97 | 0% | 0% |
| | Right Turn | 600 | 25 | 5 | 50 | 33 | 75 | 98 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 4 | 50 | 7 | 75 | 11 | 0% | 0% |
| | Through | 475 | 75 | 8 | 150 | 23 | 200 | 58 | 0% | 0% |
| | Through/Right | 475 | 75 | 8 | 150 | 18 | 175 | 47 | 0% | 0% |
| SB | Left Turn | 200 | 75 | 14 | 150 | 44 | 175 | 52 | 0% | 0% |
| | Through | 750 | 150 | 65 | 325 | 162 | 450 | 210 | 10% | 0% |
| | Right Turn | 375 | 75 | 37 | 175 | 128 | 225 | 144 | 0% | 0% |
| WB | Left Turn | 150 | 50 | 4 | 75 | 9 | 100 | 18 | 0% | 0% |
| | Through/Right | 150 | 50 | 6 | 100 | 13 | 125 | 21 | 0% | 0% |

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|--------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 75 | 50 | 175 | 111 | 225 | 129 | 33% | 0% |
| | Right Turn | 75 | 25 | 3 | 50 | 8 | 75 | 21 | 0% | 0% |
| NB | Left Turn | 125 | 50 | 9 | 75 | 17 | 100 | 19 | 2% | 1% |
| | Through | 125 | 25 | 10 | 75 | 51 | 100 | 84 | 3% | 3% |
| SB | Left Turn | 125 | 25 | 1 | 25 | 11 | 50 | 32 | 0% | 0% |
| | Through | 400 | 225 | 88 | 525 | 148 | 475 | 52 | 28% | 17% |
| | Right Turn | 125 | 50 | 14 | 125 | 32 | 125 | 0 | 0% | 0% |
| WB | Shared | 125 | 25 | 13 | 75 | 33 | 75 | 41 | 0% | 3% |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 25 | 6 | 75 | 9 | 75 | 16 | 0% | 0% |
| | Right Turn | 225 | 25 | 2 | 25 | 15 | 50 | 42 | 0% | 0% |
| SB | Through | 175 | 250 | 4 | 275 | 10 | 300 | 12 | 0% | 70% |
| | Through/Right | 175 | 250 | 5 | 275 | 10 | 275 | 14 | 0% | 63% |
| WB | Left Turn | 475 | 325 | 52 | 500 | 91 | 475 | 57 | 18% | 7% |
| | Shared | 300 | 250 | 23 | 350 | 24 | 325 | 0 | 11% | 0% |
| O | | | | | | | | | | |

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 7 | 250 | 9 | 200 | 0 | 19% | 8% |
| | Through | 200 | 275 | 5 | 300 | 14 | 300 | 8 | 54% | 52% |
| | Right Turn | 50 | 75 | 2 | 100 | 5 | 75 | 1 | 28% | 0% |
| NB | Left Turn | 275 | 100 | 14 | 225 | 29 | 250 | 4 | 0% | 0% |
| | Through | 250 | 350 | 14 | 375 | 20 | 375 | 14 | 49% | 52% |
| | Through/Right | 250 | 250 | 1 | 275 | 3 | 250 | 0 | 28% | 10% |
| SB | Left Turn | 175 | 125 | 8 | 200 | 12 | 175 | 0 | 4% | 0% |
| | Through | 225 | 250 | 17 | 325 | 19 | 325 | 16 | 34% | 16% |
| | Through/Right | 225 | 225 | 16 | 325 | 19 | 300 | 11 | 0% | 14% |
| WB | Left Turn | 100 | 75 | 6 | 125 | 8 | 125 | 0 | 10% | 0% |
| | Through | 325 | 125 | 14 | 225 | 39 | 275 | 47 | 16% | 0% |
| | Through/Right | 325 | 50 | 5 | 100 | 12 | 125 | 28 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

12/07/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 515 | 535 | 219 | 538 | 60 | 1458 | 114 | 1688 | 483 |
| v/c Ratio | 0.69 | 0.69 | 0.40 | 0.65 | 0.60 | 0.85 | 0.63 | 0.85 | 0.43 |
| Control Delay | 61.7 | 61.3 | 63.4 | 58.3 | 102.6 | 54.8 | 88.5 | 51.0 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.7 | 61.3 | 63.4 | 58.3 | 102.6 | 57.5 | 88.5 | 51.0 | 8.8 |
| Queue Length 50th (ft) | 288 | 298 | 113 | 179 | 65 | 517 | 122 | 600 | 119 |
| Queue Length 95th (ft) | 425 | 438 | 157 | 223 | #159 | 699 | #276 | #849 | 272 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 861 | 888 | 992 | 1441 | 100 | 1915 | 180 | 2096 | 1182 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 330 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.60 | 0.22 | 0.37 | 0.60 | 0.92 | 0.63 | 0.81 | 0.41 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 612 | 353 | 32 | 208 | 321 | 190 | 57 | 1244 | 142 | 108 | 1604 | 459 |
| Future Volume (veh/h) | 612 | 353 | 32 | 208 | 321 | 190 | 57 | 1244 | 142 | 108 | 1604 | 459 |
| 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 | 584 | 455 | 0 | 219 | 338 | 0 | 60 | 1309 | 149 | 114 | 1688 | 483 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 758 | 796 | | 402 | 594 | | 110 | 1663 | 189 | 228 | 2206 | 1022 |
| Arrive On Green | 0.21 | 0.21 | 0.00 | 0.12 | 0.12 | 0.00 | 0.06 | 0.36 | 0.36 | 0.13 | 0.43 | 0.43 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4650 | 529 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 584 | 455 | 0 | 219 | 338 | 0 | 60 | 958 | 500 | 114 | 1688 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1775 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 19.9 | 14.1 | 0.0 | 7.7 | 8.1 | 0.0 | 4.2 | 32.5 | 32.5 | 7.7 | 36.2 | 20.1 |
| Cycle Q Clear(g_c), s | 19.9 | 14.1 | 0.0 | 7.7 | 8.1 | 0.0 | 4.2 | 32.5 | 32.5 | 7.7 | 36.2 | 20.1 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.30 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 758 | 796 | | 402 | 594 | | 110 | 1217 | 635 | 228 | 2206 | 1022 |
| V/C Ratio(X) | 0.77 | 0.57 | | 0.55 | 0.57 | | 0.55 | 0.79 | 0.79 | 0.50 | 0.77 | 0.47 |
| Avail Cap(c_a), veh/h | 1242 | 1304 | | 1232 | 1820 | | 124 | 1612 | 840 | 228 | 2616 | 1149 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.8 | 45.5 | 0.0 | 53.8 | 54.0 | 0.0 | 58.8 | 37.1 | 37.1 | 52.4 | 31.1 | 11.7 |
| Incr Delay (d2), s/veh | 1.7 | 0.7 | 0.0 | 1.2 | 0.9 | 0.0 | 4.2 | 2.0 | 3.7 | 1.7 | 1.2 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.0 | 6.6 | 0.0 | 3.4 | 3.5 | 0.0 | 2.0 | 13.6 | 14.5 | 3.5 | 14.7 | 12.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 49.5 | 46.2 | 0.0 | 55.0 | 54.8 | 0.0 | 63.0 | 39.0 | 40.7 | 54.1 | 32.3 | 12.1 |
| LnGrp LOS | D | D | | D | D | | E | D | D | D | C | B |
| Approach Vol, veh/h | | 1039 | A | | 557 | A | | 1518 | | | 2285 | |
| Approach Delay, s/veh | | 48.1 | | | 54.9 | | | 40.5 | | | 29.1 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.4 | 61.9 | | 33.7 | 22.8 | 52.5 | | 20.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 66.1 | | 45.0 | * 14 | * 61 | | 46.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 38.2 | | 21.9 | 9.7 | 34.5 | | 10.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 17.5 | | 5.5 | 0.1 | 11.7 | | 3.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.6 |
| HCM 6th LOS | D |

Notes

User approved volume balancing among the lanes for turning movement.

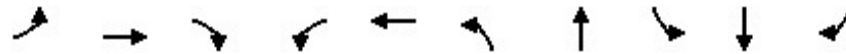
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

12/07/2020



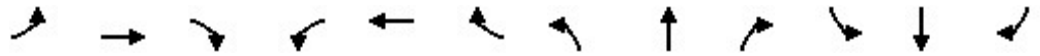
| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 104 | 940 | 279 | 48 | 881 | 372 | 123 | 32 | 287 | 278 |
| v/c Ratio | 0.53 | 0.52 | 0.29 | 0.30 | 0.58 | 0.61 | 0.17 | 0.14 | 0.60 | 0.53 |
| Control Delay | 61.4 | 31.3 | 7.1 | 59.8 | 35.3 | 49.0 | 25.9 | 53.4 | 43.2 | 19.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.4 | 31.3 | 7.1 | 59.8 | 35.3 | 49.0 | 25.9 | 53.4 | 43.2 | 19.8 |
| Queue Length 50th (ft) | 67 | 190 | 39 | 31 | 182 | 120 | 58 | 19 | 169 | 64 |
| Queue Length 95th (ft) | 159 | 313 | 109 | 90 | 310 | 227 | 125 | 65 | 335 | 185 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 372 | 2922 | 1166 | 220 | 2471 | 1084 | 1149 | 271 | 874 | 827 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.32 | 0.24 | 0.22 | 0.36 | 0.34 | 0.11 | 0.12 | 0.33 | 0.34 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 99 | 893 | 265 | 46 | 805 | 32 | 353 | 97 | 20 | 30 | 273 | 264 |
| Future Volume (veh/h) | 99 | 893 | 265 | 46 | 805 | 32 | 353 | 97 | 20 | 30 | 273 | 264 |
| 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 | 104 | 940 | 279 | 48 | 847 | 34 | 372 | 102 | 0 | 32 | 287 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 140 | 1985 | 830 | 121 | 1905 | 76 | 510 | 543 | | 152 | 405 | |
| Arrive On Green | 0.08 | 0.39 | 0.38 | 0.07 | 0.38 | 0.35 | 0.15 | 0.29 | 0.00 | 0.09 | 0.22 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5036 | 202 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 104 | 940 | 279 | 48 | 572 | 309 | 372 | 102 | 0 | 32 | 287 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1834 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 5.5 | 13.2 | 9.7 | 2.5 | 12.0 | 12.1 | 9.8 | 3.9 | 0.0 | 1.6 | 13.6 | 0.0 |
| Cycle Q Clear(g_c), s | 5.5 | 13.2 | 9.7 | 2.5 | 12.0 | 12.1 | 9.8 | 3.9 | 0.0 | 1.6 | 13.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 140 | 1985 | 830 | 121 | 1287 | 694 | 510 | 543 | | 152 | 405 | |
| V/C Ratio(X) | 0.74 | 0.47 | 0.34 | 0.40 | 0.44 | 0.45 | 0.73 | 0.19 | | 0.21 | 0.71 | |
| Avail Cap(c_a), veh/h | 410 | 3209 | 1210 | 243 | 1819 | 980 | 1195 | 1293 | | 299 | 960 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 43.0 | 21.9 | 13.1 | 42.6 | 22.2 | 22.3 | 38.9 | 25.4 | 0.0 | 40.7 | 34.6 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 0.4 | 0.5 | 0.8 | 0.5 | 1.0 | 0.8 | 0.4 | 0.0 | 0.3 | 4.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 5.2 | 3.4 | 1.1 | 4.8 | 5.3 | 4.2 | 1.8 | 0.0 | 0.7 | 6.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.0 | 22.2 | 13.6 | 43.4 | 22.7 | 23.3 | 39.6 | 25.8 | 0.0 | 40.9 | 39.4 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1323 | | | 929 | | | 474 | A | | 319 | A |
| Approach Delay, s/veh | | 22.3 | | | 24.0 | | | 36.6 | | | 39.6 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.5 | 40.1 | 18.1 | 25.8 | 10.5 | 41.1 | 12.1 | 31.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 22.0 | 48.7 | * 32 | * 47 | 13.0 | 57.7 | * 15 | 63.3 | | | | |
| Max Q Clear Time (g_c+l1), s | 7.5 | 14.1 | 11.8 | 15.6 | 4.5 | 15.2 | 3.6 | 5.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.0 | 0.7 | 3.5 | 0.0 | 19.6 | 0.0 | 1.2 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 26.8 |
| HCM 6th LOS | C |

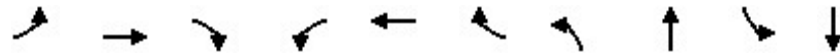
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 393 | 252 | 199 | 279 | 248 | 153 | 1335 | 298 | 1583 |
| v/c Ratio | 0.29 | 0.63 | 0.50 | 0.62 | 0.39 | 0.41 | 0.50 | 0.57 | 0.68 | 0.62 |
| Control Delay | 55.2 | 49.6 | 13.8 | 61.2 | 43.5 | 10.1 | 58.3 | 25.4 | 58.4 | 23.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Total Delay | 55.2 | 49.6 | 13.8 | 61.2 | 43.5 | 10.1 | 58.3 | 25.4 | 58.4 | 24.1 |
| Queue Length 50th (ft) | 36 | 154 | 59 | 78 | 106 | 49 | 59 | 249 | 115 | 288 |
| Queue Length 95th (ft) | 76 | 176 | 89 | 116 | 125 | 73 | 94 | 391 | 162 | 458 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 171 | 1055 | 509 | 323 | 1032 | 607 | 320 | 2354 | 457 | 2573 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 461 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.37 | 0.50 | 0.62 | 0.27 | 0.41 | 0.48 | 0.57 | 0.65 | 0.75 |

Intersection Summary

HCM 6th Signalized Intersection Summary

10: Sepulveda Blvd & Slauson Ave

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | ↷ | ↶ | ↷ | ↷ | ↶ | ↷ | ↷ | ↶ | ↷ | ↷ |
| Traffic Volume (veh/h) | 47 | 373 | 239 | 189 | 265 | 236 | 145 | 1197 | 71 | 283 | 1481 | 23 |
| Future Volume (veh/h) | 47 | 373 | 239 | 189 | 265 | 236 | 145 | 1197 | 71 | 283 | 1481 | 23 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.93 | 1.00 | | 0.93 | 1.00 | | 0.94 |
| 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 | 49 | 393 | 252 | 199 | 279 | 248 | 153 | 1260 | 75 | 298 | 1559 | 24 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 140 | 891 | 507 | 305 | 963 | 734 | 298 | 1478 | 88 | 733 | 2228 | 34 |
| Arrive On Green | 0.08 | 0.25 | 0.25 | 0.09 | 0.27 | 0.27 | 0.09 | 0.30 | 0.29 | 0.21 | 0.43 | 0.41 |
| Sat Flow, veh/h | 1781 | 3554 | 1500 | 3456 | 3554 | 1481 | 3456 | 4905 | 292 | 3456 | 5175 | 80 |
| Grp Volume(v), veh/h | 49 | 393 | 252 | 199 | 279 | 248 | 153 | 874 | 461 | 298 | 1026 | 557 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1500 | 1728 | 1777 | 1481 | 1728 | 1702 | 1793 | 1728 | 1702 | 1850 |
| Q Serve(g_s), s | 3.1 | 11.2 | 11.0 | 6.7 | 7.5 | 2.4 | 5.1 | 29.0 | 29.0 | 8.9 | 29.5 | 29.5 |
| Cycle Q Clear(g_c), s | 3.1 | 11.2 | 11.0 | 6.7 | 7.5 | 2.4 | 5.1 | 29.0 | 29.0 | 8.9 | 29.5 | 29.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 140 | 891 | 507 | 305 | 963 | 734 | 298 | 1026 | 540 | 733 | 1466 | 797 |
| V/C Ratio(X) | 0.35 | 0.44 | 0.50 | 0.65 | 0.29 | 0.34 | 0.51 | 0.85 | 0.85 | 0.41 | 0.70 | 0.70 |
| Avail Cap(c_a), veh/h | 172 | 1060 | 578 | 311 | 1036 | 765 | 323 | 1174 | 618 | 733 | 1466 | 797 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 | 0.50 | 0.50 |
| Uniform Delay (d), s/veh | 52.4 | 37.9 | 15.8 | 52.9 | 34.6 | 8.0 | 52.4 | 39.4 | 39.6 | 40.8 | 27.8 | 27.9 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.3 | 3.7 | 0.1 | 0.1 | 0.5 | 8.9 | 15.6 | 0.1 | 1.4 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 4.9 | 3.7 | 3.1 | 3.2 | 2.3 | 2.2 | 13.3 | 15.0 | 3.8 | 12.1 | 13.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.9 | 38.0 | 16.0 | 56.6 | 34.7 | 8.1 | 52.9 | 48.3 | 55.2 | 40.8 | 29.3 | 30.5 |
| LnGrp LOS | D | D | B | E | C | A | D | D | E | D | C | C |
| Approach Vol, veh/h | | 694 | | | 726 | | | 1488 | | | 1881 | |
| Approach Delay, s/veh | | 31.1 | | | 31.6 | | | 50.9 | | | 31.4 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 55.7 | 15.9 | 34.1 | 29.9 | 40.2 | 13.5 | 36.5 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.8 | * 44 | * 10 | * 34 | 14.4 | * 40 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.1 | 31.5 | 8.7 | 13.2 | 10.9 | 31.0 | 5.1 | 9.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.8 | 0.0 | 0.7 | 0.0 | 2.1 | 0.0 | 0.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 37.5 |
| HCM 6th LOS | D |

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

12/07/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 198 | 313 | 43 | 968 | 124 | 38 | 1408 | 81 |
| v/c Ratio | 0.47 | 0.90 | 0.25 | 0.40 | 0.11 | 0.12 | 0.59 | 0.07 |
| Control Delay | 36.9 | 69.5 | 21.2 | 14.1 | 8.1 | 10.0 | 12.7 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.9 | 69.5 | 21.2 | 14.1 | 8.1 | 10.0 | 12.7 | 6.1 |
| Queue Length 50th (ft) | 119 | 230 | 16 | 308 | 22 | 9 | 280 | 13 |
| Queue Length 95th (ft) | 172 | 312 | m63 | 427 | 121 | 30 | 437 | 38 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 579 | 486 | 172 | 2399 | 1092 | 322 | 2399 | 1082 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.64 | 0.25 | 0.40 | 0.11 | 0.12 | 0.59 | 0.07 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 29 | 108 | 50 | 91 | 164 | 42 | 41 | 920 | 118 | 36 | 1338 | 77 |
| Future Volume (veh/h) | 29 | 108 | 50 | 91 | 164 | 42 | 41 | 920 | 118 | 36 | 1338 | 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 | 31 | 114 | 53 | 96 | 173 | 44 | 43 | 968 | 124 | 38 | 1408 | 81 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 73 | 242 | 102 | 137 | 210 | 50 | 236 | 2477 | 1105 | 361 | 2477 | 1105 |
| Arrive On Green | 0.24 | 0.24 | 0.23 | 0.24 | 0.24 | 0.23 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Sat Flow, veh/h | 162 | 1023 | 433 | 415 | 889 | 213 | 354 | 3554 | 1585 | 516 | 3554 | 1585 |
| Grp Volume(v), veh/h | 198 | 0 | 0 | 313 | 0 | 0 | 43 | 968 | 124 | 38 | 1408 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1618 | 0 | 0 | 1518 | 0 | 0 | 354 | 1777 | 1585 | 516 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | 8.3 | 13.6 | 3.1 | 4.0 | 23.8 | 2.0 |
| Cycle Q Clear(g_c), s | 11.9 | 0.0 | 0.0 | 24.0 | 0.0 | 0.0 | 32.2 | 13.6 | 3.1 | 17.6 | 23.8 | 2.0 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 417 | 0 | 0 | 398 | 0 | 0 | 236 | 2477 | 1105 | 361 | 2477 | 1105 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.00 | 0.79 | 0.00 | 0.00 | 0.18 | 0.39 | 0.11 | 0.11 | 0.57 | 0.07 |
| Avail Cap(c_a), veh/h | 617 | 0 | 0 | 590 | 0 | 0 | 236 | 2477 | 1105 | 361 | 2477 | 1105 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.6 | 0.0 | 0.0 | 44.3 | 0.0 | 0.0 | 17.2 | 7.6 | 6.0 | 11.2 | 9.1 | 5.8 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 1.7 | 0.5 | 0.2 | 0.3 | 0.5 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.1 | 0.0 | 0.0 | 9.2 | 0.0 | 0.0 | 0.8 | 4.7 | 1.0 | 0.5 | 8.1 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 39.9 | 0.0 | 0.0 | 46.6 | 0.0 | 0.0 | 18.9 | 8.0 | 6.2 | 11.5 | 9.6 | 5.9 |
| LnGrp LOS | D | A | A | D | A | A | B | A | A | B | A | A |
| Approach Vol, veh/h | | 198 | | | 313 | | | 1135 | | | 1527 | |
| Approach Delay, s/veh | | 39.9 | | | 46.6 | | | 8.2 | | | 9.5 | |
| Approach LOS | | D | | | D | | | A | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 87.7 | | 32.3 | | 87.7 | | 32.3 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 67.3 | | * 42 | | 67.3 | | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | | 34.2 | | 13.9 | | 25.8 | | 26.0 | | | | |
| Green Ext Time (p_c), s | | 17.1 | | 0.8 | | 27.5 | | 1.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.6 |
| HCM 6th LOS | B |

Notes

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

Opening Year Plus Project AM

Queues

1: Culver Blvd & Sepulveda Blvd

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 266 | 1240 | 75 | 148 | 1241 | 261 | 1227 | 265 | 83 | 507 | 188 |
| v/c Ratio | 0.75 | 0.92 | 0.11 | 0.45 | 0.66 | 0.66 | 1.10 | 0.44 | 0.35 | 0.52 | 0.34 |
| Control Delay | 66.4 | 48.8 | 0.3 | 56.2 | 34.2 | 59.2 | 95.9 | 13.8 | 45.1 | 38.3 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.4 | 48.8 | 0.3 | 56.2 | 34.2 | 59.2 | 95.9 | 13.8 | 45.1 | 38.3 | 6.1 |
| Queue Length 50th (ft) | 105 | 498 | 0 | 56 | 300 | 100 | ~565 | 51 | 47 | 169 | 0 |
| Queue Length 95th (ft) | #161 | #669 | 0 | 91 | 361 | 145 | #703 | 128 | 88 | 222 | 54 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 354 | 1344 | 700 | 326 | 1869 | 429 | 1120 | 598 | 266 | 1092 | 601 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 0.92 | 0.11 | 0.45 | 0.66 | 0.61 | 1.10 | 0.44 | 0.31 | 0.46 | 0.31 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↗↘ | ↑↑ | ↗ | ↗↘ | ↑↑↑ | | ↗↘ | ↑↑ | ↗ | ↗ | ↑↑ | ↗ |
| Traffic Volume (veh/h) | 253 | 1178 | 71 | 141 | 1096 | 83 | 248 | 1166 | 252 | 79 | 482 | 179 |
| Future Volume (veh/h) | 253 | 1178 | 71 | 141 | 1096 | 83 | 248 | 1166 | 252 | 79 | 482 | 179 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.95 |
| 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 | 266 | 1240 | 75 | 148 | 1154 | 87 | 261 | 1227 | 265 | 83 | 507 | 188 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 334 | 1202 | 519 | 334 | 1690 | 127 | 346 | 1125 | 482 | 228 | 1137 | 484 |
| Arrive On Green | 0.10 | 0.34 | 0.34 | 0.10 | 0.35 | 0.33 | 0.10 | 0.32 | 0.32 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1535 | 3456 | 4830 | 364 | 3456 | 3554 | 1522 | 1781 | 3554 | 1513 |
| Grp Volume(v), veh/h | 266 | 1240 | 75 | 148 | 813 | 428 | 261 | 1227 | 265 | 83 | 507 | 188 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1535 | 1728 | 1702 | 1790 | 1728 | 1777 | 1522 | 1781 | 1777 | 1513 |
| Q Serve(g_s), s | 9.0 | 40.6 | 2.9 | 4.9 | 24.5 | 24.6 | 8.8 | 38.0 | 17.3 | 1.1 | 13.6 | 11.6 |
| Cycle Q Clear(g_c), s | 9.0 | 40.6 | 2.9 | 4.9 | 24.5 | 24.6 | 8.8 | 38.0 | 17.3 | 1.1 | 13.6 | 11.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 334 | 1202 | 519 | 334 | 1191 | 626 | 346 | 1125 | 482 | 228 | 1137 | 484 |
| V/C Ratio(X) | 0.80 | 1.03 | 0.14 | 0.44 | 0.68 | 0.68 | 0.76 | 1.09 | 0.55 | 0.36 | 0.45 | 0.39 |
| Avail Cap(c_a), veh/h | 357 | 1202 | 519 | 334 | 1191 | 626 | 432 | 1125 | 482 | 268 | 1137 | 484 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.0 | 39.7 | 13.6 | 51.2 | 33.3 | 33.5 | 52.6 | 41.0 | 33.9 | 49.3 | 32.4 | 31.7 |
| Incr Delay (d2), s/veh | 13.3 | 34.3 | 0.6 | 0.3 | 3.2 | 6.0 | 4.2 | 54.9 | 2.3 | 0.4 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 23.1 | 1.6 | 2.1 | 10.6 | 11.6 | 4.0 | 25.0 | 6.7 | 2.3 | 5.9 | 4.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 66.3 | 74.0 | 14.2 | 51.5 | 36.5 | 39.5 | 56.8 | 95.9 | 36.3 | 49.7 | 32.9 | 32.8 |
| LnGrp LOS | E | F | B | D | D | D | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1581 | | | 1389 | | | 1753 | | | 778 | |
| Approach Delay, s/veh | | 69.9 | | | 39.0 | | | 81.1 | | | 34.7 | |
| Approach LOS | | E | | | D | | | F | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.6 | 46.0 | 16.4 | 42.0 | 17.0 | 44.6 | 16.0 | 42.4 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 12.0 | * 38 | * 13 | * 36 | * 11 | * 39 | 14.0 | * 35 | | | | |
| Max Q Clear Time (g_c+l1), s | 11.0 | 26.6 | 3.1 | 40.0 | 6.9 | 42.6 | 10.8 | 15.6 | | | | |
| Green Ext Time (p_c), s | 0.2 | 8.5 | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 | 7.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 60.7 |
| HCM 6th LOS | E |

Notes

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

Queues

2: Jefferson Blvd & Overland Ave

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 172 | 560 | 383 | 57 | 907 | 439 | 418 | 842 | 304 | 928 | 394 |
| v/c Ratio | 0.91 | 0.59 | 0.53 | 0.25 | 0.96 | 0.63 | 0.92 | 0.77 | 0.63 | 0.82 | 0.59 |
| Control Delay | 98.9 | 42.2 | 13.1 | 50.0 | 63.8 | 18.4 | 52.4 | 19.8 | 56.0 | 44.8 | 14.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 98.9 | 42.2 | 13.1 | 50.0 | 63.8 | 18.4 | 52.4 | 19.8 | 56.0 | 44.8 | 14.9 |
| Queue Length 50th (ft) | 134 | 212 | 92 | 39 | 364 | 130 | 151 | 303 | 116 | 348 | 78 |
| Queue Length 95th (ft) | #266 | 257 | 154 | 85 | #496 | 216 | m#218 | 362 | #176 | 432 | 184 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 191 | 1080 | 720 | 234 | 949 | 700 | 460 | 1163 | 479 | 1132 | 670 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.52 | 0.53 | 0.24 | 0.96 | 0.63 | 0.91 | 0.72 | 0.63 | 0.82 | 0.59 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↰ | ↕ | ↱ | ↰ | ↕ | ↱ | ↰ | ↕ | ↱ | ↰ | ↕ | ↱ |
| Traffic Volume (veh/h) | 163 | 532 | 364 | 54 | 862 | 417 | 397 | 757 | 43 | 289 | 882 | 374 |
| Future Volume (veh/h) | 163 | 532 | 364 | 54 | 862 | 417 | 397 | 757 | 43 | 289 | 882 | 374 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 172 | 560 | 383 | 57 | 907 | 439 | 418 | 797 | 0 | 304 | 928 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 193 | 848 | 583 | 219 | 953 | 668 | 464 | 1002 | | 561 | 1129 | |
| Arrive On Green | 0.11 | 0.24 | 0.24 | 0.12 | 0.27 | 0.27 | 0.13 | 0.28 | 0.00 | 0.16 | 0.32 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1553 | 1781 | 3554 | 1532 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 172 | 560 | 383 | 57 | 907 | 439 | 418 | 797 | 0 | 304 | 928 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1553 | 1781 | 1777 | 1532 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 11.4 | 17.1 | 14.4 | 3.5 | 30.1 | 6.8 | 14.3 | 24.9 | 0.0 | 9.7 | 28.9 | 0.0 |
| Cycle Q Clear(g_c), s | 11.4 | 17.1 | 14.4 | 3.5 | 30.1 | 6.8 | 14.3 | 24.9 | 0.0 | 9.7 | 28.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 193 | 848 | 583 | 219 | 953 | 668 | 464 | 1002 | | 561 | 1129 | |
| V/C Ratio(X) | 0.89 | 0.66 | 0.66 | 0.26 | 0.95 | 0.66 | 0.90 | 0.80 | | 0.54 | 0.82 | |
| Avail Cap(c_a), veh/h | 193 | 998 | 649 | 219 | 954 | 668 | 464 | 1176 | | 561 | 1129 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.8 | 41.3 | 13.0 | 47.7 | 43.1 | 10.7 | 51.2 | 39.9 | 0.0 | 46.2 | 37.8 | 0.0 |
| Incr Delay (d2), s/veh | 35.5 | 2.2 | 3.2 | 0.2 | 18.8 | 3.2 | 20.0 | 6.5 | 0.0 | 0.6 | 6.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.0 | 7.7 | 5.3 | 1.6 | 15.6 | 5.5 | 7.5 | 11.7 | 0.0 | 4.2 | 13.5 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 88.3 | 43.5 | 16.3 | 47.9 | 62.0 | 13.9 | 71.2 | 46.4 | 0.0 | 46.8 | 44.6 | 0.0 |
| LnGrp LOS | F | D | B | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1115 | | | 1403 | | | 1215 | A | | 1232 | A |
| Approach Delay, s/veh | | 41.0 | | | 46.4 | | | 54.9 | | | 45.1 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 25.4 | 39.6 | 20.6 | 34.4 | 21.0 | 44.0 | 17.0 | 38.0 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 5.8 | * 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 14.2 | * 40 | 11.5 | * 34 | 16.1 | * 38 | 13.0 | 32.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.7 | 26.9 | 5.5 | 19.1 | 16.3 | 30.9 | 13.4 | 32.1 | | | | |
| Green Ext Time (p_c), s | 0.2 | 6.9 | 0.0 | 7.8 | 0.0 | 4.9 | 0.0 | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 47.0 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
AM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,606 | 1,400 | 87.2% | 8.4 | 1.4 | A |
| | Right Turn | 67 | 59 | 88.4% | 4.2 | 1.6 | A |
| | Subtotal | 1,673 | 1,459 | 87.2% | 8.2 | 1.4 | A |
| SB | Left Turn | 112 | 110 | 98.2% | 58.8 | 7.4 | E |
| | Through | 449 | 460 | 102.5% | 6.9 | 1.9 | A |
| | Right Turn | 5 | 5 | 102.0% | 3.2 | 0.5 | A |
| | Subtotal | 566 | 575 | 101.7% | 17.1 | 2.4 | B |
| EB | Left Turn | 8 | 6 | 77.5% | 35.5 | 27.8 | D |
| | Through | 5 | 5 | 104.0% | 37.6 | 41.0 | D |
| | Right Turn | 6 | 6 | 91.7% | 16.5 | 26.8 | B |
| | Subtotal | 19 | 17 | 88.9% | 33.5 | 19.1 | C |
| WB | Left Turn | 27 | 24 | 87.0% | 51.3 | 20.0 | D |
| | Through | 1 | 2 | 150.0% | 21.8 | 38.7 | C |
| | Right Turn | 317 | 277 | 87.3% | 13.5 | 1.7 | B |
| | Subtotal | 345 | 302 | 87.4% | 16.7 | 3.3 | B |
| Total | | 2,603 | 2,353 | 90.4% | 11.8 | 1.4 | B |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 31 | 26 | 84.5% | 21.2 | 11.1 | C |
| | Through | 1,420 | 1,204 | 84.8% | 15.1 | 4.5 | B |
| | Right Turn | 25 | 21 | 82.0% | 13.3 | 6.0 | B |
| | Subtotal | 1,476 | 1,251 | 84.7% | 15.3 | 4.5 | B |
| SB | Left Turn | 61 | 51 | 83.6% | 36.4 | 14.8 | D |
| | Through | 1,107 | 934 | 84.4% | 82.7 | 19.6 | F |
| | Right Turn | 295 | 242 | 81.9% | 47.1 | 16.7 | D |
| | Subtotal | 1,463 | 1,227 | 83.8% | 74.1 | 18.7 | E |
| EB | Left Turn | 157 | 146 | 93.2% | 34.9 | 11.2 | C |
| | Through | 22 | 23 | 103.6% | 26.5 | 13.3 | C |
| | Right Turn | 36 | 37 | 101.9% | 23.8 | 9.6 | C |
| | Subtotal | 215 | 206 | 95.8% | 31.4 | 7.6 | C |
| WB | Left Turn | 13 | 13 | 100.8% | 35.2 | 17.6 | D |
| | Through | 22 | 24 | 110.5% | 50.5 | 15.3 | D |
| | Right Turn | 27 | 27 | 101.1% | 24.1 | 13.9 | C |
| | Subtotal | 62 | 65 | 104.4% | 34.7 | 9.3 | C |
| Total | | 3,216 | 2,748 | 85.5% | 42.5 | 7.8 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 13 | 9 | 66.2% | 44.4 | 33.1 | D |
| | Through | 1,622 | 1,407 | 86.8% | 2.9 | 0.8 | A |
| | Right Turn | 37 | 33 | 88.6% | 1.9 | 0.9 | A |
| | Subtotal | 1,672 | 1,449 | 86.6% | 3.2 | 0.9 | A |
| SB | Left Turn | 12 | 13 | 104.2% | 67.2 | 15.6 | E |
| | Through | 451 | 457 | 101.2% | 2.7 | 1.4 | A |
| | Right Turn | 19 | 22 | 113.7% | 1.8 | 1.9 | A |
| | Subtotal | 482 | 491 | 101.8% | 5.7 | 1.7 | A |
| EB | Left Turn | 42 | 40 | 95.5% | 44.5 | 9.7 | D |
| | Through | 2 | 2 | 85.0% | 14.7 | 25.6 | B |
| | Right Turn | 6 | 6 | 96.7% | 3.1 | 2.7 | A |
| | Subtotal | 50 | 48 | 95.2% | 41.6 | 10.0 | D |
| WB | Left Turn | 15 | 15 | 102.0% | 42.2 | 23.6 | D |
| | Through | 2 | 2 | 95.0% | 10.7 | 15.1 | B |
| | Right Turn | 9 | 10 | 106.7% | 8.3 | 4.9 | A |
| | Subtotal | 26 | 27 | 103.1% | 29.7 | 15.8 | C |
| Total | | 2,230 | 2,014 | 90.3% | 5.1 | 1.2 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,492 | 1,274 | 85.4% | 4.8 | 0.6 | A |
| | Right Turn | 1,476 | 1,250 | 84.7% | 4.6 | 0.3 | A |
| | Subtotal | 2,968 | 2,525 | 85.1% | 4.7 | 0.3 | A |
| SB | Left Turn | | | | | | |
| | Through | 513 | 518 | 101.0% | 35.4 | 6.7 | D |
| | Right Turn | 3 | 3 | 106.7% | 11.0 | 15.8 | B |
| | Subtotal | 516 | 521 | 101.0% | 35.3 | 6.6 | D |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,138 | 965 | 84.8% | 110.4 | 7.5 | F |
| | Through | 2 | 3 | 140.0% | 41.8 | 57.1 | D |
| | Right Turn | 16 | 13 | 82.5% | 107.7 | 35.8 | F |
| | Subtotal | 1,156 | 981 | 84.9% | 110.3 | 7.4 | F |
| Total | | 4,640 | 4,027 | 86.8% | 33.7 | 1.7 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
AM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 178 | 148 | 83.1% | 120.5 | 10.1 | F |
| | Through | 2,570 | 2,131 | 82.9% | 81.7 | 5.5 | F |
| | Right Turn | 42 | 35 | 83.8% | 82.6 | 10.9 | F |
| | Subtotal | 2,790 | 2,314 | 82.9% | 84.1 | 4.9 | F |
| SB | Left Turn | 96 | 83 | 86.0% | 43.0 | 8.8 | D |
| | Through | 1,325 | 1,197 | 90.3% | 16.5 | 2.4 | B |
| | Right Turn | 230 | 204 | 88.5% | 9.4 | 1.8 | A |
| | Subtotal | 1,651 | 1,483 | 89.8% | 17.0 | 2.2 | B |
| EB | Left Turn | 190 | 183 | 96.4% | 238.1 | 88.0 | F |
| | Through | 185 | 178 | 96.1% | 208.3 | 87.5 | F |
| | Right Turn | 73 | 73 | 99.7% | 180.1 | 87.0 | F |
| | Subtotal | 448 | 434 | 96.8% | 217.2 | 87.8 | F |
| WB | Left Turn | 87 | 86 | 98.3% | 48.6 | 8.3 | D |
| | Through | 183 | 188 | 102.6% | 32.5 | 5.2 | C |
| | Right Turn | 208 | 211 | 101.5% | 14.4 | 3.1 | B |
| | Subtotal | 478 | 485 | 101.4% | 27.7 | 3.0 | C |
| Total | | 5,367 | 4,715 | 87.9% | 70.2 | 8.1 | E |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 23 | 23 | 101.3% | 3.9 | 2.3 | A |
| Subtotal | | 23 | 23 | 101.3% | 3.9 | 2.3 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| Subtotal | | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 192 | 182 | 94.9% | 5.4 | 5.2 | A |
| | Right Turn | 5 | 5 | 102.0% | 0.2 | 0.5 | A |
| Subtotal | | 197 | 187 | 95.1% | 5.2 | 5.0 | A |
| WB | Left Turn | 35 | 28 | 80.0% | 1.7 | 0.7 | A |
| | Through | 313 | 265 | 84.6% | 0.4 | 0.1 | A |
| | Right Turn | | | | | | |
| Subtotal | | 348 | 293 | 84.2% | 0.5 | 0.1 | A |
| Total | | 568 | 504 | 88.6% | 2.4 | 1.9 | A |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
AM Peak Hour

Intersection 42

Residential Driveway/Machado Rd

Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 21 | 21 | 101.4% | 5.7 | 2.2 | A |
| | Through | | | | | | |
| | Right Turn | 31 | 31 | 99.0% | 2.9 | 0.4 | A |
| | Subtotal | 52 | 52 | 100.0% | 3.8 | 0.6 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 37 | 38 | 103.2% | 3.7 | 1.0 | A |
| | Subtotal | 37 | 38 | 103.2% | 3.7 | 1.0 | A |
| EB | Left Turn | 21 | 20 | 96.7% | 3.9 | 1.3 | A |
| | Through | 155 | 146 | 94.1% | 2.1 | 0.2 | A |
| | Right Turn | 8 | 8 | 100.0% | 1.4 | 1.5 | A |
| | Subtotal | 184 | 174 | 94.7% | 2.3 | 0.3 | A |
| WB | Left Turn | 11 | 10 | 90.0% | 1.7 | 0.8 | A |
| | Through | 287 | 242 | 84.4% | 0.3 | 0.1 | A |
| | Right Turn | 15 | 13 | 85.3% | 0.0 | 0.1 | A |
| | Subtotal | 313 | 265 | 84.6% | 0.3 | 0.1 | A |
| Total | | 586 | 529 | 90.5% | 1.7 | 0.2 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 4 | 50 | 13 | 50 | 27 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 375 | 75 | 6 | 150 | 16 | 175 | 35 | 0% | 0% |
| | Through/Right | 375 | 100 | 8 | 175 | 13 | 175 | 23 | 0% | 0% |
| SB | Left Turn | 225 | 50 | 8 | 100 | 13 | 100 | 24 | 0% | 0% |
| | Through | 375 | 25 | 5 | 75 | 14 | 125 | 28 | 10% | 0% |
| | Right Turn | 50 | 25 | 1 | 25 | 7 | 50 | 10 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 4 | 50 | 10 | 75 | 13 | 0% | 0% |
| | Right Turn | 200 | 25 | 5 | 75 | 11 | 100 | 28 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 100 | 9 | 150 | 10 | 150 | 13 | 0% | 13% |
| | Through/Right | 125 | 50 | 5 | 75 | 11 | 100 | 15 | 0% | 0% |
| NB | Left Turn | 225 | 50 | 7 | 125 | 32 | 225 | 64 | 0% | 0% |
| | Through | 475 | 200 | 30 | 475 | 52 | 500 | 24 | 6% | 1% |
| | Through/Right | 475 | 200 | 30 | 475 | 46 | 500 | 37 | 0% | 1% |
| SB | Left Turn | 200 | 75 | 14 | 175 | 42 | 225 | 38 | 0% | 0% |
| | Through | 750 | 675 | 82 | 950 | 86 | 800 | 10 | 56% | 19% |
| | Right Turn | 375 | 325 | 36 | 525 | 51 | 400 | 0 | 1% | 0% |
| WB | Left Turn | 150 | 25 | 4 | 50 | 10 | 75 | 20 | 0% | 0% |
| | Through/Right | 150 | 50 | 4 | 100 | 12 | 125 | 29 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 6 | 100 | 11 | 125 | 16 | 15% | 0% |
| | Right Turn | 75 | 25 | 2 | 50 | 10 | 75 | 23 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 4 | 50 | 11 | 50 | 26 | 0% | 0% |
| | Through | 125 | 25 | 7 | 75 | 21 | 125 | 19 | 0% | 0% |
| | Through/Right | 125 | 50 | 7 | 100 | 16 | 150 | 17 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 4 | 50 | 8 | 75 | 14 | 0% | 0% |
| | Through | 375 | 25 | 8 | 100 | 30 | 150 | 68 | 0% | 0% |
| | Right Turn | 125 | 25 | 3 | 25 | 15 | 50 | 42 | 0% | 0% |
| WB | Left Turn | 200 | 25 | 4 | 50 | 9 | 75 | 21 | 0% | 0% |
| | Through/Right | 200 | 25 | 4 | 50 | 8 | 50 | 14 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 6 | 100 | 12 | 125 | 32 | 0% | 0% |
| | Right Turn | 225 | 25 | 4 | 25 | 22 | 50 | 56 | 0% | 0% |
| SB | Through | 175 | 125 | 7 | 175 | 14 | 225 | 36 | 0% | 1% |
| | Through/Right | 175 | 100 | 6 | 175 | 13 | 200 | 27 | 0% | 1% |
| WB | Left Turn | 475 | 500 | 24 | 550 | 27 | 500 | 9 | 42% | 26% |
| | Shared | 300 | 325 | 0 | 325 | 2 | 325 | 0 | 18% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 150 | 4 | 175 | 7 | 150 | 0 | 24% | 24% |
| | Through | 150 | 225 | 9 | 250 | 18 | 250 | 13 | 57% | 63% |
| | Right Turn | 50 | 50 | 5 | 100 | 4 | 75 | 1 | 3% | 0% |
| NB | Left Turn | 275 | 175 | 11 | 300 | 16 | 250 | 0 | 1% | 1% |
| | Through | 275 | 350 | 7 | 375 | 11 | 375 | 18 | 45% | 46% |
| | Through/Right | 250 | 250 | 2 | 275 | 8 | 275 | 0 | 24% | 9% |
| SB | Left Turn | 175 | 75 | 8 | 125 | 14 | 150 | 32 | 0% | 0% |
| | Through | 225 | 225 | 7 | 300 | 12 | 300 | 13 | 3% | 8% |
| | Through/Right | 225 | 175 | 13 | 275 | 9 | 275 | 11 | 0% | 2% |
| WB | Left Turn | 100 | 75 | 7 | 150 | 6 | 125 | 0 | 9% | 0% |
| | Through | 325 | 150 | 13 | 275 | 30 | 325 | 52 | 22% | 1% |
| | Through/Right | 325 | 100 | 12 | 175 | 24 | 225 | 37 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Opening Year + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 25 | 11 | 100 | 34 | 150 | 52 | 0% | 0% |
| | Through/Right | 200 | 25 | 2 | 25 | 11 | 25 | 28 | 0% | 0% |
| NB | Right Turn | 225 | 25 | 4 | 50 | 3 | 50 | 11 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 2 | 25 | 4 | 50 | 1 | 0% | 0% |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Opening Year + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|----------------------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 1 | 25 | 4 | 50 | 12 | 0% | 0% |
| | | | | | | | | | | |
| NB | Shared | 150 | 50 | 4 | 75 | 7 | 75 | 16 | 0% | 0% |
| | | | | | | | | | | |
| SB | Right-Turn | 100 | 50 | 4 | 75 | 3 | 75 | 12 | 0% | 0% |
| | | | | | | | | | | |
| WB | Left Turn Through/Right | 75 | 25 | 1 | 25 | 6 | 50 | 9 | 0% | 0% |
| | | 200 | 25 | 0 | 25 | 2 | 25 | 7 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl

12/08/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|-------|------|------|------|
| Lane Group Flow (vph) | 429 | 440 | 121 | 870 | 38 | 1875 | 67 | 858 | 651 |
| v/c Ratio | 0.62 | 0.62 | 0.17 | 1.42dr | 0.37 | 1.06 | 0.59 | 0.45 | 0.58 |
| Control Delay | 58.1 | 57.8 | 51.8 | 58.8 | 84.6 | 87.1 | 93.7 | 39.3 | 11.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.7 | 0.0 | 0.0 | 0.2 |
| Total Delay | 58.1 | 57.8 | 51.8 | 58.8 | 84.6 | 103.9 | 93.7 | 39.3 | 11.8 |
| Queue Length 50th (ft) | 234 | 240 | 53 | 278 | 39 | ~816 | 70 | 260 | 232 |
| Queue Length 95th (ft) | 302 | 308 | 86 | 343 | 84 | #952 | #142 | 318 | 349 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 828 | 853 | 801 | 1155 | 103 | 1768 | 114 | 1924 | 1175 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 211 | 0 | 0 | 89 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.52 | 0.15 | 0.75 | 0.37 | 1.20 | 0.59 | 0.45 | 0.60 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 574 | 240 | 11 | 115 | 254 | 573 | 36 | 1697 | 85 | 64 | 815 | 618 |
| Future Volume (veh/h) | 574 | 240 | 11 | 115 | 254 | 573 | 36 | 1697 | 85 | 64 | 815 | 618 |
| 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 | 519 | 372 | 0 | 121 | 267 | 0 | 38 | 1786 | 89 | 67 | 858 | 651 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 685 | 719 | | 401 | 593 | | 96 | 2089 | 104 | 132 | 2287 | 1015 |
| Arrive On Green | 0.19 | 0.19 | 0.00 | 0.12 | 0.12 | 0.00 | 0.05 | 0.42 | 0.42 | 0.07 | 0.45 | 0.45 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4982 | 248 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 519 | 372 | 0 | 121 | 267 | 0 | 38 | 1220 | 655 | 67 | 858 | 651 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1826 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 16.6 | 10.8 | 0.0 | 3.9 | 5.9 | 0.0 | 2.5 | 39.1 | 39.2 | 4.4 | 13.4 | 30.2 |
| Cycle Q Clear(g_c), s | 16.6 | 10.8 | 0.0 | 3.9 | 5.9 | 0.0 | 2.5 | 39.1 | 39.2 | 4.4 | 13.4 | 30.2 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 685 | 719 | | 401 | 593 | | 96 | 1427 | 765 | 132 | 2287 | 1015 |
| V/C Ratio(X) | 0.76 | 0.52 | | 0.30 | 0.45 | | 0.40 | 0.85 | 0.86 | 0.51 | 0.38 | 0.64 |
| Avail Cap(c_a), veh/h | 1241 | 1303 | | 1032 | 1525 | | 133 | 1522 | 816 | 148 | 2334 | 1029 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.0 | 43.7 | 0.0 | 48.8 | 49.7 | 0.0 | 55.1 | 31.7 | 31.7 | 53.7 | 22.1 | 13.2 |
| Incr Delay (d2), s/veh | 1.8 | 0.6 | 0.0 | 0.4 | 0.5 | 0.0 | 2.6 | 4.8 | 8.5 | 3.0 | 0.1 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.5 | 5.0 | 0.0 | 1.7 | 2.5 | 0.0 | 1.2 | 16.5 | 18.5 | 2.1 | 5.3 | 17.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.8 | 44.3 | 0.0 | 49.2 | 50.2 | 0.0 | 57.8 | 36.4 | 40.3 | 56.7 | 22.2 | 14.6 |
| LnGrp LOS | D | D | | D | D | | E | D | D | E | C | B |
| Approach Vol, veh/h | | 891 | A | | 388 | A | | 1913 | | | 1576 | |
| Approach Delay, s/veh | | 46.3 | | | 49.9 | | | 38.2 | | | 20.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.9 | 60.2 | | 29.5 | 15.1 | 56.9 | | 19.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 55.1 | | 42.0 | * 10 | * 54 | | 36.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 32.2 | | 18.6 | 6.4 | 41.2 | | 7.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | | 4.6 | 0.0 | 9.3 | | 2.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 34.8 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

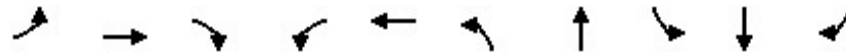
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

12/08/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 151 | 865 | 175 | 12 | 905 | 298 | 257 | 24 | 99 | 108 |
| v/c Ratio | 0.62 | 0.38 | 0.16 | 0.07 | 0.62 | 0.57 | 0.46 | 0.10 | 0.26 | 0.25 |
| Control Delay | 55.0 | 20.1 | 3.0 | 52.5 | 33.8 | 46.8 | 36.0 | 47.8 | 38.7 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.0 | 20.1 | 3.0 | 52.5 | 33.8 | 46.8 | 36.0 | 47.8 | 38.7 | 5.1 |
| Queue Length 50th (ft) | 92 | 124 | 9 | 7 | 180 | 93 | 148 | 14 | 53 | 0 |
| Queue Length 95th (ft) | 190 | 232 | 45 | 31 | 284 | 170 | 273 | 47 | 123 | 30 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 584 | 3863 | 1321 | 218 | 2787 | 1058 | 915 | 279 | 660 | 648 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.22 | 0.13 | 0.06 | 0.32 | 0.28 | 0.28 | 0.09 | 0.15 | 0.17 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 143 | 822 | 166 | 11 | 797 | 63 | 283 | 219 | 25 | 23 | 94 | 103 |
| Future Volume (veh/h) | 143 | 822 | 166 | 11 | 797 | 63 | 283 | 219 | 25 | 23 | 94 | 103 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 151 | 865 | 175 | 12 | 839 | 66 | 298 | 231 | 0 | 24 | 99 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 187 | 2068 | 876 | 46 | 1574 | 123 | 510 | 481 | | 117 | 319 | |
| Arrive On Green | 0.11 | 0.41 | 0.41 | 0.03 | 0.33 | 0.33 | 0.15 | 0.26 | 0.00 | 0.07 | 0.17 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4828 | 378 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 151 | 865 | 175 | 12 | 591 | 314 | 298 | 231 | 0 | 24 | 99 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1802 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 7.3 | 10.7 | 4.9 | 0.6 | 12.5 | 12.5 | 7.1 | 9.2 | 0.0 | 1.1 | 4.1 | 0.0 |
| Cycle Q Clear(g_c), s | 7.3 | 10.7 | 4.9 | 0.6 | 12.5 | 12.5 | 7.1 | 9.2 | 0.0 | 1.1 | 4.1 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.21 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 187 | 2068 | 876 | 46 | 1109 | 587 | 510 | 481 | | 117 | 319 | |
| V/C Ratio(X) | 0.81 | 0.42 | 0.20 | 0.26 | 0.53 | 0.54 | 0.58 | 0.48 | | 0.21 | 0.31 | |
| Avail Cap(c_a), veh/h | 647 | 4275 | 1561 | 243 | 2076 | 1099 | 1174 | 1026 | | 310 | 731 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 38.5 | 18.8 | 9.9 | 42.0 | 24.2 | 24.2 | 35.0 | 27.7 | 0.0 | 39.0 | 32.0 | 0.0 |
| Incr Delay (d2), s/veh | 3.1 | 0.3 | 0.2 | 1.1 | 0.9 | 1.6 | 0.4 | 1.6 | 0.0 | 0.3 | 1.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.3 | 4.1 | 1.6 | 0.3 | 5.0 | 5.4 | 3.0 | 4.2 | 0.0 | 0.5 | 1.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 41.6 | 19.1 | 10.1 | 43.1 | 25.1 | 25.8 | 35.4 | 29.3 | 0.0 | 39.3 | 33.2 | 0.0 |
| LnGrp LOS | D | B | B | D | C | C | D | C | | D | C | |
| Approach Vol, veh/h | | 1191 | | | 917 | | | 529 | A | | 123 | A |
| Approach Delay, s/veh | | 20.6 | | | 25.6 | | | 32.7 | | | 34.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 35.0 | 18.1 | 21.7 | 6.3 | 42.0 | 10.5 | 29.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 32.0 | 53.7 | * 30 | * 34 | 12.0 | 73.7 | * 15 | 48.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.3 | 14.5 | 9.1 | 6.1 | 2.6 | 12.7 | 3.1 | 11.2 | | | | |
| Green Ext Time (p_c), s | 0.2 | 14.2 | 0.5 | 0.9 | 0.0 | 18.4 | 0.0 | 2.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 25.2 |
| HCM 6th LOS | C |

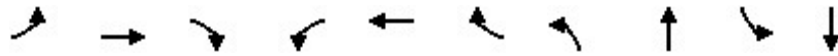
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

12/08/2020



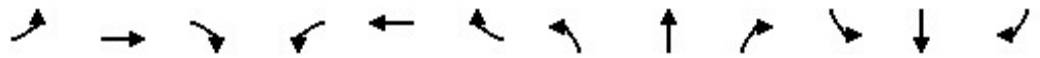
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 29 | 184 | 68 | 96 | 362 | 340 | 114 | 1606 | 195 | 783 |
| v/c Ratio | 0.18 | 0.34 | 0.15 | 0.30 | 0.49 | 0.60 | 0.44 | 0.65 | 0.71 | 0.31 |
| Control Delay | 53.3 | 46.0 | 0.7 | 52.9 | 45.0 | 18.7 | 58.9 | 25.6 | 68.4 | 19.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.3 | 46.0 | 0.7 | 52.9 | 45.0 | 18.7 | 58.9 | 25.6 | 68.4 | 19.5 |
| Queue Length 50th (ft) | 21 | 70 | 0 | 36 | 145 | 97 | 44 | 310 | 76 | 119 |
| Queue Length 95th (ft) | 52 | 89 | 0 | 63 | 164 | 132 | 75 | 483 | #119 | 199 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 162 | 1002 | 461 | 323 | 973 | 569 | 257 | 2480 | 286 | 2510 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.18 | 0.15 | 0.30 | 0.37 | 0.60 | 0.44 | 0.65 | 0.68 | 0.31 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | ↗ | ↘↗ | ↑↑↗ | | ↘↗ | ↑↑↗ | |
| Traffic Volume (veh/h) | 28 | 175 | 65 | 91 | 344 | 323 | 108 | 1487 | 39 | 185 | 729 | 15 |
| Future Volume (veh/h) | 28 | 175 | 65 | 91 | 344 | 323 | 108 | 1487 | 39 | 185 | 729 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.96 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 29 | 184 | 68 | 96 | 362 | 340 | 114 | 1565 | 41 | 195 | 767 | 16 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 101 | 701 | 414 | 276 | 822 | 660 | 253 | 1690 | 44 | 675 | 2347 | 49 |
| Arrive On Green | 0.06 | 0.20 | 0.20 | 0.08 | 0.23 | 0.23 | 0.07 | 0.33 | 0.33 | 0.20 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1781 | 3554 | 1510 | 3456 | 3554 | 1516 | 3456 | 5109 | 134 | 3456 | 5145 | 107 |
| Grp Volume(v), veh/h | 29 | 184 | 68 | 96 | 362 | 340 | 114 | 1043 | 563 | 195 | 507 | 276 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1510 | 1728 | 1777 | 1516 | 1728 | 1702 | 1839 | 1728 | 1702 | 1848 |
| Q Serve(g_s), s | 1.9 | 5.3 | 2.9 | 3.2 | 10.5 | 3.3 | 3.8 | 35.5 | 35.5 | 5.8 | 11.4 | 11.5 |
| Cycle Q Clear(g_c), s | 1.9 | 5.3 | 2.9 | 3.2 | 10.5 | 3.3 | 3.8 | 35.5 | 35.5 | 5.8 | 11.4 | 11.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 101 | 701 | 414 | 276 | 822 | 660 | 253 | 1126 | 608 | 675 | 1553 | 843 |
| V/C Ratio(X) | 0.29 | 0.26 | 0.16 | 0.35 | 0.44 | 0.51 | 0.45 | 0.93 | 0.93 | 0.29 | 0.33 | 0.33 |
| Avail Cap(c_a), veh/h | 163 | 1007 | 544 | 288 | 977 | 727 | 259 | 1251 | 676 | 675 | 1553 | 843 |
| 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(l) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | 54.3 | 40.8 | 17.1 | 52.2 | 39.5 | 11.7 | 53.3 | 38.7 | 38.7 | 41.2 | 20.9 | 20.9 |
| Incr Delay (d2), s/veh | 0.6 | 0.1 | 0.1 | 0.3 | 0.1 | 0.2 | 0.5 | 14.1 | 22.2 | 0.1 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 2.3 | 1.2 | 1.4 | 4.6 | 4.3 | 1.7 | 16.8 | 19.5 | 2.5 | 4.7 | 5.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 40.8 | 17.2 | 52.5 | 39.6 | 11.9 | 53.7 | 52.8 | 61.0 | 41.2 | 21.4 | 21.8 |
| LnGrp LOS | D | D | B | D | D | B | D | D | E | D | C | C |
| Approach Vol, veh/h | | 281 | | | 798 | | | 1720 | | | 978 | |
| Approach Delay, s/veh | | 36.6 | | | 29.4 | | | 55.6 | | | 25.5 | |
| Approach LOS | | D | | | C | | | E | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.2 | 60.7 | 15.5 | 29.6 | 29.4 | 45.5 | 11.4 | 33.7 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | * 45 | * 10 | * 34 | 10.0 | * 44 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.8 | 13.5 | 5.2 | 7.3 | 7.8 | 37.5 | 3.9 | 12.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.0 | 0.3 | 0.0 | 2.2 | 0.0 | 0.7 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 40.8 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

12/08/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 347 | 301 | 68 | 1611 | 188 | 32 | 517 | 102 |
| v/c Ratio | 0.94 | 0.83 | 0.12 | 0.70 | 0.18 | 0.29 | 0.22 | 0.10 |
| Control Delay | 74.7 | 59.6 | 4.0 | 10.6 | 2.5 | 20.4 | 9.8 | 2.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.7 | 59.6 | 4.0 | 10.6 | 2.5 | 20.4 | 9.8 | 2.9 |
| Queue Length 50th (ft) | 256 | 215 | 6 | 87 | 8 | 10 | 81 | 3 |
| Queue Length 95th (ft) | 350 | 297 | m6 | 70 | 0 | 42 | 130 | 27 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 471 | 461 | 544 | 2298 | 1046 | 111 | 2298 | 1059 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.65 | 0.13 | 0.70 | 0.18 | 0.29 | 0.22 | 0.10 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

12/08/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 65 | 212 | 53 | 56 | 191 | 39 | 65 | 1530 | 179 | 30 | 491 | 97 |
| Future Volume (veh/h) | 65 | 212 | 53 | 56 | 191 | 39 | 65 | 1530 | 179 | 30 | 491 | 97 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 68 | 223 | 56 | 59 | 201 | 41 | 68 | 1611 | 188 | 32 | 517 | 102 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 94 | 258 | 61 | 89 | 261 | 49 | 532 | 2299 | 1025 | 153 | 2299 | 1025 |
| Arrive On Green | 0.27 | 0.26 | 0.26 | 0.27 | 0.26 | 0.26 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| Sat Flow, veh/h | 223 | 985 | 232 | 201 | 996 | 189 | 804 | 3554 | 1585 | 262 | 3554 | 1585 |
| Grp Volume(v), veh/h | 347 | 0 | 0 | 301 | 0 | 0 | 68 | 1611 | 188 | 32 | 517 | 102 |
| Grp Sat Flow(s),veh/h/ln | 1440 | 0 | 0 | 1386 | 0 | 0 | 804 | 1777 | 1585 | 262 | 1777 | 1585 |
| Q Serve(g_s), s | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 35.1 | 5.7 | 10.8 | 7.2 | 2.9 |
| Cycle Q Clear(g_c), s | 28.5 | 0.0 | 0.0 | 24.6 | 0.0 | 0.0 | 11.8 | 35.1 | 5.7 | 45.9 | 7.2 | 2.9 |
| Prop In Lane | 0.20 | | 0.16 | 0.20 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 428 | 0 | 0 | 413 | 0 | 0 | 532 | 2299 | 1025 | 153 | 2299 | 1025 |
| V/C Ratio(X) | 0.81 | 0.00 | 0.00 | 0.73 | 0.00 | 0.00 | 0.13 | 0.70 | 0.18 | 0.21 | 0.22 | 0.10 |
| Avail Cap(c_a), veh/h | 540 | 0 | 0 | 525 | 0 | 0 | 532 | 2299 | 1025 | 153 | 2299 | 1025 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.6 | 0.0 | 0.0 | 40.6 | 0.0 | 0.0 | 11.2 | 13.7 | 8.5 | 28.5 | 8.8 | 8.0 |
| Incr Delay (d2), s/veh | 5.8 | 0.0 | 0.0 | 2.5 | 0.0 | 0.0 | 0.5 | 1.8 | 0.4 | 1.4 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.5 | 0.0 | 0.0 | 8.4 | 0.0 | 0.0 | 0.8 | 13.0 | 1.9 | 0.7 | 2.6 | 0.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 48.4 | 0.0 | 0.0 | 43.1 | 0.0 | 0.0 | 11.7 | 15.5 | 8.9 | 29.9 | 8.9 | 8.1 |
| LnGrp LOS | D | A | A | D | A | A | B | B | A | C | A | A |
| Approach Vol, veh/h | | 347 | | | 301 | | | 1867 | | | | 651 |
| Approach Delay, s/veh | | 48.4 | | | 43.1 | | | 14.7 | | | | 9.8 |
| Approach LOS | | D | | | D | | | B | | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 83.3 | | 36.7 | | 83.3 | | 36.7 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 69.3 | | * 40 | | 69.3 | | * 40 | | | | |
| Max Q Clear Time (g_c+I1), s | | 37.1 | | 30.5 | | 47.9 | | 26.6 | | | | |
| Green Ext Time (p_c), s | | 26.4 | | 1.0 | | 7.7 | | 1.0 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 20.1 |
| HCM 6th LOS | C |

Notes

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

Opening Year Plus Project PM

Queues

1: Culver Blvd & Sepulveda Blvd

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 240 | 1246 | 111 | 247 | 1347 | 139 | 792 | 184 | 55 | 1155 | 280 |
| v/c Ratio | 0.71 | 1.01 | 0.17 | 0.76 | 0.77 | 0.41 | 0.65 | 0.29 | 0.18 | 1.01 | 0.47 |
| Control Delay | 64.9 | 66.9 | 0.7 | 68.5 | 38.5 | 54.5 | 37.4 | 6.4 | 33.2 | 70.3 | 15.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.9 | 66.9 | 0.7 | 68.5 | 38.5 | 54.5 | 37.4 | 6.4 | 33.2 | 70.3 | 15.7 |
| Queue Length 50th (ft) | 94 | ~513 | 0 | 97 | 336 | 53 | 282 | 5 | 30 | ~480 | 66 |
| Queue Length 95th (ft) | #141 | #670 | 2 | #155 | 395 | 86 | 353 | 57 | 61 | #631 | 148 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 337 | 1235 | 659 | 326 | 1746 | 343 | 1235 | 646 | 310 | 1141 | 600 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 1.01 | 0.17 | 0.76 | 0.77 | 0.41 | 0.64 | 0.28 | 0.18 | 1.01 | 0.47 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

12/07/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 228 | 1184 | 105 | 235 | 1208 | 71 | 132 | 752 | 175 | 52 | 1097 | 266 |
| Future Volume (veh/h) | 228 | 1184 | 105 | 235 | 1208 | 71 | 132 | 752 | 175 | 52 | 1097 | 266 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 0.99 | | 0.96 |
| 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 | 240 | 1246 | 111 | 247 | 1272 | 75 | 139 | 792 | 184 | 55 | 1155 | 280 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 328 | 1241 | 538 | 1554 | 3524 | 208 | 342 | 1038 | 443 | 306 | 1146 | 491 |
| Arrive On Green | 0.09 | 0.35 | 0.35 | 0.45 | 0.72 | 0.70 | 0.10 | 0.29 | 0.29 | 0.12 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1541 | 3456 | 4924 | 290 | 3456 | 3554 | 1517 | 1781 | 3554 | 1524 |
| Grp Volume(v), veh/h | 240 | 1246 | 111 | 247 | 879 | 468 | 139 | 792 | 184 | 55 | 1155 | 280 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1541 | 1728 | 1702 | 1811 | 1728 | 1777 | 1517 | 1781 | 1777 | 1524 |
| Q Serve(g_s), s | 8.1 | 41.9 | 7.6 | 5.1 | 11.9 | 12.0 | 4.5 | 24.4 | 11.7 | 0.0 | 38.7 | 18.3 |
| Cycle Q Clear(g_c), s | 8.1 | 41.9 | 7.6 | 5.1 | 11.9 | 12.0 | 4.5 | 24.4 | 11.7 | 0.0 | 38.7 | 18.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 328 | 1241 | 538 | 1554 | 2436 | 1296 | 342 | 1038 | 443 | 306 | 1146 | 491 |
| V/C Ratio(X) | 0.73 | 1.00 | 0.21 | 0.16 | 0.36 | 0.36 | 0.41 | 0.76 | 0.42 | 0.18 | 1.01 | 0.57 |
| Avail Cap(c_a), veh/h | 340 | 1241 | 538 | 1554 | 2436 | 1296 | 346 | 1146 | 489 | 306 | 1146 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.8 | 39.1 | 43.5 | 19.6 | 6.5 | 6.6 | 50.7 | 38.7 | 34.2 | 44.6 | 40.7 | 33.7 |
| Incr Delay (d2), s/veh | 9.5 | 26.6 | 0.9 | 0.0 | 0.4 | 0.8 | 0.3 | 3.6 | 1.3 | 0.1 | 28.5 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.0 | 22.5 | 3.1 | 2.1 | 4.0 | 4.5 | 2.0 | 11.1 | 4.5 | 1.5 | 21.2 | 7.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 62.3 | 65.6 | 44.4 | 19.6 | 7.0 | 7.4 | 51.0 | 42.3 | 35.5 | 44.7 | 69.2 | 36.3 |
| LnGrp LOS | E | F | D | B | A | A | D | D | D | D | F | D |
| Approach Vol, veh/h | | 1597 | | | 1594 | | | 1115 | | | 1490 | |
| Approach Delay, s/veh | | 63.6 | | | 9.0 | | | 42.3 | | | 62.1 | |
| Approach LOS | | E | | | A | | | D | | | E | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 91.2 | 19.5 | 39.1 | 60.7 | 45.9 | 15.9 | 42.7 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.4 | * 40 | * 11 | * 37 | * 11 | * 40 | 11.0 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.1 | 14.0 | 2.0 | 26.4 | 7.1 | 43.9 | 6.5 | 40.7 | | | | |
| Green Ext Time (p_c), s | 0.2 | 17.4 | 0.0 | 6.5 | 0.2 | 0.0 | 0.1 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 44.1 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 159 | 838 | 320 | 52 | 655 | 635 | 351 | 1037 | 398 | 679 | 203 |
| v/c Ratio | 0.91 | 0.81 | 0.41 | 0.32 | 0.71 | 0.87 | 0.72 | 0.87 | 0.69 | 0.52 | 0.29 |
| Control Delay | 101.0 | 47.2 | 9.6 | 56.7 | 45.0 | 32.3 | 29.5 | 31.0 | 54.1 | 32.6 | 5.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 101.0 | 47.2 | 9.6 | 56.7 | 45.0 | 32.3 | 29.5 | 31.0 | 54.1 | 32.6 | 5.0 |
| Queue Length 50th (ft) | 124 | 323 | 58 | 38 | 240 | 248 | 123 | 443 | 151 | 220 | 0 |
| Queue Length 95th (ft) | #254 | #404 | 121 | 80 | 305 | #412 | m120 | #541 | 206 | 291 | 52 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 177 | 1032 | 809 | 169 | 967 | 728 | 560 | 1196 | 575 | 1296 | 694 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.81 | 0.40 | 0.31 | 0.68 | 0.87 | 0.63 | 0.87 | 0.69 | 0.52 | 0.29 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 151 | 796 | 304 | 49 | 622 | 603 | 333 | 941 | 44 | 378 | 645 | 193 |
| Future Volume (veh/h) | 151 | 796 | 304 | 49 | 622 | 603 | 333 | 941 | 44 | 378 | 645 | 193 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 159 | 838 | 320 | 52 | 655 | 635 | 351 | 991 | 0 | 398 | 679 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 1023 | 630 | 134 | 936 | 687 | 435 | 1132 | | 621 | 1342 | |
| Arrive On Green | 0.10 | 0.29 | 0.28 | 0.08 | 0.26 | 0.26 | 0.13 | 0.32 | 0.00 | 0.18 | 0.38 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1535 | 1781 | 3554 | 1552 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 159 | 838 | 320 | 52 | 655 | 635 | 351 | 991 | 0 | 398 | 679 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1535 | 1781 | 1777 | 1552 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 10.6 | 26.4 | 18.8 | 3.3 | 20.0 | 16.2 | 11.9 | 31.6 | 0.0 | 12.8 | 17.6 | 0.0 |
| Cycle Q Clear(g_c), s | 10.6 | 26.4 | 18.8 | 3.3 | 20.0 | 16.2 | 11.9 | 31.6 | 0.0 | 12.8 | 17.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 178 | 1023 | 630 | 134 | 936 | 687 | 435 | 1132 | | 621 | 1342 | |
| V/C Ratio(X) | 0.89 | 0.82 | 0.51 | 0.39 | 0.70 | 0.92 | 0.81 | 0.88 | | 0.64 | 0.51 | |
| Avail Cap(c_a), veh/h | 178 | 1023 | 630 | 171 | 971 | 703 | 564 | 1158 | | 621 | 1342 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.4 | 39.8 | 26.7 | 52.8 | 39.9 | 15.0 | 51.0 | 38.6 | 0.0 | 45.6 | 28.7 | 0.0 |
| Incr Delay (d2), s/veh | 37.8 | 6.0 | 1.4 | 0.7 | 2.9 | 18.5 | 5.0 | 9.5 | 0.0 | 1.7 | 1.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.6 | 12.3 | 7.1 | 1.5 | 9.1 | 12.5 | 5.4 | 15.1 | 0.0 | 5.6 | 7.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 91.2 | 45.8 | 28.1 | 53.5 | 42.8 | 33.5 | 56.0 | 48.2 | 0.0 | 47.4 | 30.1 | 0.0 |
| LnGrp LOS | F | D | C | D | D | C | E | D | | D | C | |
| Approach Vol, veh/h | | 1317 | | | 1342 | | | 1342 | A | | 1077 | A |
| Approach Delay, s/veh | | 47.0 | | | 38.8 | | | 50.2 | | | 36.5 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 26.2 | 42.2 | 13.1 | 38.5 | 19.1 | 49.3 | 16.0 | 35.6 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 18.8 | * 37 | 11.5 | 31.5 | 18.7 | * 38 | 12.0 | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.8 | 33.6 | 5.3 | 28.4 | 13.9 | 19.6 | 12.6 | 22.0 | | | | |
| Green Ext Time (p_c), s | 0.3 | 2.8 | 0.0 | 2.5 | 0.3 | 7.5 | 0.0 | 6.8 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 43.5 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 4 | 3 | 82.5% | 41.9 | 42.6 | D |
| | Through | 847 | 786 | 92.8% | 11.5 | 3.6 | B |
| | Right Turn | 73 | 67 | 92.3% | 6.7 | 2.7 | A |
| | Subtotal | 924 | 856 | 92.7% | 11.4 | 3.6 | B |
| SB | Left Turn | 260 | 245 | 94.4% | 148.2 | 70.8 | F |
| | Through | 1,222 | 1,144 | 93.6% | 163.4 | 71.3 | F |
| | Right Turn | 4 | 4 | 100.0% | 127.8 | 65.1 | F |
| | Subtotal | 1,486 | 1,393 | 93.8% | 160.3 | 70.7 | F |
| EB | Left Turn | | | | | | |
| | Through | 5 | 4 | 70.0% | 38.7 | 40.1 | D |
| | Right Turn | 1 | 2 | 160.0% | 5.3 | 10.1 | A |
| | Subtotal | 6 | 5 | 85.0% | 35.9 | 35.4 | D |
| WB | Left Turn | 31 | 28 | 91.6% | 68.0 | 47.6 | E |
| | Through | 3 | 4 | 136.7% | 28.7 | 49.1 | C |
| | Right Turn | 251 | 245 | 97.8% | 7.8 | 1.8 | A |
| | Subtotal | 285 | 278 | 97.5% | 16.1 | 7.5 | B |
| Total | | 2,701 | 2,533 | 93.8% | 94.2 | 37.7 | F |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 51 | 45 | 88.0% | 23.8 | 7.9 | C |
| | Through | 1,223 | 1,100 | 90.0% | 10.4 | 2.6 | B |
| | Right Turn | 52 | 49 | 93.8% | 8.3 | 3.1 | A |
| | Subtotal | 1,326 | 1,194 | 90.0% | 10.8 | 2.4 | B |
| SB | Left Turn | 81 | 75 | 92.1% | 39.1 | 27.0 | D |
| | Through | 820 | 753 | 91.9% | 49.2 | 43.7 | D |
| | Right Turn | 228 | 225 | 98.7% | 15.0 | 19.0 | B |
| | Subtotal | 1,129 | 1,053 | 93.3% | 41.1 | 36.5 | D |
| EB | Left Turn | 231 | 225 | 97.2% | 39.3 | 8.6 | D |
| | Through | 98 | 97 | 99.3% | 35.7 | 12.8 | D |
| | Right Turn | 38 | 34 | 90.5% | 33.2 | 17.2 | C |
| | Subtotal | 367 | 356 | 97.1% | 37.3 | 8.9 | D |
| WB | Left Turn | 31 | 29 | 92.9% | 37.8 | 19.8 | D |
| | Through | 42 | 41 | 97.1% | 38.6 | 5.5 | D |
| | Right Turn | 1 | 2 | 200.0% | 8.6 | 25.9 | A |
| | Subtotal | 74 | 72 | 96.8% | 39.8 | 8.0 | D |
| Total | | 2,896 | 2,675 | 92.4% | 27.0 | 14.7 | C |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 26 | 26 | 100.0% | 58.3 | 21.3 | E |
| | Through | 874 | 803 | 91.9% | 14.6 | 5.2 | B |
| | Right Turn | 56 | 52 | 92.3% | 9.6 | 3.1 | A |
| | Subtotal | 956 | 881 | 92.1% | 15.9 | 4.9 | B |
| SB | Left Turn | 25 | 23 | 91.2% | 107.5 | 31.6 | F |
| | Through | 1,156 | 1,059 | 91.6% | 79.6 | 10.9 | E |
| | Right Turn | 73 | 70 | 95.6% | 63.5 | 9.5 | E |
| | Subtotal | 1,254 | 1,151 | 91.8% | 79.1 | 10.6 | E |
| EB | Left Turn | 20 | 19 | 97.0% | 47.4 | 12.2 | D |
| | Through | 3 | 2 | 76.7% | 26.2 | 66.7 | C |
| | Right Turn | 11 | 12 | 107.3% | 31.5 | 13.6 | C |
| | Subtotal | 34 | 34 | 98.5% | 41.5 | 10.5 | D |
| WB | Left Turn | 40 | 35 | 87.0% | 56.1 | 22.5 | E |
| | Through | 4 | 3 | 72.5% | 32.6 | 28.6 | C |
| | Right Turn | 30 | 32 | 106.7% | 5.3 | 2.3 | A |
| | Subtotal | 74 | 70 | 94.2% | 31.3 | 9.1 | C |
| Total | | 2,318 | 2,135 | 92.1% | 51.3 | 5.2 | D |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 915 | 840 | 91.8% | 3.5 | 0.7 | A |
| | Right Turn | 1,326 | 1,194 | 90.1% | 3.7 | 0.2 | A |
| | Subtotal | 2,241 | 2,034 | 90.8% | 3.6 | 0.3 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,217 | 1,098 | 90.3% | 108.3 | 11.3 | F |
| | Right Turn | 14 | 13 | 95.7% | 95.7 | 28.4 | F |
| | Subtotal | 1,231 | 1,112 | 90.3% | 108.2 | 11.4 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 870 | 782 | 89.9% | 119.5 | 38.5 | F |
| | Through | 7 | 7 | 94.3% | 96.5 | 58.1 | F |
| | Right Turn | 12 | 12 | 95.8% | 102.9 | 53.0 | F |
| | Subtotal | 889 | 800 | 90.0% | 119.0 | 38.5 | F |
| Total | | 4,361 | 3,947 | 90.5% | 57.7 | 9.1 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
PM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 91 | 81 | 89.5% | 125.9 | 26.0 | F |
| | Through | 1,950 | 1,756 | 90.1% | 97.3 | 5.6 | F |
| | Right Turn | 59 | 55 | 93.2% | 98.6 | 8.1 | F |
| | Subtotal | 2,100 | 1,892 | 90.1% | 98.8 | 5.3 | F |
| SB | Left Turn | 128 | 116 | 90.9% | 60.7 | 8.4 | E |
| | Through | 1,804 | 1,621 | 89.8% | 34.8 | 4.9 | C |
| | Right Turn | 155 | 141 | 90.8% | 24.6 | 3.9 | C |
| | Subtotal | 2,087 | 1,878 | 90.0% | 35.5 | 4.4 | D |
| EB | Left Turn | 186 | 176 | 94.6% | 152.0 | 67.2 | F |
| | Through | 221 | 213 | 96.4% | 131.3 | 72.9 | F |
| | Right Turn | 243 | 231 | 95.1% | 118.1 | 67.5 | F |
| | Subtotal | 650 | 620 | 95.4% | 132.7 | 69.1 | F |
| WB | Left Turn | 61 | 58 | 94.8% | 62.1 | 12.8 | E |
| | Through | 150 | 149 | 99.3% | 37.6 | 8.6 | D |
| | Right Turn | 105 | 102 | 97.5% | 12.2 | 3.9 | B |
| | Subtotal | 316 | 309 | 97.8% | 33.9 | 6.0 | C |
| Total | | 5,153 | 4,700 | 91.2% | 74.9 | 10.4 | E |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 66 | 66 | 100.6% | 12.2 | 8.0 | B |
| | Subtotal | 66 | 66 | 100.6% | 12.2 | 8.0 | B |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 301 | 288 | 95.7% | 16.1 | 7.4 | C |
| | Right Turn | 5 | 5 | 98.0% | 0.2 | 0.4 | A |
| | Subtotal | 306 | 293 | 95.8% | 15.8 | 7.2 | C |
| WB | Left Turn | 62 | 59 | 95.6% | 6.9 | 3.7 | A |
| | Through | 259 | 252 | 97.3% | 0.5 | 0.1 | A |
| | Right Turn | | | | | | |
| | Subtotal | 321 | 311 | 97.0% | 1.9 | 1.2 | A |
| Total | | 693 | 671 | 96.8% | 9.4 | 4.2 | A |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Opening Year + Project
PM Peak Hour

Intersection 42

Residential Driveway/Machado Rd

Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 18 | 17 | 92.8% | 8.7 | 3.1 | A |
| | Through | | | | | | |
| | Right Turn | 20 | 21 | 106.5% | 3.4 | 1.4 | A |
| | Subtotal | 38 | 38 | 100.0% | 6.3 | 1.9 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 50 | 49 | 97.8% | 3.1 | 0.7 | A |
| | Subtotal | 50 | 49 | 97.8% | 3.1 | 0.7 | A |
| EB | Left Turn | 36 | 32 | 88.3% | 3.0 | 1.0 | A |
| | Through | 281 | 268 | 95.2% | 2.2 | 0.8 | A |
| | Right Turn | 21 | 18 | 87.6% | 1.1 | 0.8 | A |
| | Subtotal | 338 | 318 | 94.0% | 2.2 | 0.7 | A |
| WB | Left Turn | 32 | 30 | 93.8% | 2.6 | 1.4 | A |
| | Through | 217 | 211 | 97.4% | 0.2 | 0.1 | A |
| | Right Turn | 10 | 10 | 104.0% | 0.0 | 0.1 | A |
| | Subtotal | 259 | 252 | 97.2% | 0.5 | 0.1 | A |
| Total | | 685 | 657 | 95.8% | 1.9 | 0.4 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 1 | 25 | 4 | 25 | 11 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 3 | 25 | 8 | 0% | 0% |
| | Through | 375 | 50 | 13 | 175 | 49 | 275 | 84 | 2% | 0% |
| | Through/Right | 375 | 75 | 12 | 175 | 36 | 275 | 54 | 0% | 0% |
| SB | Left Turn | 225 | 125 | 27 | 275 | 34 | 225 | 41 | 1% | 0% |
| | Through | 375 | 250 | 43 | 500 | 64 | 450 | 15 | 45% | 25% |
| | Right Turn | 50 | 25 | 1 | 25 | 6 | 50 | 8 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 6 | 75 | 17 | 100 | 23 | 1% | 0% |
| | Right Turn | 200 | 25 | 4 | 50 | 11 | 75 | 25 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 125 | 7 | 175 | 8 | 175 | 2 | 0% | 39% |
| | Through/Right | 125 | 75 | 7 | 150 | 10 | 150 | 19 | 0% | 10% |
| NB | Left Turn | 225 | 50 | 9 | 75 | 36 | 150 | 83 | 0% | 0% |
| | Through | 475 | 75 | 12 | 200 | 33 | 325 | 86 | 0% | 0% |
| | Through/Right | 475 | 100 | 12 | 200 | 29 | 325 | 64 | 0% | 0% |
| SB | Left Turn | 200 | 50 | 10 | 125 | 30 | 200 | 53 | 0% | 0% |
| | Through | 750 | 150 | 66 | 350 | 189 | 450 | 216 | 7% | 0% |
| | Right Turn | 375 | 75 | 44 | 175 | 126 | 225 | 148 | 0% | 0% |
| WB | Left Turn | 150 | 50 | 6 | 75 | 10 | 100 | 14 | 0% | 0% |
| | Through/Right | 150 | 50 | 7 | 100 | 17 | 125 | 26 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 25 | 4 | 75 | 9 | 100 | 24 | 4% | 0% |
| | Right Turn | 75 | 25 | 3 | 50 | 6 | 50 | 17 | 0% | 0% |
| NB | Left Turn | 125 | 50 | 8 | 75 | 18 | 125 | 22 | 0% | 0% |
| | Through | 125 | 125 | 12 | 225 | 13 | 200 | 12 | 10% | 10% |
| | Through/Right | 125 | 125 | 11 | 225 | 10 | 200 | 11 | 0% | 10% |
| SB | Left Turn | 125 | 50 | 9 | 125 | 20 | 125 | 0 | 0% | 0% |
| | Through | 375 | 325 | 33 | 575 | 18 | 475 | 9 | 47% | 32% |
| | Right Turn | 125 | 75 | 14 | 150 | 20 | 150 | 0 | 0% | 0% |
| WB | Left Turn | 200 | 50 | 8 | 75 | 17 | 100 | 30 | 0% | 0% |
| | Through/Right | 200 | 25 | 3 | 75 | 5 | 75 | 13 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 25 | 7 | 75 | 10 | 75 | 21 | 0% | 0% |
| | Right Turn | 225 | 25 | 1 | 25 | 14 | 50 | 41 | 0% | 0% |
| SB | Through | 175 | 250 | 4 | 275 | 14 | 300 | 12 | 0% | 63% |
| | Through/Right | 175 | 250 | 7 | 275 | 13 | 275 | 14 | 0% | 59% |
| WB | Left Turn | 475 | 375 | 39 | 550 | 27 | 525 | 16 | 25% | 10% |
| | Shared | 300 | 275 | 19 | 375 | 19 | 325 | 0 | 16% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 8 | 250 | 7 | 200 | 0 | 17% | 7% |
| | Through | 200 | 275 | 10 | 325 | 23 | 300 | 12 | 54% | 51% |
| | Right Turn | 50 | 75 | 4 | 100 | 4 | 75 | 1 | 25% | 0% |
| NB | Left Turn | 275 | 125 | 11 | 225 | 17 | 250 | 0 | 0% | 0% |
| | Through | 250 | 350 | 19 | 375 | 13 | 375 | 17 | 49% | 49% |
| | Through/Right | 250 | 250 | 1 | 275 | 4 | 250 | 0 | 25% | 10% |
| SB | Left Turn | 175 | 125 | 8 | 200 | 8 | 175 | 1 | 5% | 0% |
| | Through | 225 | 250 | 11 | 325 | 12 | 325 | 19 | 36% | 19% |
| | Through/Right | 225 | 250 | 12 | 325 | 15 | 325 | 19 | 0% | 15% |
| WB | Left Turn | 100 | 75 | 4 | 125 | 9 | 125 | 1 | 7% | 0% |
| | Through | 325 | 125 | 16 | 225 | 33 | 275 | 55 | 18% | 1% |
| | Through/Right | 325 | 50 | 2 | 100 | 6 | 125 | 20 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Opening Year + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 75 | 13 | 175 | 19 | 225 | 20 | 0% | 3% |
| | Through/Right | 200 | 25 | 4 | 75 | 15 | 125 | 47 | 0% | 0% |
| NB | Right Turn | 225 | 50 | 5 | 75 | 10 | 125 | 19 | 0% | 0% |
| | Left Turn | 75 | 25 | 4 | 75 | 8 | 75 | 17 | 2% | 0% |
| WB | Through | 125 | 25 | 3 | 25 | 22 | 50 | 58 | 0% | 0% |
| | | | | | | | | | | |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Opening Year + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 1 | 50 | 6 | 50 | 15 | 0% | 0% |
| | Through | 200 | 25 | 4 | 50 | 24 | 100 | 57 | 0% | 0% |
| | Through/Right | 200 | 25 | 0 | 25 | 2 | 25 | 5 | 0% | 0% |
| NB | Shared | 125 | 25 | 4 | 50 | 3 | 75 | 16 | 0% | 0% |
| | Right Turn | 125 | 50 | 2 | 75 | 4 | 75 | 12 | 0% | 0% |
| SB | Left Turn | 75 | 25 | 2 | 25 | 6 | 50 | 15 | 0% | 0% |
| | Through/Right | 200 | 25 | 0 | 25 | 1 | 25 | 3 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 2 | 25 | 6 | 50 | 15 | 0% | 0% |
| | Through/Right | 200 | 25 | 0 | 25 | 1 | 25 | 3 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

12/07/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 544 | 542 | 219 | 538 | 60 | 1497 | 114 | 1712 | 509 |
| v/c Ratio | 0.71 | 0.69 | 0.40 | 0.65 | 0.61 | 0.86 | 0.66 | 0.86 | 0.45 |
| Control Delay | 63.0 | 61.4 | 64.2 | 59.1 | 104.2 | 55.6 | 92.3 | 52.0 | 9.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.0 | 61.4 | 64.2 | 59.1 | 104.2 | 62.4 | 92.3 | 52.0 | 9.2 |
| Queue Length 50th (ft) | 308 | 303 | 114 | 180 | 65 | 536 | 124 | 621 | 133 |
| Queue Length 95th (ft) | 451 | 444 | 157 | 223 | #159 | 725 | #276 | #871 | 299 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 846 | 874 | 975 | 1418 | 98 | 1883 | 172 | 2061 | 1175 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 346 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.64 | 0.62 | 0.22 | 0.38 | 0.61 | 0.97 | 0.66 | 0.83 | 0.43 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 646 | 353 | 32 | 208 | 321 | 190 | 57 | 1281 | 142 | 108 | 1626 | 484 |
| Future Volume (veh/h) | 646 | 353 | 32 | 208 | 321 | 190 | 57 | 1281 | 142 | 108 | 1626 | 484 |
| 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 | 612 | 468 | 0 | 219 | 338 | 0 | 60 | 1348 | 149 | 114 | 1712 | 509 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 783 | 823 | | 393 | 580 | | 108 | 1692 | 187 | 219 | 2207 | 1034 |
| Arrive On Green | 0.22 | 0.22 | 0.00 | 0.11 | 0.11 | 0.00 | 0.06 | 0.36 | 0.36 | 0.12 | 0.43 | 0.43 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4666 | 516 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 612 | 468 | 0 | 219 | 338 | 0 | 60 | 983 | 514 | 114 | 1712 | 509 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1778 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 21.4 | 14.7 | 0.0 | 7.9 | 8.3 | 0.0 | 4.3 | 34.2 | 34.2 | 7.9 | 37.8 | 21.7 |
| Cycle Q Clear(g_c), s | 21.4 | 14.7 | 0.0 | 7.9 | 8.3 | 0.0 | 4.3 | 34.2 | 34.2 | 7.9 | 37.8 | 21.7 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.29 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 783 | 823 | | 393 | 580 | | 108 | 1234 | 645 | 219 | 2207 | 1034 |
| V/C Ratio(X) | 0.78 | 0.57 | | 0.56 | 0.58 | | 0.56 | 0.80 | 0.80 | 0.52 | 0.78 | 0.49 |
| Avail Cap(c_a), veh/h | 1215 | 1276 | | 1205 | 1780 | | 121 | 1576 | 823 | 219 | 2558 | 1142 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.5 | 45.9 | 0.0 | 55.3 | 55.5 | 0.0 | 60.3 | 37.7 | 37.7 | 54.3 | 32.0 | 11.8 |
| Incr Delay (d2), s/veh | 1.8 | 0.6 | 0.0 | 1.2 | 0.9 | 0.0 | 4.4 | 2.3 | 4.3 | 2.2 | 1.3 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.7 | 6.9 | 0.0 | 3.5 | 3.6 | 0.0 | 2.1 | 14.4 | 15.4 | 3.7 | 15.5 | 13.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.3 | 46.5 | 0.0 | 56.6 | 56.4 | 0.0 | 64.7 | 40.0 | 42.0 | 56.5 | 33.3 | 12.1 |
| LnGrp LOS | D | D | | E | E | | E | D | D | E | C | B |
| Approach Vol, veh/h | | 1080 | A | | 557 | A | | 1557 | | | 2335 | |
| Approach Delay, s/veh | | 48.6 | | | 56.5 | | | 41.6 | | | 29.8 | |
| Approach LOS | | D | | | E | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.4 | 63.2 | | 35.3 | 22.4 | 54.3 | | 20.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 66.1 | | 45.0 | * 14 | * 61 | | 46.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.3 | 39.8 | | 23.4 | 9.9 | 36.2 | | 10.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 17.3 | | 5.7 | 0.1 | 11.7 | | 3.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 39.5 |
| HCM 6th LOS | D |

Notes

User approved volume balancing among the lanes for turning movement.

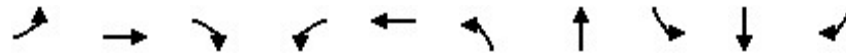
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

12/07/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 104 | 976 | 279 | 48 | 908 | 372 | 123 | 32 | 287 | 278 |
| v/c Ratio | 0.54 | 0.53 | 0.29 | 0.30 | 0.58 | 0.62 | 0.18 | 0.14 | 0.60 | 0.53 |
| Control Delay | 62.5 | 31.5 | 7.3 | 60.9 | 35.5 | 49.9 | 26.4 | 54.4 | 44.0 | 20.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.5 | 31.5 | 7.3 | 60.9 | 35.5 | 49.9 | 26.4 | 54.4 | 44.0 | 20.2 |
| Queue Length 50th (ft) | 69 | 201 | 41 | 32 | 191 | 124 | 59 | 20 | 174 | 65 |
| Queue Length 95th (ft) | 160 | 328 | 112 | 91 | 324 | 229 | 126 | 66 | 340 | 187 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 367 | 2877 | 1166 | 217 | 2433 | 1068 | 1131 | 267 | 860 | 817 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.34 | 0.24 | 0.22 | 0.37 | 0.35 | 0.11 | 0.12 | 0.33 | 0.34 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 99 | 927 | 265 | 46 | 830 | 32 | 353 | 97 | 20 | 30 | 273 | 264 |
| Future Volume (veh/h) | 99 | 927 | 265 | 46 | 830 | 32 | 353 | 97 | 20 | 30 | 273 | 264 |
| 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 | 104 | 976 | 279 | 48 | 874 | 34 | 372 | 102 | 0 | 32 | 287 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 138 | 2021 | 838 | 120 | 1946 | 76 | 502 | 537 | | 151 | 403 | |
| Arrive On Green | 0.08 | 0.40 | 0.38 | 0.07 | 0.39 | 0.36 | 0.15 | 0.29 | 0.00 | 0.08 | 0.22 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5043 | 196 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 104 | 976 | 279 | 48 | 589 | 319 | 372 | 102 | 0 | 32 | 287 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1835 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 5.6 | 13.9 | 9.8 | 2.5 | 12.5 | 12.6 | 10.0 | 4.0 | 0.0 | 1.6 | 13.8 | 0.0 |
| Cycle Q Clear(g_c), s | 5.6 | 13.9 | 9.8 | 2.5 | 12.5 | 12.6 | 10.0 | 4.0 | 0.0 | 1.6 | 13.8 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 138 | 2021 | 838 | 120 | 1313 | 708 | 502 | 537 | | 151 | 403 | |
| V/C Ratio(X) | 0.75 | 0.48 | 0.33 | 0.40 | 0.45 | 0.45 | 0.74 | 0.19 | | 0.21 | 0.71 | |
| Avail Cap(c_a), veh/h | 404 | 3156 | 1190 | 239 | 1788 | 964 | 1175 | 1272 | | 294 | 944 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 43.9 | 21.9 | 13.1 | 43.4 | 22.1 | 22.3 | 39.7 | 26.1 | 0.0 | 41.4 | 35.3 | 0.0 |
| Incr Delay (d2), s/veh | 3.1 | 0.4 | 0.5 | 0.8 | 0.5 | 1.0 | 0.8 | 0.4 | 0.0 | 0.3 | 4.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 5.5 | 3.4 | 1.1 | 5.0 | 5.5 | 4.3 | 1.8 | 0.0 | 0.7 | 6.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.0 | 22.3 | 13.6 | 44.2 | 22.7 | 23.2 | 40.6 | 26.4 | 0.0 | 41.7 | 40.2 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1359 | | | 956 | | | 474 | A | | 319 | A |
| Approach Delay, s/veh | | 22.4 | | | 23.9 | | | 37.5 | | | 40.4 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.5 | 41.5 | 18.1 | 26.0 | 10.5 | 42.4 | 12.2 | 31.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 22.0 | 48.7 | * 32 | * 47 | 13.0 | 57.7 | * 15 | 63.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.6 | 14.6 | 12.0 | 15.8 | 4.5 | 15.9 | 3.6 | 6.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.4 | 0.7 | 3.5 | 0.0 | 20.3 | 0.0 | 1.2 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 27.0 |
| HCM 6th LOS | C |

Notes

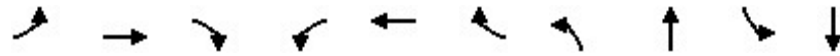
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

10: Sepulveda Blvd & Slauson Ave

12/07/2020

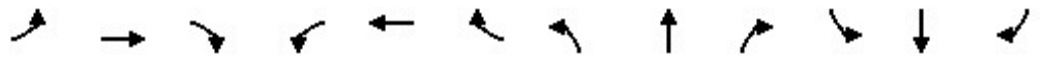


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 393 | 252 | 199 | 279 | 274 | 153 | 1349 | 311 | 1593 |
| v/c Ratio | 0.29 | 0.63 | 0.50 | 0.62 | 0.39 | 0.46 | 0.50 | 0.57 | 0.71 | 0.62 |
| Control Delay | 55.2 | 49.6 | 13.8 | 61.2 | 43.5 | 11.9 | 58.3 | 25.5 | 59.9 | 23.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Total Delay | 55.2 | 49.6 | 13.8 | 61.2 | 43.5 | 11.9 | 58.3 | 25.5 | 59.9 | 24.2 |
| Queue Length 50th (ft) | 36 | 154 | 59 | 78 | 106 | 62 | 59 | 252 | 121 | 290 |
| Queue Length 95th (ft) | 76 | 176 | 89 | 116 | 125 | 88 | 94 | 397 | 169 | 462 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 171 | 1055 | 509 | 323 | 1032 | 607 | 320 | 2355 | 457 | 2573 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 460 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.37 | 0.50 | 0.62 | 0.27 | 0.45 | 0.48 | 0.57 | 0.68 | 0.75 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | ↗ | ↘↗ | ↑↑↗ | | ↘↗ | ↑↑↗ | |
| Traffic Volume (veh/h) | 47 | 373 | 239 | 189 | 265 | 260 | 145 | 1210 | 71 | 295 | 1491 | 23 |
| Future Volume (veh/h) | 47 | 373 | 239 | 189 | 265 | 260 | 145 | 1210 | 71 | 295 | 1491 | 23 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.93 | 1.00 | | 0.93 | 1.00 | | 0.94 |
| 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 | 49 | 393 | 252 | 199 | 279 | 274 | 153 | 1274 | 75 | 311 | 1569 | 24 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 140 | 891 | 507 | 305 | 963 | 733 | 298 | 1484 | 87 | 730 | 2229 | 34 |
| Arrive On Green | 0.08 | 0.25 | 0.25 | 0.09 | 0.27 | 0.27 | 0.09 | 0.30 | 0.29 | 0.21 | 0.43 | 0.41 |
| Sat Flow, veh/h | 1781 | 3554 | 1500 | 3456 | 3554 | 1481 | 3456 | 4909 | 289 | 3456 | 5175 | 79 |
| Grp Volume(v), veh/h | 49 | 393 | 252 | 199 | 279 | 274 | 153 | 883 | 466 | 311 | 1032 | 561 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1500 | 1728 | 1777 | 1481 | 1728 | 1702 | 1794 | 1728 | 1702 | 1850 |
| Q Serve(g_s), s | 3.1 | 11.2 | 11.0 | 6.7 | 7.5 | 2.7 | 5.1 | 29.3 | 29.4 | 9.4 | 29.7 | 29.7 |
| Cycle Q Clear(g_c), s | 3.1 | 11.2 | 11.0 | 6.7 | 7.5 | 2.7 | 5.1 | 29.3 | 29.4 | 9.4 | 29.7 | 29.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 140 | 891 | 507 | 305 | 963 | 733 | 298 | 1029 | 542 | 730 | 1466 | 797 |
| V/C Ratio(X) | 0.35 | 0.44 | 0.50 | 0.65 | 0.29 | 0.37 | 0.51 | 0.86 | 0.86 | 0.43 | 0.70 | 0.70 |
| Avail Cap(c_a), veh/h | 172 | 1060 | 578 | 311 | 1036 | 763 | 323 | 1174 | 619 | 730 | 1466 | 797 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.48 | 0.48 | 0.48 |
| Uniform Delay (d), s/veh | 52.4 | 37.9 | 15.8 | 52.9 | 34.6 | 8.3 | 52.4 | 39.4 | 39.6 | 41.0 | 27.9 | 28.0 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.3 | 3.7 | 0.1 | 0.1 | 0.5 | 9.3 | 16.1 | 0.1 | 1.4 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 4.9 | 3.7 | 3.1 | 3.2 | 2.6 | 2.2 | 13.5 | 15.3 | 4.0 | 12.2 | 13.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.9 | 38.0 | 16.0 | 56.6 | 34.7 | 8.4 | 52.9 | 48.7 | 55.7 | 41.1 | 29.3 | 30.5 |
| LnGrp LOS | D | D | B | E | C | A | D | D | E | D | C | C |
| Approach Vol, veh/h | | 694 | | | 752 | | | 1502 | | | 1904 | |
| Approach Delay, s/veh | | 31.1 | | | 30.9 | | | 51.3 | | | 31.6 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 55.7 | 15.9 | 34.1 | 29.7 | 40.3 | 13.5 | 36.5 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.8 | * 44 | * 10 | * 34 | 14.4 | * 40 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.1 | 31.7 | 8.7 | 13.2 | 11.4 | 31.4 | 5.1 | 9.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.8 | 0.0 | 0.7 | 0.0 | 2.0 | 0.0 | 0.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 37.5 |
| HCM 6th LOS | D |

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

12/07/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 198 | 313 | 49 | 997 | 124 | 38 | 1447 | 81 |
| v/c Ratio | 0.47 | 0.90 | 0.30 | 0.42 | 0.11 | 0.12 | 0.60 | 0.07 |
| Control Delay | 36.9 | 69.5 | 21.1 | 12.6 | 5.3 | 10.1 | 13.0 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.9 | 69.5 | 21.1 | 12.6 | 5.3 | 10.1 | 13.0 | 6.1 |
| Queue Length 50th (ft) | 119 | 230 | 31 | 343 | 12 | 9 | 293 | 13 |
| Queue Length 95th (ft) | 172 | 312 | m54 | 438 | m90 | 31 | 457 | 38 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 579 | 486 | 161 | 2399 | 1091 | 309 | 2399 | 1082 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.64 | 0.30 | 0.42 | 0.11 | 0.12 | 0.60 | 0.07 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

12/07/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | ↗ | ↕ | ↖ | ↗ | ↕ | ↖ |
| Traffic Volume (veh/h) | 29 | 108 | 50 | 91 | 164 | 42 | 47 | 947 | 118 | 36 | 1375 | 77 |
| Future Volume (veh/h) | 29 | 108 | 50 | 91 | 164 | 42 | 47 | 947 | 118 | 36 | 1375 | 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 | 31 | 114 | 53 | 96 | 173 | 44 | 49 | 997 | 124 | 38 | 1447 | 81 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 73 | 242 | 102 | 137 | 210 | 50 | 227 | 2477 | 1105 | 351 | 2477 | 1105 |
| Arrive On Green | 0.24 | 0.24 | 0.23 | 0.24 | 0.24 | 0.23 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Sat Flow, veh/h | 162 | 1023 | 433 | 415 | 889 | 213 | 341 | 3554 | 1585 | 502 | 3554 | 1585 |
| Grp Volume(v), veh/h | 198 | 0 | 0 | 313 | 0 | 0 | 49 | 997 | 124 | 38 | 1447 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1618 | 0 | 0 | 1518 | 0 | 0 | 341 | 1777 | 1585 | 502 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | 10.3 | 14.2 | 3.1 | 4.1 | 25.0 | 2.0 |
| Cycle Q Clear(g_c), s | 11.9 | 0.0 | 0.0 | 24.0 | 0.0 | 0.0 | 35.3 | 14.2 | 3.1 | 18.3 | 25.0 | 2.0 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 417 | 0 | 0 | 398 | 0 | 0 | 227 | 2477 | 1105 | 351 | 2477 | 1105 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.00 | 0.79 | 0.00 | 0.00 | 0.22 | 0.40 | 0.11 | 0.11 | 0.58 | 0.07 |
| Avail Cap(c_a), veh/h | 617 | 0 | 0 | 590 | 0 | 0 | 227 | 2477 | 1105 | 351 | 2477 | 1105 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.6 | 0.0 | 0.0 | 44.3 | 0.0 | 0.0 | 18.3 | 7.6 | 6.0 | 11.5 | 9.3 | 5.8 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 2.2 | 0.5 | 0.2 | 0.3 | 0.6 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.1 | 0.0 | 0.0 | 9.2 | 0.0 | 0.0 | 0.9 | 4.9 | 1.0 | 0.5 | 8.5 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 39.9 | 0.0 | 0.0 | 46.6 | 0.0 | 0.0 | 20.5 | 8.1 | 6.2 | 11.8 | 9.8 | 5.9 |
| LnGrp LOS | D | A | A | D | A | A | C | A | A | B | A | A |
| Approach Vol, veh/h | | 198 | | | 313 | | | 1170 | | | | 1566 |
| Approach Delay, s/veh | | 39.9 | | | 46.6 | | | 8.4 | | | | 9.7 |
| Approach LOS | | D | | | D | | | A | | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 87.7 | | 32.3 | | 87.7 | | 32.3 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 67.3 | | * 42 | | 67.3 | | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | | 37.3 | | 13.9 | | 27.0 | | 26.0 | | | | |
| Green Ext Time (p_c), s | | 16.8 | | 0.8 | | 27.8 | | 1.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.6 |
| HCM 6th LOS | B |

Notes

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

Future Buildout Year (2045) AM

Queues

1: Culver Blvd & Sepulveda Blvd

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|-------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 293 | 1355 | 72 | 158 | 1357 | 274 | 1336 | 286 | 91 | 549 | 206 |
| v/c Ratio | 0.75 | 1.13 | 0.11 | 0.48 | 0.84 | 0.68 | 1.13 | 0.46 | 0.38 | 0.49 | 0.33 |
| Control Delay | 64.6 | 107.5 | 0.4 | 57.0 | 43.5 | 60.0 | 108.3 | 14.6 | 46.1 | 35.2 | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.6 | 107.5 | 0.4 | 57.0 | 43.5 | 60.0 | 108.3 | 14.6 | 46.1 | 35.2 | 6.4 |
| Queue Length 50th (ft) | 114 | ~641 | 0 | 60 | 354 | 105 | ~633 | 62 | 51 | 182 | 4 |
| Queue Length 95th (ft) | #172 | #780 | 0 | 96 | 416 | 152 | #771 | 143 | 93 | 238 | 60 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 389 | 1197 | 644 | 326 | 1611 | 429 | 1179 | 621 | 238 | 1120 | 619 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 1.13 | 0.11 | 0.48 | 0.84 | 0.64 | 1.13 | 0.46 | 0.38 | 0.49 | 0.33 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

































95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/24/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |   |  |   |    | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 278 | 1287 | 68 | 150 | 1199 | 90 | 260 | 1269 | 272 | 86 | 522 | 196 |
| Future Volume (veh/h) | 278 | 1287 | 68 | 150 | 1199 | 90 | 260 | 1269 | 272 | 86 | 522 | 196 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| 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 | 293 | 1355 | 72 | 158 | 1262 | 95 | 274 | 1336 | 286 | 91 | 549 | 206 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 363 | 1202 | 519 | 2145 | 4186 | 315 | 358 | 1185 | 508 | 230 | 1189 | 507 |
| Arrive On Green | 0.11 | 0.34 | 0.34 | 0.62 | 0.87 | 0.85 | 0.10 | 0.33 | 0.33 | 0.10 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3456 | 3554 | 1535 | 3456 | 4836 | 364 | 3456 | 3554 | 1524 | 1781 | 3554 | 1515 |
| Grp Volume(v), veh/h | 293 | 1355 | 72 | 158 | 888 | 469 | 274 | 1336 | 286 | 91 | 549 | 206 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1535 | 1728 | 1702 | 1796 | 1728 | 1777 | 1524 | 1781 | 1777 | 1515 |
| Q Serve(g_s), s | 9.9 | 40.6 | 5.9 | 2.2 | 5.7 | 5.8 | 9.3 | 40.0 | 18.5 | 1.6 | 14.6 | 12.6 |
| Cycle Q Clear(g_c), s | 9.9 | 40.6 | 5.9 | 2.2 | 5.7 | 5.8 | 9.3 | 40.0 | 18.5 | 1.6 | 14.6 | 12.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 363 | 1202 | 519 | 2145 | 2947 | 1555 | 358 | 1185 | 508 | 230 | 1189 | 507 |
| V/C Ratio(X) | 0.81 | 1.13 | 0.14 | 0.07 | 0.30 | 0.30 | 0.77 | 1.13 | 0.56 | 0.40 | 0.46 | 0.41 |
| Avail Cap(c_a), veh/h | 392 | 1202 | 519 | 2145 | 2947 | 1555 | 432 | 1185 | 508 | 238 | 1189 | 507 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.5 | 39.7 | 63.4 | 9.0 | 1.5 | 1.5 | 52.4 | 40.0 | 32.8 | 49.3 | 31.4 | 30.7 |
| Incr Delay (d2), s/veh | 13.1 | 68.3 | 0.6 | 0.0 | 0.3 | 0.5 | 5.1 | 68.7 | 2.4 | 0.4 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.0 | 28.8 | 2.4 | 0.8 | 1.1 | 1.3 | 4.3 | 28.5 | 7.1 | 2.5 | 6.4 | 4.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 65.7 | 108.0 | 64.0 | 9.0 | 1.7 | 2.0 | 57.5 | 108.7 | 35.2 | 49.7 | 32.0 | 31.9 |
| LnGrp LOS | E | F | E | A | A | A | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1720 | | | 1515 | | | 1896 | | | 846 | |
| Approach Delay, s/veh | | 98.9 | | | 2.6 | | | 90.3 | | | 33.9 | |
| Approach LOS | | F | | | A | | | F | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 16.6 | 109.8 | 16.6 | 44.0 | 81.8 | 44.6 | 16.4 | 44.2 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 13.2 | * 37 | * 11 | * 38 | * 11 | * 39 | 14.0 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.9 | 7.8 | 3.6 | 42.0 | 4.2 | 42.6 | 11.3 | 16.6 | | | | |
| Green Ext Time (p_c), s | 0.3 | 19.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 | 7.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 62.5 | | | | | | | | |
| HCM 6th LOS | | | | E | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 186 | 614 | 408 | 62 | 994 | 481 | 448 | 912 | 333 | 1005 | 431 |
| v/c Ratio | 0.92 | 0.57 | 0.53 | 0.27 | 0.96 | 0.66 | 0.92 | 0.81 | 0.70 | 0.89 | 0.64 |
| Control Delay | 97.5 | 38.9 | 12.2 | 50.9 | 62.6 | 19.0 | 51.1 | 24.8 | 58.5 | 50.3 | 17.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 97.5 | 38.9 | 12.2 | 50.9 | 62.6 | 19.0 | 51.1 | 24.8 | 58.5 | 50.3 | 17.0 |
| Queue Length 50th (ft) | 144 | 227 | 96 | 43 | 398 | 150 | 172 | 351 | 130 | 390 | 99 |
| Queue Length 95th (ft) | #282 | 268 | 159 | 91 | #537 | 232 | m#212 | m422 | #190 | #510 | 216 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 206 | 1191 | 767 | 231 | 1032 | 726 | 486 | 1166 | 475 | 1126 | 675 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.52 | 0.53 | 0.27 | 0.96 | 0.66 | 0.92 | 0.78 | 0.70 | 0.89 | 0.64 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Jefferson Blvd & Overland Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 177 | 583 | 388 | 59 | 944 | 457 | 426 | 818 | 48 | 316 | 955 | 409 |
| Future Volume (veh/h) | 177 | 583 | 388 | 59 | 944 | 457 | 426 | 818 | 48 | 316 | 955 | 409 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 186 | 614 | 408 | 62 | 994 | 481 | 448 | 861 | 0 | 333 | 1005 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 208 | 939 | 624 | 230 | 1036 | 680 | 490 | 1075 | | 521 | 1125 | |
| Arrive On Green | 0.12 | 0.26 | 0.26 | 0.13 | 0.29 | 0.29 | 0.14 | 0.30 | 0.00 | 0.15 | 0.32 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1555 | 1781 | 3554 | 1534 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 186 | 614 | 408 | 62 | 994 | 481 | 448 | 861 | 0 | 333 | 1005 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1555 | 1781 | 1777 | 1534 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 12.4 | 18.4 | 14.6 | 3.8 | 33.0 | 7.6 | 15.3 | 26.8 | 0.0 | 10.9 | 32.3 | 0.0 |
| Cycle Q Clear(g_c), s | 12.4 | 18.4 | 14.6 | 3.8 | 33.0 | 7.6 | 15.3 | 26.8 | 0.0 | 10.9 | 32.3 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 208 | 939 | 624 | 230 | 1036 | 680 | 490 | 1075 | | 521 | 1125 | |
| V/C Ratio(X) | 0.90 | 0.65 | 0.65 | 0.27 | 0.96 | 0.71 | 0.92 | 0.80 | | 0.64 | 0.89 | |
| Avail Cap(c_a), veh/h | 208 | 1111 | 699 | 230 | 1036 | 680 | 490 | 1179 | | 521 | 1125 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.3 | 39.3 | 11.9 | 47.1 | 41.8 | 10.8 | 50.8 | 38.5 | 0.0 | 47.9 | 39.1 | 0.0 |
| Incr Delay (d2), s/veh | 34.5 | 1.9 | 3.0 | 0.2 | 19.1 | 4.3 | 21.4 | 6.3 | 0.0 | 2.0 | 10.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.5 | 8.3 | 5.2 | 1.7 | 17.0 | 6.3 | 8.1 | 12.5 | 0.0 | 4.8 | 15.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 86.7 | 41.1 | 14.8 | 47.4 | 60.9 | 15.0 | 72.2 | 44.8 | 0.0 | 49.9 | 50.0 | 0.0 |
| LnGrp LOS | F | D | B | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1208 | | | 1537 | | | 1309 | A | | 1338 | A |
| Approach Delay, s/veh | | 39.3 | | | 46.0 | | | 54.2 | | | 50.0 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 22.7 | 40.3 | 21.3 | 35.7 | 21.0 | 42.0 | 18.0 | 39.0 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 5.8 | * 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 13.9 | * 38 | 11.5 | * 36 | 16.1 | * 36 | 14.0 | 33.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 12.9 | 28.8 | 5.8 | 20.4 | 17.3 | 34.3 | 14.4 | 35.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.8 | 0.0 | 8.7 | 0.0 | 1.4 | 0.0 | 0.0 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 47.5 |
| HCM 6th LOS | D |

Notes

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

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

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
AM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,751 | 1,411 | 80.6% | 7.5 | 2.3 | A |
| | Right Turn | 72 | 53 | 73.9% | 5.3 | 2.9 | A |
| | Subtotal | 1,823 | 1,464 | 80.3% | 7.4 | 2.3 | A |
| SB | Left Turn | 116 | 113 | 97.6% | 59.3 | 6.4 | E |
| | Through | 479 | 493 | 103.0% | 7.7 | 1.8 | A |
| | Right Turn | 6 | 8 | 130.0% | 6.4 | 3.2 | A |
| | Subtotal | 601 | 614 | 102.2% | 18.3 | 1.7 | B |
| EB | Left Turn | 9 | 9 | 103.3% | 31.4 | 30.8 | C |
| | Through | 7 | 6 | 81.4% | 30.5 | 27.5 | C |
| | Right Turn | 7 | 8 | 115.7% | 18.2 | 25.4 | B |
| | Subtotal | 23 | 23 | 100.4% | 29.5 | 18.4 | C |
| WB | Left Turn | 27 | 21 | 79.3% | 56.8 | 24.4 | E |
| | Through | 1 | 2 | 190.0% | 3.3 | 7.8 | A |
| | Right Turn | 327 | 262 | 80.2% | 14.8 | 2.5 | B |
| | Subtotal | 355 | 286 | 80.5% | 18.5 | 2.8 | B |
| Total | | 2,802 | 2,387 | 85.2% | 11.9 | 1.8 | B |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 25 | 20 | 78.8% | 22.1 | 5.0 | C |
| | Through | 1,550 | 1,204 | 77.7% | 14.9 | 3.4 | B |
| | Right Turn | 30 | 24 | 80.3% | 11.2 | 4.3 | B |
| | Subtotal | 1,605 | 1,248 | 77.7% | 15.0 | 3.4 | B |
| SB | Left Turn | 66 | 52 | 78.3% | 42.0 | 20.7 | D |
| | Through | 1,208 | 981 | 81.2% | 78.0 | 17.0 | E |
| | Right Turn | 306 | 243 | 79.4% | 42.5 | 13.6 | D |
| | Subtotal | 1,580 | 1,276 | 80.7% | 70.0 | 16.7 | E |
| EB | Left Turn | 154 | 137 | 88.8% | 37.0 | 11.7 | D |
| | Through | 24 | 22 | 89.6% | 46.7 | 20.4 | D |
| | Right Turn | 17 | 15 | 90.6% | 20.8 | 15.2 | C |
| | Subtotal | 195 | 174 | 89.1% | 36.0 | 10.8 | D |
| WB | Left Turn | 13 | 15 | 112.3% | 44.5 | 15.8 | D |
| | Through | 24 | 24 | 99.6% | 47.8 | 13.0 | D |
| | Right Turn | 30 | 31 | 103.3% | 19.1 | 5.9 | B |
| | Subtotal | 67 | 70 | 103.7% | 34.5 | 6.6 | C |
| Total | | 3,447 | 2,767 | 80.3% | 42.0 | 8.2 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 13 | 10 | 78.5% | 3.0 | 4.0 | A |
| | Through | 1,774 | 1,418 | 79.9% | 0.5 | 0.1 | A |
| | Right Turn | 12 | 9 | 73.3% | 0.0 | 0.1 | A |
| | Subtotal | 1,799 | 1,437 | 79.9% | 0.5 | 0.1 | A |
| SB | Left Turn | 3 | 2 | 53.3% | 8.6 | 13.1 | A |
| | Through | 490 | 502 | 102.4% | 1.4 | 0.3 | A |
| | Right Turn | 20 | 20 | 98.5% | 0.6 | 0.4 | A |
| | Subtotal | 513 | 523 | 101.9% | 1.4 | 0.3 | A |
| EB | Left Turn | 44 | 41 | 92.3% | 19.6 | 7.8 | C |
| | Through | 1 | 1 | 120.0% | 5.2 | 11.6 | A |
| | Right Turn | 7 | 8 | 114.3% | 4.2 | 3.0 | A |
| | Subtotal | 52 | 50 | 95.8% | 17.4 | 7.1 | C |
| WB | Left Turn | 4 | 4 | 87.5% | 12.8 | 13.2 | B |
| | Through | 1 | 1 | 130.0% | 8.4 | 15.0 | A |
| | Right Turn | 5 | 4 | 88.0% | 6.0 | 7.1 | A |
| | Subtotal | 10 | 9 | 92.0% | 12.5 | 12.5 | B |
| Total | | 2,374 | 2,019 | 85.1% | 1.3 | 0.2 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,605 | 1,246 | 77.6% | 5.2 | 0.7 | A |
| | Right Turn | 1,605 | 1,248 | 77.7% | 4.6 | 0.2 | A |
| | Subtotal | 3,210 | 2,494 | 77.7% | 4.9 | 0.3 | A |
| SB | Left Turn | | | | | | |
| | Through | 546 | 557 | 102.1% | 53.3 | 4.3 | D |
| | Right Turn | 3 | 4 | 140.0% | 12.7 | 23.2 | B |
| | Subtotal | 549 | 561 | 102.3% | 53.2 | 4.3 | D |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,216 | 989 | 81.3% | 101.3 | 3.3 | F |
| | Through | 2 | 2 | 110.0% | 41.7 | 47.2 | D |
| | Right Turn | 20 | 16 | 79.5% | 70.7 | 30.2 | E |
| | Subtotal | 1,238 | 1,007 | 81.3% | 100.8 | 3.2 | F |
| Total | | 4,997 | 4,062 | 81.3% | 36.7 | 1.6 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
AM Peak Hour

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 195 | 156 | 80.2% | 103.4 | 26.2 | F |
| | Through | 2,790 | 2,091 | 75.0% | 84.9 | 7.1 | F |
| | Right Turn | 46 | 36 | 78.3% | 81.9 | 16.7 | F |
| | Subtotal | 3,031 | 2,284 | 75.3% | 86.2 | 8.4 | F |
| SB | Left Turn | 90 | 82 | 90.6% | 50.5 | 8.6 | D |
| | Through | 1,422 | 1,246 | 87.6% | 10.7 | 2.3 | B |
| | Right Turn | 250 | 218 | 87.1% | 5.2 | 1.7 | A |
| | Subtotal | 1,762 | 1,545 | 87.7% | 11.8 | 2.1 | B |
| EB | Left Turn | 200 | 178 | 89.0% | 334.3 | 68.7 | F |
| | Through | 202 | 184 | 90.8% | 301.3 | 63.5 | F |
| | Right Turn | 81 | 72 | 88.9% | 280.7 | 57.2 | F |
| | Subtotal | 483 | 434 | 89.8% | 313.1 | 66.3 | F |
| WB | Left Turn | 95 | 96 | 101.3% | 51.9 | 12.2 | D |
| | Through | 200 | 198 | 99.1% | 37.9 | 4.2 | D |
| | Right Turn | 220 | 225 | 102.1% | 14.0 | 2.6 | B |
| | Subtotal | 515 | 519 | 100.8% | 31.0 | 2.7 | C |
| Total | | 5,791 | 4,782 | 82.6% | 77.5 | 5.1 | E |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 2 | 50 | 6 | 50 | 11 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 400 | 75 | 13 | 150 | 27 | 200 | 37 | 0% | 0% |
| | Through/Right | 400 | 100 | 13 | 175 | 27 | 225 | 29 | 0% | 0% |
| SB | Left Turn | 225 | 75 | 9 | 125 | 21 | 150 | 41 | 0% | 0% |
| | Through | 375 | 50 | 9 | 125 | 25 | 200 | 47 | 9% | 0% |
| | Right Turn | 50 | 25 | 2 | 25 | 6 | 50 | 9 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 4 | 50 | 13 | 75 | 24 | 0% | 0% |
| | Right Turn | 600 | 25 | 5 | 75 | 11 | 100 | 23 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 100 | 10 | 200 | 14 | 200 | 12 | 2% | 0% |
| | Through | 600 | 25 | 10 | 75 | 38 | 100 | 64 | 0% | 0% |
| | Right Turn | 600 | 25 | 2 | 50 | 5 | 50 | 13 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 8 | 75 | 39 | 150 | 100 | 0% | 0% |
| | Through | 475 | 150 | 25 | 400 | 56 | 500 | 31 | 3% | 0% |
| | Through/Right | 475 | 175 | 22 | 400 | 52 | 500 | 43 | 0% | 0% |
| SB | Left Turn | 200 | 75 | 15 | 200 | 32 | 225 | 0 | 0% | 0% |
| | Through | 750 | 625 | 73 | 900 | 92 | 800 | 19 | 51% | 10% |
| | Right Turn | 375 | 325 | 44 | 525 | 13 | 400 | 0 | 1% | 0% |
| WB | Left Turn | 150 | 25 | 3 | 50 | 4 | 75 | 7 | 0% | 0% |
| | Through/Right | 150 | 50 | 6 | 100 | 12 | 125 | 18 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 3 | 75 | 11 | 100 | 25 | 4% | 0% |
| | Right Turn | 75 | 25 | 2 | 50 | 7 | 75 | 23 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 2 | 25 | 5 | 50 | 7 | 0% | 0% |
| | Through | 125 | 25 | 0 | 25 | 4 | 25 | 12 | 0% | 0% |
| | Through/Right | 125 | 25 | 0 | 25 | 3 | 25 | 8 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 1 | 25 | 8 | 25 | 14 | 0% | 0% |
| | Through | 125 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Right Turn | 125 | 25 | 0 | 25 | 3 | 25 | 7 | 0% | 0% |
| WB | Shared | 125 | 25 | 4 | 50 | 8 | 50 | 15 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 6 | 100 | 9 | 100 | 22 | 0% | 0% |
| | Right Turn | 225 | 25 | 2 | 25 | 15 | 50 | 44 | 0% | 0% |
| SB | Through | 175 | 175 | 5 | 225 | 17 | 250 | 26 | 0% | 8% |
| | Through/Right | 175 | 150 | 8 | 225 | 16 | 225 | 26 | 0% | 4% |
| WB | Left Turn | 475 | 475 | 17 | 550 | 29 | 500 | 7 | 39% | 21% |
| | Shared | 300 | 325 | 4 | 325 | 16 | 325 | 0 | 18% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 150 | 2 | 175 | 6 | 150 | 0 | 28% | 28% |
| | Through | 150 | 225 | 2 | 250 | 6 | 250 | 8 | 56% | 73% |
| | Right Turn | 50 | 50 | 6 | 100 | 5 | 75 | 1 | 5% | 0% |
| NB | Left Turn | 275 | 200 | 12 | 300 | 11 | 250 | 0 | 1% | 1% |
| | Through | 275 | 350 | 9 | 375 | 18 | 375 | 16 | 46% | 47% |
| | Through/Right | 250 | 250 | 2 | 275 | 5 | 275 | 0 | 26% | 10% |
| SB | Left Turn | 175 | 75 | 6 | 100 | 10 | 125 | 22 | 0% | 0% |
| | Through | 225 | 125 | 10 | 250 | 32 | 300 | 54 | 0% | 1% |
| | Through/Right | 225 | 50 | 9 | 125 | 33 | 250 | 51 | 0% | 0% |
| WB | Left Turn | 100 | 100 | 7 | 150 | 4 | 125 | 0 | 14% | 0% |
| | Through | 325 | 175 | 15 | 275 | 40 | 325 | 45 | 23% | 1% |
| | Through/Right | 325 | 100 | 10 | 175 | 22 | 200 | 39 | 0% | 0% |

Queues

8: Sepulveda BI & Jefferson BI

11/24/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|-------|------|------|------|
| Lane Group Flow (vph) | 457 | 475 | 132 | 954 | 41 | 2033 | 74 | 924 | 685 |
| v/c Ratio | 0.60 | 0.61 | 0.17 | 1.49dr | 0.36 | 1.13 | 0.58 | 0.48 | 0.61 |
| Control Delay | 56.2 | 56.2 | 51.5 | 61.4 | 82.8 | 113.8 | 92.3 | 40.2 | 12.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.3 |
| Total Delay | 56.2 | 56.2 | 51.5 | 61.4 | 82.8 | 114.3 | 92.3 | 40.2 | 12.7 |
| Queue Length 50th (ft) | 248 | 258 | 59 | 325 | 43 | ~960 | 79 | 292 | 266 |
| Queue Length 95th (ft) | 317 | 327 | 91 | 384 | 88 | #1049 | #145 | 339 | 387 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 848 | 873 | 799 | 1152 | 115 | 1792 | 127 | 1936 | 1163 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 239 | 0 | 0 | 110 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.54 | 0.54 | 0.17 | 0.83 | 0.36 | 1.31 | 0.58 | 0.48 | 0.65 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 612 | 262 | 11 | 125 | 279 | 627 | 39 | 1838 | 93 | 70 | 878 | 651 |
| Future Volume (veh/h) | 612 | 262 | 11 | 125 | 279 | 627 | 39 | 1838 | 93 | 70 | 878 | 651 |
| 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 | 555 | 401 | 0 | 132 | 294 | 0 | 41 | 1935 | 98 | 74 | 924 | 685 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 777 | 815 | | 416 | 614 | | 117 | 2199 | 111 | 152 | 2387 | 1088 |
| Arrive On Green | 0.22 | 0.22 | 0.00 | 0.12 | 0.12 | 0.00 | 0.07 | 0.44 | 0.42 | 0.09 | 0.47 | 0.47 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4978 | 251 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 555 | 401 | 0 | 132 | 294 | 0 | 41 | 1322 | 711 | 74 | 924 | 685 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1825 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 18.0 | 11.7 | 0.0 | 4.4 | 6.7 | 0.0 | 2.7 | 44.2 | 44.5 | 4.9 | 14.7 | 29.8 |
| Cycle Q Clear(g_c), s | 18.0 | 11.7 | 0.0 | 4.4 | 6.7 | 0.0 | 2.7 | 44.2 | 44.5 | 4.9 | 14.7 | 29.8 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 777 | 815 | | 416 | 614 | | 117 | 1504 | 806 | 152 | 2387 | 1088 |
| V/C Ratio(X) | 0.71 | 0.49 | | 0.32 | 0.48 | | 0.35 | 0.88 | 0.88 | 0.49 | 0.39 | 0.63 |
| Avail Cap(c_a), veh/h | 1265 | 1329 | | 1025 | 1515 | | 149 | 1537 | 824 | 163 | 2387 | 1088 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.2 | 42.7 | 0.0 | 50.2 | 51.2 | 0.0 | 55.7 | 31.8 | 32.0 | 54.4 | 21.6 | 10.8 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.0 | 0.4 | 0.6 | 0.0 | 1.8 | 6.1 | 10.9 | 2.4 | 0.1 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.1 | 5.5 | 0.0 | 1.9 | 2.9 | 0.0 | 1.3 | 18.8 | 21.4 | 2.3 | 5.8 | 18.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.4 | 43.2 | 0.0 | 50.6 | 51.8 | 0.0 | 57.4 | 37.9 | 42.9 | 56.9 | 21.7 | 12.0 |
| LnGrp LOS | D | D | | D | D | | E | D | D | E | C | B |
| Approach Vol, veh/h | | 956 | A | | 426 | A | | 2074 | | | 1683 | |
| Approach Delay, s/veh | | 45.1 | | | 51.4 | | | 40.0 | | | 19.3 | |
| Approach LOS | | D | | | D | | | D | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.2 | 62.3 | | 31.2 | 15.4 | 59.1 | | 19.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 55.1 | | 42.0 | * 10 | * 54 | | 36.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 31.8 | | 20.0 | 6.9 | 46.5 | | 8.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.2 | | 4.9 | 0.0 | 6.2 | | 2.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.1 |
| HCM 6th LOS | D |

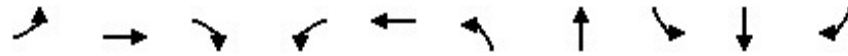
Notes

- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
- Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Queues

9: Slauson Ave & Jefferson BI

11/24/2020



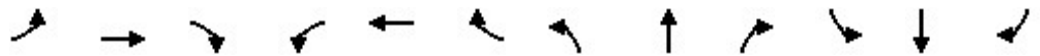
| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 165 | 929 | 191 | 12 | 966 | 324 | 281 | 26 | 108 | 119 |
| v/c Ratio | 0.64 | 0.39 | 0.17 | 0.08 | 0.60 | 0.57 | 0.47 | 0.11 | 0.27 | 0.27 |
| Control Delay | 57.9 | 20.7 | 3.2 | 56.7 | 32.7 | 47.9 | 36.2 | 51.0 | 40.9 | 6.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.9 | 20.7 | 3.2 | 56.7 | 32.7 | 47.9 | 36.2 | 51.0 | 40.9 | 6.9 |
| Queue Length 50th (ft) | 107 | 135 | 10 | 8 | 200 | 107 | 166 | 16 | 61 | 0 |
| Queue Length 95th (ft) | 216 | 246 | 46 | 33 | 310 | 191 | 310 | 53 | 141 | 41 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 555 | 3885 | 1305 | 190 | 2811 | 1042 | 918 | 260 | 638 | 631 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.24 | 0.15 | 0.06 | 0.34 | 0.31 | 0.31 | 0.10 | 0.17 | 0.19 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 157 | 883 | 181 | 11 | 848 | 69 | 308 | 239 | 28 | 25 | 103 | 113 |
| Future Volume (veh/h) | 157 | 883 | 181 | 11 | 848 | 69 | 308 | 239 | 28 | 25 | 103 | 113 |
| 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 | 165 | 929 | 191 | 12 | 893 | 73 | 324 | 252 | 0 | 26 | 108 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 201 | 2296 | 937 | 46 | 1745 | 142 | 534 | 509 | | 136 | 341 | |
| Arrive On Green | 0.11 | 0.45 | 0.44 | 0.03 | 0.36 | 0.34 | 0.15 | 0.27 | 0.00 | 0.08 | 0.18 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4812 | 392 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 165 | 929 | 191 | 12 | 631 | 335 | 324 | 252 | 0 | 26 | 108 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1800 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 8.3 | 11.2 | 5.1 | 0.6 | 13.2 | 13.4 | 8.0 | 10.3 | 0.0 | 1.2 | 4.6 | 0.0 |
| Cycle Q Clear(g_c), s | 8.3 | 11.2 | 5.1 | 0.6 | 13.2 | 13.4 | 8.0 | 10.3 | 0.0 | 1.2 | 4.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.22 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 201 | 2296 | 937 | 46 | 1234 | 653 | 534 | 509 | | 136 | 341 | |
| V/C Ratio(X) | 0.82 | 0.40 | 0.20 | 0.26 | 0.51 | 0.51 | 0.61 | 0.49 | | 0.19 | 0.32 | |
| Avail Cap(c_a), veh/h | 625 | 4370 | 1581 | 215 | 2129 | 1125 | 1175 | 1047 | | 293 | 718 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 39.5 | 16.9 | 8.7 | 43.5 | 22.7 | 23.0 | 35.9 | 27.9 | 0.0 | 39.4 | 32.4 | 0.0 |
| Incr Delay (d2), s/veh | 3.1 | 0.2 | 0.2 | 1.1 | 0.7 | 1.3 | 0.4 | 1.6 | 0.0 | 0.3 | 1.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.7 | 4.2 | 1.7 | 0.3 | 5.2 | 5.8 | 3.3 | 4.8 | 0.0 | 0.5 | 2.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.7 | 17.1 | 8.9 | 44.6 | 23.4 | 24.3 | 36.4 | 29.5 | 0.0 | 39.7 | 33.5 | 0.0 |
| LnGrp LOS | D | B | A | D | C | C | D | C | | D | C | |
| Approach Vol, veh/h | | 1285 | | | 978 | | | 576 | A | | 134 | A |
| Approach Delay, s/veh | | 19.2 | | | 24.0 | | | 33.3 | | | 34.7 | |
| Approach LOS | | B | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 37.0 | 18.1 | 21.7 | 6.4 | 45.0 | 11.0 | 28.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 32.0 | 54.7 | * 30 | * 33 | 11.0 | 75.7 | * 14 | 48.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.3 | 15.4 | 10.0 | 6.6 | 2.6 | 13.2 | 3.2 | 12.3 | | | | |
| Green Ext Time (p_c), s | 0.2 | 15.4 | 0.6 | 1.0 | 0.0 | 20.7 | 0.0 | 3.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 24.2 |
| HCM 6th LOS | C |

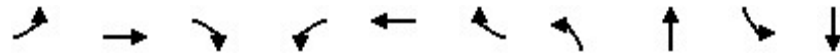
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 33 | 202 | 76 | 106 | 396 | 360 | 124 | 1748 | 204 | 853 |
| v/c Ratio | 0.19 | 0.34 | 0.15 | 0.30 | 0.49 | 0.60 | 0.42 | 0.69 | 0.64 | 0.33 |
| Control Delay | 53.0 | 44.5 | 0.8 | 51.7 | 43.0 | 18.5 | 56.6 | 25.9 | 61.9 | 18.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.0 | 44.5 | 0.8 | 51.7 | 43.0 | 18.5 | 56.6 | 25.9 | 61.9 | 18.9 |
| Queue Length 50th (ft) | 24 | 75 | 0 | 39 | 155 | 110 | 47 | 348 | 79 | 131 |
| Queue Length 95th (ft) | 57 | 94 | 2 | 68 | 175 | 144 | 79 | 530 | 120 | 212 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 171 | 1058 | 494 | 355 | 1029 | 606 | 297 | 2533 | 326 | 2572 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.19 | 0.15 | 0.30 | 0.38 | 0.59 | 0.42 | 0.69 | 0.63 | 0.33 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↗ | ↘↗ | ↑↑ | ↗ | ↘↗ | ↑↑↗ | | ↘↗ | ↑↑↗ | |
| Traffic Volume (veh/h) | 31 | 192 | 72 | 101 | 376 | 342 | 118 | 1619 | 42 | 194 | 793 | 17 |
| Future Volume (veh/h) | 31 | 192 | 72 | 101 | 376 | 342 | 118 | 1619 | 42 | 194 | 793 | 17 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.96 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 33 | 202 | 76 | 106 | 396 | 360 | 124 | 1704 | 44 | 204 | 835 | 18 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 757 | 452 | 297 | 866 | 665 | 295 | 1864 | 48 | 652 | 2423 | 52 |
| Arrive On Green | 0.07 | 0.21 | 0.21 | 0.09 | 0.24 | 0.24 | 0.09 | 0.36 | 0.35 | 0.19 | 0.47 | 0.45 |
| Sat Flow, veh/h | 1781 | 3554 | 1513 | 3456 | 3554 | 1518 | 3456 | 5112 | 132 | 3456 | 5141 | 111 |
| Grp Volume(v), veh/h | 33 | 202 | 76 | 106 | 396 | 360 | 124 | 1134 | 614 | 204 | 553 | 300 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1513 | 1728 | 1777 | 1518 | 1728 | 1702 | 1840 | 1728 | 1702 | 1847 |
| Q Serve(g_s), s | 2.1 | 5.7 | 3.1 | 3.5 | 11.4 | 3.2 | 4.1 | 38.1 | 38.2 | 6.1 | 12.3 | 12.3 |
| Cycle Q Clear(g_c), s | 2.1 | 5.7 | 3.1 | 3.5 | 11.4 | 3.2 | 4.1 | 38.1 | 38.2 | 6.1 | 12.3 | 12.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 118 | 757 | 452 | 297 | 866 | 665 | 295 | 1242 | 671 | 652 | 1604 | 871 |
| V/C Ratio(X) | 0.28 | 0.27 | 0.17 | 0.36 | 0.46 | 0.54 | 0.42 | 0.91 | 0.91 | 0.31 | 0.34 | 0.35 |
| Avail Cap(c_a), veh/h | 172 | 1063 | 582 | 305 | 1034 | 737 | 299 | 1308 | 707 | 652 | 1604 | 871 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 |
| Uniform Delay (d), s/veh | 53.3 | 39.4 | 16.2 | 51.7 | 38.6 | 12.1 | 52.1 | 36.3 | 36.4 | 42.0 | 20.0 | 20.1 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.1 | 0.3 | 0.1 | 0.3 | 0.4 | 11.8 | 19.1 | 0.1 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 2.5 | 1.3 | 1.5 | 5.0 | 4.7 | 1.8 | 17.6 | 20.4 | 2.6 | 5.0 | 5.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.8 | 39.5 | 16.3 | 52.0 | 38.8 | 12.3 | 52.4 | 48.1 | 55.5 | 42.1 | 20.5 | 21.0 |
| LnGrp LOS | D | D | B | D | D | B | D | D | E | D | C | C |
| Approach Vol, veh/h | | 311 | | | 862 | | | 1872 | | | 1057 | |
| Approach Delay, s/veh | | 35.3 | | | 29.3 | | | 50.8 | | | 24.8 | |
| Approach LOS | | D | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 60.6 | 15.6 | 29.6 | 27.0 | 47.8 | 11.9 | 33.2 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | * 45 | * 10 | * 34 | 9.8 | * 44 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.1 | 14.3 | 5.5 | 7.7 | 8.1 | 40.2 | 4.1 | 13.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.5 | 0.0 | 0.3 | 0.0 | 1.8 | 0.0 | 0.7 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.4 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

11/24/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 381 | 329 | 69 | 1738 | 206 | 35 | 545 | 112 |
| v/c Ratio | 0.92 | 0.80 | 0.14 | 0.76 | 0.20 | 0.45 | 0.24 | 0.11 |
| Control Delay | 69.1 | 53.7 | 3.7 | 12.1 | 2.4 | 36.4 | 9.9 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.1 | 53.7 | 3.7 | 12.1 | 2.4 | 36.4 | 9.9 | 2.5 |
| Queue Length 50th (ft) | 273 | 225 | 6 | 85 | 4 | 13 | 92 | 3 |
| Queue Length 95th (ft) | #433 | 333 | m4 | 630 | 0 | #68 | 126 | 25 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 460 | 457 | 508 | 2274 | 1038 | 77 | 2274 | 1053 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.83 | 0.72 | 0.14 | 0.76 | 0.20 | 0.45 | 0.24 | 0.11 |





















Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/24/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 72 | 232 | 58 | 61 | 209 | 43 | 66 | 1651 | 196 | 33 | 518 | 106 |
| Future Volume (veh/h) | 72 | 232 | 58 | 61 | 209 | 43 | 66 | 1651 | 196 | 33 | 518 | 106 |
| 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 | 76 | 244 | 61 | 64 | 220 | 45 | 69 | 1738 | 206 | 35 | 545 | 112 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 103 | 285 | 67 | 95 | 291 | 55 | 500 | 2249 | 1003 | 124 | 2249 | 1003 |
| Arrive On Green | 0.30 | 0.30 | 0.29 | 0.30 | 0.30 | 0.29 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| Sat Flow, veh/h | 224 | 949 | 224 | 196 | 967 | 184 | 777 | 3554 | 1585 | 227 | 3554 | 1585 |
| Grp Volume(v), veh/h | 381 | 0 | 0 | 329 | 0 | 0 | 69 | 1738 | 206 | 35 | 545 | 112 |
| Grp Sat Flow(s),veh/h/ln | 1397 | 0 | 0 | 1347 | 0 | 0 | 777 | 1777 | 1585 | 227 | 1777 | 1585 |
| Q Serve(g_s), s | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 42.2 | 6.6 | 15.7 | 8.0 | 3.3 |
| Cycle Q Clear(g_c), s | 32.3 | 0.0 | 0.0 | 27.3 | 0.0 | 0.0 | 13.1 | 42.2 | 6.6 | 57.9 | 8.0 | 3.3 |
| Prop In Lane | 0.20 | | 0.16 | 0.19 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 456 | 0 | 0 | 441 | 0 | 0 | 500 | 2249 | 1003 | 124 | 2249 | 1003 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.00 | 0.75 | 0.00 | 0.00 | 0.14 | 0.77 | 0.21 | 0.28 | 0.24 | 0.11 |
| Avail Cap(c_a), veh/h | 495 | 0 | 0 | 480 | 0 | 0 | 500 | 2249 | 1003 | 124 | 2249 | 1003 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 40.4 | 0.0 | 0.0 | 37.9 | 0.0 | 0.0 | 12.4 | 15.8 | 9.3 | 36.6 | 9.6 | 8.7 |
| Incr Delay (d2), s/veh | 10.2 | 0.0 | 0.0 | 4.9 | 0.0 | 0.0 | 0.6 | 2.7 | 0.5 | 2.6 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.2 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 0.9 | 16.0 | 2.2 | 0.9 | 2.9 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.6 | 0.0 | 0.0 | 42.7 | 0.0 | 0.0 | 13.0 | 18.5 | 9.8 | 39.2 | 9.7 | 8.8 |
| LnGrp LOS | D | A | A | D | A | A | B | B | A | D | A | A |
| Approach Vol, veh/h | | 381 | | | 329 | | | 2013 | | | 692 | |
| Approach Delay, s/veh | | 50.6 | | | 42.7 | | | 17.4 | | | 11.0 | |
| Approach LOS | | D | | | D | | | B | | | B | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 79.9 | | 40.1 | | 79.9 | | 40.1 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 71.3 | | * 38 | | 71.3 | | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | | 44.2 | | 34.3 | | 59.9 | | 29.3 | | | | |
| Green Ext Time (p_c), s | | 23.8 | | 0.6 | | 5.6 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 22.2 | | | | | | | | |
| HCM 6th LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Future Buildout Year (2045) PM

Queues

1: Culver Blvd & Sepulveda Blvd

11/21/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 263 | 1363 | 99 | 262 | 1473 | 137 | 856 | 196 | 60 | 1249 | 306 |
| v/c Ratio | 0.78 | 1.10 | 0.15 | 0.80 | 0.84 | 0.40 | 0.70 | 0.30 | 0.21 | 1.09 | 0.51 |
| Control Delay | 69.5 | 96.1 | 0.5 | 72.2 | 41.5 | 54.4 | 38.3 | 7.4 | 35.0 | 95.1 | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.5 | 96.1 | 0.5 | 72.2 | 41.5 | 54.4 | 38.3 | 7.4 | 35.0 | 95.1 | 18.0 |
| Queue Length 50th (ft) | 104 | ~632 | 0 | 104 | 381 | 52 | 311 | 12 | 33 | ~575 | 85 |
| Queue Length 95th (ft) | #165 | #770 | 0 | #169 | 445 | 85 | 387 | 66 | 66 | #712 | 174 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 337 | 1235 | 659 | 326 | 1746 | 343 | 1235 | 646 | 286 | 1141 | 600 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.78 | 1.10 | 0.15 | 0.80 | 0.84 | 0.40 | 0.69 | 0.30 | 0.21 | 1.09 | 0.51 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/21/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 250 | 1295 | 94 | 249 | 1321 | 78 | 130 | 813 | 186 | 57 | 1187 | 291 |
| Future Volume (veh/h) | 250 | 1295 | 94 | 249 | 1321 | 78 | 130 | 813 | 186 | 57 | 1187 | 291 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 0.99 | | 0.96 |
| 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 | 263 | 1363 | 99 | 262 | 1391 | 82 | 137 | 856 | 196 | 60 | 1249 | 306 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 329 | 1241 | 538 | 1548 | 3515 | 207 | 342 | 1075 | 460 | 281 | 1146 | 491 |
| Arrive On Green | 0.10 | 0.35 | 0.35 | 0.45 | 0.71 | 0.70 | 0.10 | 0.30 | 0.30 | 0.11 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1541 | 3456 | 4924 | 290 | 3456 | 3554 | 1519 | 1781 | 3554 | 1524 |
| Grp Volume(v), veh/h | 263 | 1363 | 99 | 262 | 962 | 511 | 137 | 856 | 196 | 60 | 1249 | 306 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1541 | 1728 | 1702 | 1811 | 1728 | 1777 | 1519 | 1781 | 1777 | 1524 |
| Q Serve(g_s), s | 8.9 | 41.9 | 6.7 | 5.4 | 13.5 | 13.6 | 4.5 | 26.6 | 12.4 | 0.0 | 38.7 | 20.4 |
| Cycle Q Clear(g_c), s | 8.9 | 41.9 | 6.7 | 5.4 | 13.5 | 13.6 | 4.5 | 26.6 | 12.4 | 0.0 | 38.7 | 20.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 329 | 1241 | 538 | 1548 | 2429 | 1292 | 342 | 1075 | 460 | 281 | 1146 | 491 |
| V/C Ratio(X) | 0.80 | 1.10 | 0.18 | 0.17 | 0.40 | 0.40 | 0.40 | 0.80 | 0.43 | 0.21 | 1.09 | 0.62 |
| Avail Cap(c_a), veh/h | 340 | 1241 | 538 | 1548 | 2429 | 1292 | 346 | 1146 | 490 | 281 | 1146 | 491 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.2 | 39.1 | 43.0 | 19.8 | 6.9 | 6.9 | 50.7 | 38.4 | 33.5 | 46.4 | 40.7 | 34.5 |
| Incr Delay (d2), s/veh | 14.2 | 56.9 | 0.8 | 0.0 | 0.5 | 0.9 | 0.3 | 4.5 | 1.3 | 0.1 | 54.5 | 3.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 27.7 | 2.7 | 2.2 | 4.6 | 5.1 | 2.0 | 12.1 | 4.7 | 1.6 | 25.3 | 8.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 67.4 | 96.0 | 43.8 | 19.8 | 7.3 | 7.8 | 51.0 | 43.0 | 34.8 | 46.5 | 95.2 | 38.0 |
| LnGrp LOS | E | F | D | B | A | A | D | D | C | D | F | D |
| Approach Vol, veh/h | | 1725 | | | 1735 | | | 1189 | | | 1615 | |
| Approach Delay, s/veh | | 88.6 | | | 9.4 | | | 42.6 | | | 82.5 | |
| Approach LOS | | F | | | A | | | D | | | F | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 90.9 | 18.3 | 40.3 | 60.5 | 45.9 | 15.9 | 42.7 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.4 | * 40 | * 11 | * 37 | * 11 | * 40 | 11.0 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.9 | 15.6 | 2.0 | 28.6 | 7.4 | 43.9 | 6.5 | 40.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 17.8 | 0.0 | 5.7 | 0.2 | 0.0 | 0.1 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 56.4 | | | | | | | | | |
| HCM 6th LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/21/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 175 | 918 | 328 | 57 | 717 | 695 | 365 | 1119 | 435 | 722 | 222 |
| v/c Ratio | 0.98 | 0.87 | 0.42 | 0.35 | 0.77 | 0.95 | 0.74 | 0.95 | 0.76 | 0.57 | 0.32 |
| Control Delay | 115.9 | 50.8 | 11.0 | 57.4 | 46.9 | 44.0 | 36.7 | 39.7 | 57.3 | 34.2 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 115.9 | 50.8 | 11.0 | 57.4 | 46.9 | 44.0 | 36.7 | 39.7 | 57.3 | 34.2 | 5.1 |
| Queue Length 50th (ft) | 137 | 362 | 70 | 42 | 266 | 291 | 132 | 465 | 167 | 242 | 0 |
| Queue Length 95th (ft) | #282 | #490 | 137 | 86 | 338 | #602 | m148 | m#606 | 225 | 314 | 54 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 179 | 1053 | 809 | 169 | 967 | 732 | 563 | 1177 | 572 | 1263 | 694 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.98 | 0.87 | 0.41 | 0.34 | 0.74 | 0.95 | 0.65 | 0.95 | 0.76 | 0.57 | 0.32 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Jefferson Blvd & Overland Ave

11/21/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 166 | 872 | 312 | 54 | 681 | 660 | 347 | 1014 | 49 | 413 | 686 | 211 |
| Future Volume (veh/h) | 166 | 872 | 312 | 54 | 681 | 660 | 347 | 1014 | 49 | 413 | 686 | 211 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 175 | 918 | 328 | 57 | 717 | 695 | 365 | 1067 | 0 | 435 | 722 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 181 | 1038 | 643 | 139 | 954 | 675 | 448 | 1153 | | 578 | 1304 | |
| Arrive On Green | 0.10 | 0.29 | 0.28 | 0.08 | 0.27 | 0.26 | 0.13 | 0.32 | 0.00 | 0.17 | 0.37 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1535 | 1781 | 3554 | 1553 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 175 | 918 | 328 | 57 | 717 | 695 | 365 | 1067 | 0 | 435 | 722 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1535 | 1781 | 1777 | 1553 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 11.7 | 29.6 | 19.1 | 3.7 | 22.2 | 22.7 | 12.3 | 34.8 | 0.0 | 14.4 | 19.4 | 0.0 |
| Cycle Q Clear(g_c), s | 11.7 | 29.6 | 19.1 | 3.7 | 22.2 | 22.7 | 12.3 | 34.8 | 0.0 | 14.4 | 19.4 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 181 | 1038 | 643 | 139 | 954 | 675 | 448 | 1153 | | 578 | 1304 | |
| V/C Ratio(X) | 0.97 | 0.88 | 0.51 | 0.41 | 0.75 | 1.03 | 0.81 | 0.93 | | 0.75 | 0.55 | |
| Avail Cap(c_a), veh/h | 181 | 1038 | 643 | 171 | 971 | 683 | 567 | 1155 | | 578 | 1304 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.7 | 40.5 | 26.2 | 52.7 | 40.2 | 17.5 | 50.8 | 39.1 | 0.0 | 47.6 | 30.2 | 0.0 |
| Incr Delay (d2), s/veh | 56.5 | 9.8 | 1.4 | 0.7 | 4.0 | 42.3 | 5.7 | 13.7 | 0.0 | 5.0 | 1.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.1 | 14.2 | 7.2 | 1.7 | 10.2 | 14.3 | 5.7 | 17.2 | 0.0 | 6.6 | 8.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 110.2 | 50.3 | 27.5 | 53.4 | 44.2 | 59.8 | 56.5 | 52.9 | 0.0 | 52.6 | 31.9 | 0.0 |
| LnGrp LOS | F | D | C | D | D | F | E | D | | D | C | |
| Approach Vol, veh/h | | 1421 | | | 1469 | | | 1432 | A | | 1157 | A |
| Approach Delay, s/veh | | 52.4 | | | 51.9 | | | 53.8 | | | 39.7 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 24.7 | 42.9 | 13.4 | 39.1 | 19.6 | 48.0 | 16.2 | 36.2 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 4.0 | 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 18.7 | * 37 | 11.5 | 31.7 | 18.8 | * 37 | 12.2 | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 16.4 | 36.8 | 5.7 | 31.6 | 14.3 | 21.4 | 13.7 | 24.7 | | | | |
| Green Ext Time (p_c), s | 0.3 | 0.3 | 0.0 | 0.1 | 0.3 | 7.4 | 0.0 | 5.2 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 50.0 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 4 | 3 | 62.5% | 21.4 | 32.0 | C |
| | Through | 902 | 770 | 85.4% | 14.0 | 5.5 | B |
| | Right Turn | 75 | 68 | 90.9% | 6.2 | 3.6 | A |
| | Subtotal | 981 | 841 | 85.7% | 13.5 | 5.3 | B |
| SB | Left Turn | 266 | 222 | 83.3% | 375.3 | 69.2 | F |
| | Through | 1,314 | 1,052 | 80.1% | 398.8 | 75.4 | F |
| | Right Turn | 4 | 3 | 75.0% | 368.1 | 89.4 | F |
| | Subtotal | 1,584 | 1,277 | 80.6% | 395.1 | 74.3 | F |
| EB | Left Turn | | | | | | |
| | Through | 6 | 4 | 65.0% | 47.5 | 35.4 | D |
| | Right Turn | 1 | 1 | 80.0% | 9.1 | 26.8 | A |
| | Subtotal | 7 | 5 | 67.1% | 53.2 | 33.6 | D |
| WB | Left Turn | 32 | 29 | 90.0% | 63.4 | 16.4 | E |
| | Through | 3 | 2 | 73.3% | 26.3 | 30.0 | C |
| | Right Turn | 262 | 213 | 81.2% | 7.4 | 1.0 | A |
| | Subtotal | 297 | 244 | 82.1% | 14.9 | 3.0 | B |
| Total | | 2,869 | 2,366 | 82.5% | 214.8 | 20.3 | F |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 35 | 28 | 79.1% | 15.1 | 3.4 | B |
| | Through | 1,315 | 1,118 | 85.0% | 12.6 | 2.7 | B |
| | Right Turn | 75 | 60 | 80.1% | 10.4 | 4.7 | B |
| | Subtotal | 1,425 | 1,206 | 84.6% | 12.6 | 2.6 | B |
| SB | Left Turn | 88 | 73 | 82.8% | 152.2 | 57.4 | F |
| | Through | 894 | 717 | 80.2% | 184.4 | 53.3 | F |
| | Right Turn | 210 | 168 | 80.0% | 100.1 | 37.2 | F |
| | Subtotal | 1,192 | 958 | 80.4% | 169.2 | 50.3 | F |
| EB | Left Turn | 216 | 186 | 86.1% | 45.0 | 17.7 | D |
| | Through | 109 | 96 | 87.9% | 35.6 | 11.0 | D |
| | Right Turn | 22 | 18 | 80.0% | 17.4 | 15.6 | B |
| | Subtotal | 347 | 299 | 86.3% | 40.9 | 14.4 | D |
| WB | Left Turn | 35 | 35 | 100.6% | 54.0 | 26.8 | D |
| | Through | 52 | 48 | 92.5% | 47.6 | 13.2 | D |
| | Right Turn | 1 | 2 | 160.0% | 23.0 | 32.8 | C |
| | Subtotal | 88 | 85 | 96.5% | 53.6 | 19.0 | D |
| Total | | 3,052 | 2,548 | 83.5% | 70.0 | 13.0 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 28 | 21 | 76.1% | 191.5 | 95.0 | F |
| | Through | 949 | 816 | 86.0% | 1.9 | 1.6 | A |
| | Right Turn | 2 | 2 | 105.0% | 0.1 | 0.2 | A |
| | Subtotal | 979 | 839 | 85.7% | 8.6 | 3.6 | A |
| SB | Left Turn | 4 | 3 | 70.0% | 27.9 | 44.9 | D |
| | Through | 1,266 | 1,000 | 79.0% | 84.2 | 12.8 | F |
| | Right Turn | 77 | 63 | 81.3% | 64.9 | 15.4 | F |
| | Subtotal | 1,347 | 1,066 | 79.1% | 83.1 | 12.7 | F |
| EB | Left Turn | 17 | 11 | 65.9% | 354.1 | 155.2 | F |
| | Through | | | | | | |
| | Right Turn | 11 | 9 | 77.3% | 194.0 | 157.0 | F |
| | Subtotal | 28 | 20 | 70.4% | 319.4 | 176.8 | F |
| WB | Left Turn | 1 | 0 | 10.0% | 0.0 | 0.0 | A |
| | Through | 1 | 1 | 80.0% | 53.5 | 98.8 | F |
| | Right Turn | 15 | 15 | 96.7% | 22.1 | 15.7 | C |
| | Subtotal | 17 | 15 | 90.6% | 33.4 | 33.3 | D |
| Total | | 2,371 | 1,940 | 81.8% | 51.9 | 6.2 | F |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 937 | 806 | 86.0% | 5.3 | 4.2 | A |
| | Right Turn | 1,425 | 1,209 | 84.9% | 3.8 | 0.3 | A |
| | Subtotal | 2,362 | 2,015 | 85.3% | 4.4 | 1.6 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,292 | 963 | 74.5% | 156.1 | 17.6 | F |
| | Right Turn | 15 | 13 | 89.3% | 160.4 | 36.0 | F |
| | Subtotal | 1,307 | 976 | 74.7% | 156.1 | 17.7 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 931 | 723 | 77.6% | 154.2 | 20.9 | F |
| | Through | 8 | 7 | 90.0% | 160.0 | 89.0 | F |
| | Right Turn | 12 | 10 | 79.2% | 125.6 | 53.3 | F |
| | Subtotal | 951 | 739 | 77.7% | 154.3 | 21.2 | F |
| Total | | 4,620 | 3,731 | 80.8% | 75.1 | 6.8 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Base
PM Peak Hour

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 99 | 86 | 87.2% | 98.1 | 20.2 | F |
| | Through | 2,057 | 1,736 | 84.4% | 92.4 | 16.6 | F |
| | Right Turn | 64 | 56 | 86.9% | 96.1 | 14.1 | F |
| | Subtotal | 2,220 | 1,878 | 84.6% | 92.8 | 16.6 | F |
| SB | Left Turn | 136 | 104 | 76.4% | 53.0 | 8.4 | D |
| | Through | 1,920 | 1,452 | 75.6% | 39.2 | 3.5 | D |
| | Right Turn | 167 | 128 | 76.5% | 30.7 | 5.0 | C |
| | Subtotal | 2,223 | 1,684 | 75.8% | 39.4 | 3.2 | D |
| EB | Left Turn | 190 | 166 | 87.1% | 218.3 | 43.7 | F |
| | Through | 242 | 216 | 89.1% | 197.1 | 43.8 | F |
| | Right Turn | 266 | 241 | 90.8% | 179.4 | 39.4 | F |
| | Subtotal | 698 | 623 | 89.2% | 195.6 | 41.4 | F |
| WB | Left Turn | 66 | 65 | 98.0% | 88.8 | 23.5 | F |
| | Through | 165 | 171 | 103.6% | 44.3 | 12.3 | D |
| | Right Turn | 115 | 116 | 101.0% | 10.5 | 3.0 | B |
| | Subtotal | 346 | 352 | 101.7% | 44.0 | 12.0 | D |
| Total | | 5,487 | 4,536 | 82.7% | 83.0 | 9.3 | F |

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length
Intersection 3

Sepulveda Bl/Machado Rd

11111 Jefferson Project
Future Base
PM Peak Hour
Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 1 | 25 | 3 | 25 | 8 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 2 | 25 | 17 | 25 | 47 | 0% | 0% |
| | Through | 400 | 125 | 20 | 250 | 41 | 300 | 51 | 5% | 0% |
| | Through/Right | 400 | 125 | 16 | 275 | 30 | 300 | 50 | 0% | 0% |
| SB | Left Turn | 225 | 150 | 24 | 300 | 23 | 250 | 27 | 0% | 0% |
| | Through | 375 | 375 | 23 | 575 | 23 | 450 | 9 | 63% | 56% |
| | Right Turn | 50 | 25 | 2 | 25 | 9 | 50 | 11 | 0% | 0% |
| WB | Left/Through | 125 | 50 | 9 | 75 | 22 | 100 | 26 | 4% | 0% |
| | Right Turn | 600 | 25 | 5 | 50 | 19 | 75 | 50 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 200 | 125 | 14 | 225 | 17 | 225 | 1 | 9% | 0% |
| | Through | 600 | 100 | 31 | 300 | 86 | 425 | 136 | 0% | 0% |
| | Right Turn | 600 | 25 | 4 | 50 | 35 | 75 | 108 | 0% | 0% |
| NB | Left Turn | 225 | 25 | 5 | 75 | 25 | 100 | 81 | 0% | 0% |
| | Through | 475 | 100 | 21 | 225 | 49 | 325 | 51 | 1% | 0% |
| | Through/Right | 475 | 100 | 23 | 250 | 58 | 350 | 86 | 0% | 0% |
| SB | Left Turn | 200 | 100 | 24 | 225 | 44 | 225 | 0 | 0% | 0% |
| | Through | 750 | 475 | 109 | 950 | 190 | 825 | 21 | 45% | 21% |
| | Right Turn | 375 | 200 | 60 | 475 | 97 | 400 | 0 | 0% | 0% |
| WB | Left Turn | 150 | 50 | 6 | 100 | 17 | 100 | 25 | 0% | 0% |
| | Through/Right | 150 | 50 | 5 | 100 | 14 | 125 | 23 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 100 | 43 | 175 | 89 | 225 | 95 | 55% | 0% |
| | Right Turn | 75 | 25 | 6 | 75 | 13 | 75 | 1 | 2% | 0% |
| NB | Left Turn | 125 | 50 | 10 | 100 | 20 | 125 | 16 | 9% | 6% |
| | Through | 125 | 50 | 25 | 150 | 73 | 175 | 63 | 11% | 10% |
| | Through/Right | 125 | 25 | 1 | 25 | 6 | 25 | 17 | 0% | 0% |
| SB | Left Turn | 125 | 25 | 2 | 50 | 17 | 100 | 46 | 0% | 0% |
| | Through | 400 | 400 | 40 | 600 | 54 | 500 | 15 | 56% | 47% |
| | Right Turn | 125 | 50 | 19 | 150 | 29 | 150 | 0 | 0% | 0% |
| WB | Shared | 125 | 25 | 7 | 75 | 21 | 100 | 36 | 0% | 2% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 8 | 100 | 36 | 125 | 81 | 0% | 0% |
| | Right Turn | 225 | 25 | 4 | 25 | 28 | 75 | 74 | 0% | 0% |
| SB | Through | 175 | 275 | 2 | 275 | 5 | 300 | 9 | 0% | 85% |
| | Through/Right | 175 | 250 | 4 | 275 | 8 | 300 | 9 | 0% | 80% |
| WB | Left Turn | 475 | 425 | 34 | 575 | 27 | 525 | 11 | 44% | 24% |
| | Shared | 300 | 300 | 13 | 350 | 18 | 325 | 0 | 31% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 8 | 250 | 9 | 200 | 0 | 18% | 8% |
| | Through | 200 | 275 | 2 | 300 | 6 | 300 | 7 | 57% | 64% |
| | Right Turn | 50 | 75 | 3 | 100 | 5 | 75 | 1 | 26% | 0% |
| NB | Left Turn | 275 | 100 | 10 | 225 | 23 | 250 | 1 | 0% | 0% |
| | Through | 250 | 350 | 26 | 375 | 28 | 375 | 9 | 49% | 50% |
| | Through/Right | 250 | 250 | 1 | 275 | 5 | 250 | 0 | 26% | 12% |
| SB | Left Turn | 175 | 125 | 8 | 200 | 12 | 175 | 0 | 3% | 0% |
| | Through | 225 | 275 | 11 | 325 | 9 | 325 | 14 | 43% | 36% |
| | Through/Right | 225 | 275 | 10 | 325 | 11 | 325 | 17 | 0% | 30% |
| WB | Left Turn | 100 | 75 | 6 | 150 | 6 | 125 | 0 | 15% | 0% |
| | Through | 325 | 150 | 20 | 275 | 50 | 325 | 57 | 21% | 2% |
| | Through/Right | 325 | 75 | 5 | 100 | 13 | 150 | 45 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

11/21/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|-------|------|------|
| Lane Group Flow (vph) | 561 | 583 | 240 | 588 | 65 | 1595 | 124 | 1846 | 527 |
| v/c Ratio | 0.74 | 0.74 | 0.42 | 0.68 | 0.68 | 0.89 | 0.82 | 0.93 | 0.47 |
| Control Delay | 65.8 | 65.4 | 65.0 | 61.3 | 113.4 | 57.8 | 113.4 | 58.4 | 10.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.8 | 65.4 | 65.0 | 61.3 | 113.4 | 94.8 | 113.4 | 58.4 | 10.8 |
| Queue Length 50th (ft) | 327 | 339 | 126 | 202 | 72 | 607 | 138 | 718 | 168 |
| Queue Length 95th (ft) | 468 | 481 | 170 | 246 | #177 | #837 | #302 | #994 | 342 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 816 | 844 | 941 | 1372 | 95 | 1805 | 151 | 1988 | 1153 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 324 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.69 | 0.69 | 0.26 | 0.43 | 0.68 | 1.08 | 0.82 | 0.93 | 0.46 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

11/21/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 666 | 387 | 34 | 228 | 351 | 208 | 62 | 1360 | 155 | 118 | 1754 | 501 |
| Future Volume (veh/h) | 666 | 387 | 34 | 228 | 351 | 208 | 62 | 1360 | 155 | 118 | 1754 | 501 |
| 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 | 636 | 497 | 0 | 240 | 369 | 0 | 65 | 1432 | 163 | 124 | 1846 | 527 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 801 | 841 | | 380 | 561 | | 106 | 1737 | 198 | 213 | 2250 | 1055 |
| Arrive On Green | 0.22 | 0.22 | 0.00 | 0.11 | 0.11 | 0.00 | 0.06 | 0.37 | 0.37 | 0.12 | 0.44 | 0.44 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4650 | 529 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 636 | 497 | 0 | 240 | 369 | 0 | 65 | 1048 | 547 | 124 | 1846 | 527 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1775 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 23.4 | 16.5 | 0.0 | 9.2 | 9.6 | 0.0 | 4.9 | 38.7 | 38.7 | 9.1 | 43.9 | 23.1 |
| Cycle Q Clear(g_c), s | 23.4 | 16.5 | 0.0 | 9.2 | 9.6 | 0.0 | 4.9 | 38.7 | 38.7 | 9.1 | 43.9 | 23.1 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.30 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 801 | 841 | | 380 | 561 | | 106 | 1272 | 663 | 213 | 2250 | 1055 |
| V/C Ratio(X) | 0.79 | 0.59 | | 0.63 | 0.66 | | 0.61 | 0.82 | 0.82 | 0.58 | 0.82 | 0.50 |
| Avail Cap(c_a), veh/h | 1156 | 1214 | | 1146 | 1693 | | 116 | 1490 | 777 | 213 | 2433 | 1112 |
| 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(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.7 | 48.1 | 0.0 | 59.1 | 59.2 | 0.0 | 63.7 | 39.3 | 39.3 | 57.8 | 34.0 | 11.6 |
| Incr Delay (d2), s/veh | 2.5 | 0.7 | 0.0 | 1.7 | 1.3 | 0.0 | 8.0 | 3.4 | 6.3 | 4.0 | 2.2 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.7 | 7.8 | 0.0 | 4.1 | 4.2 | 0.0 | 2.5 | 16.5 | 17.8 | 4.3 | 18.2 | 14.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.2 | 48.7 | 0.0 | 60.8 | 60.6 | 0.0 | 71.7 | 42.7 | 45.7 | 61.8 | 36.2 | 12.0 |
| LnGrp LOS | D | D | | E | E | | E | D | D | E | D | B |
| Approach Vol, veh/h | | 1133 | A | | 609 | A | | 1660 | | | 2497 | |
| Approach Delay, s/veh | | 51.2 | | | 60.7 | | | 44.8 | | | 32.4 | |
| Approach LOS | | D | | | E | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.7 | 67.3 | | 37.5 | 22.8 | 58.2 | | 20.2 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 66.1 | | 45.0 | * 14 | * 61 | | 46.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 45.9 | | 25.4 | 11.1 | 40.7 | | 11.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 15.2 | | 5.8 | 0.1 | 11.1 | | 3.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 42.4 |
| HCM 6th LOS | D |

Notes

User approved volume balancing among the lanes for turning movement.

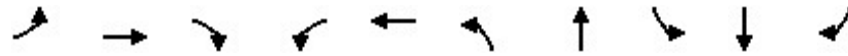
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

11/21/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 114 | 1023 | 304 | 54 | 961 | 406 | 135 | 35 | 316 | 304 |
| v/c Ratio | 0.59 | 0.55 | 0.31 | 0.36 | 0.61 | 0.67 | 0.19 | 0.17 | 0.64 | 0.57 |
| Control Delay | 69.5 | 34.4 | 8.3 | 68.2 | 39.2 | 55.2 | 27.4 | 61.4 | 48.3 | 23.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.5 | 34.4 | 8.3 | 68.2 | 39.2 | 55.2 | 27.4 | 61.4 | 48.3 | 23.7 |
| Queue Length 50th (ft) | 83 | 230 | 52 | 39 | 224 | 148 | 70 | 24 | 211 | 91 |
| Queue Length 95th (ft) | 190 | 384 | 139 | 108 | 383 | 275 | 146 | 77 | 409 | 236 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 340 | 2621 | 1136 | 216 | 2253 | 989 | 1064 | 231 | 797 | 768 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.39 | 0.27 | 0.25 | 0.43 | 0.41 | 0.13 | 0.15 | 0.40 | 0.40 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 9: Slauson Ave & Jefferson BI

11/21/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 108 | 972 | 289 | 51 | 879 | 34 | 386 | 106 | 22 | 33 | 300 | 289 |
| Future Volume (veh/h) | 108 | 972 | 289 | 51 | 879 | 34 | 386 | 106 | 22 | 33 | 300 | 289 |
| 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 | 114 | 1023 | 304 | 54 | 925 | 36 | 406 | 112 | 0 | 35 | 316 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 143 | 1999 | 840 | 121 | 1914 | 74 | 517 | 565 | | 153 | 426 | |
| Arrive On Green | 0.08 | 0.39 | 0.38 | 0.07 | 0.38 | 0.36 | 0.15 | 0.30 | 0.00 | 0.09 | 0.23 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5043 | 196 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 114 | 1023 | 304 | 54 | 624 | 337 | 406 | 112 | 0 | 35 | 316 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1835 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 6.6 | 16.0 | 11.7 | 3.1 | 14.6 | 14.7 | 11.9 | 4.7 | 0.0 | 1.9 | 16.5 | 0.0 |
| Cycle Q Clear(g_c), s | 6.6 | 16.0 | 11.7 | 3.1 | 14.6 | 14.7 | 11.9 | 4.7 | 0.0 | 1.9 | 16.5 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 143 | 1999 | 840 | 121 | 1292 | 696 | 517 | 565 | | 153 | 426 | |
| V/C Ratio(X) | 0.80 | 0.51 | 0.36 | 0.45 | 0.48 | 0.48 | 0.78 | 0.20 | | 0.23 | 0.74 | |
| Avail Cap(c_a), veh/h | 373 | 2871 | 1111 | 238 | 1655 | 892 | 1087 | 1194 | | 255 | 873 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 47.4 | 24.3 | 14.4 | 47.0 | 24.7 | 24.9 | 43.0 | 27.2 | 0.0 | 44.7 | 37.6 | 0.0 |
| Incr Delay (d2), s/veh | 3.9 | 0.4 | 0.6 | 1.0 | 0.6 | 1.1 | 1.0 | 0.4 | 0.0 | 0.3 | 5.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.1 | 6.4 | 4.2 | 1.4 | 5.9 | 6.5 | 5.1 | 2.1 | 0.0 | 0.9 | 8.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.3 | 24.7 | 14.9 | 47.9 | 25.3 | 26.0 | 44.0 | 27.5 | 0.0 | 45.0 | 43.0 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1441 | | | 1015 | | | 518 | A | | 351 | A |
| Approach Delay, s/veh | | 24.8 | | | 26.7 | | | 40.4 | | | 43.2 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.4 | 43.8 | 19.7 | 29.0 | 11.1 | 45.1 | 13.0 | 35.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 22.0 | 48.7 | * 32 | * 47 | 14.0 | 56.7 | * 14 | 64.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.6 | 16.7 | 13.9 | 18.5 | 5.1 | 18.0 | 3.9 | 6.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.9 | 0.7 | 3.8 | 0.0 | 20.8 | 0.0 | 1.4 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|------|--|
| HCM 6th Ctrl Delay | | | | | | | | | | | 29.8 | |
| HCM 6th LOS | | | | | | | | | | | C | |

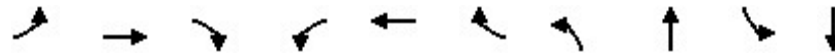
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/21/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 55 | 429 | 276 | 217 | 304 | 272 | 167 | 1462 | 326 | 1730 |
| v/c Ratio | 0.29 | 0.65 | 0.55 | 0.71 | 0.44 | 0.48 | 0.54 | 0.61 | 0.81 | 0.68 |
| Control Delay | 53.7 | 49.3 | 17.0 | 66.5 | 44.9 | 12.9 | 59.3 | 26.0 | 67.7 | 25.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| Total Delay | 53.7 | 49.3 | 17.0 | 66.5 | 44.9 | 12.9 | 59.3 | 26.0 | 67.7 | 26.1 |
| Queue Length 50th (ft) | 40 | 168 | 79 | 85 | 117 | 64 | 64 | 289 | 127 | 342 |
| Queue Length 95th (ft) | 83 | 187 | 110 | #133 | 135 | 92 | 101 | 435 | #187 | 519 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 188 | 1055 | 509 | 308 | 1032 | 583 | 314 | 2380 | 429 | 2543 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.41 | 0.54 | 0.70 | 0.29 | 0.47 | 0.53 | 0.61 | 0.76 | 0.81 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/21/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|-------|-------|------|-------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 52 | 408 | 262 | 206 | 289 | 258 | 159 | 1310 | 79 | 310 | 1619 | 25 |
| Future Volume (veh/h) | 52 | 408 | 262 | 206 | 289 | 258 | 159 | 1310 | 79 | 310 | 1619 | 25 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.93 | 1.00 | | 0.95 | 1.00 | | 0.93 |
| 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 | 55 | 429 | 276 | 217 | 304 | 272 | 167 | 1379 | 83 | 326 | 1704 | 26 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 146 | 930 | 626 | 305 | 914 | 569 | 520 | 1939 | 117 | 420 | 1878 | 29 |
| Arrive On Green | 0.08 | 0.26 | 0.26 | 0.09 | 0.26 | 0.25 | 0.15 | 0.40 | 0.38 | 0.12 | 0.36 | 0.35 |
| Sat Flow, veh/h | 1781 | 3554 | 1504 | 3456 | 3554 | 1477 | 3456 | 4907 | 295 | 3456 | 5174 | 79 |
| Grp Volume(v), veh/h | 55 | 429 | 276 | 217 | 304 | 272 | 167 | 957 | 505 | 326 | 1121 | 609 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1504 | 1728 | 1777 | 1477 | 1728 | 1702 | 1798 | 1728 | 1702 | 1849 |
| Q Serve(g_s), s | 3.5 | 12.2 | 3.0 | 7.3 | 8.3 | 11.2 | 5.2 | 28.4 | 28.4 | 11.0 | 37.5 | 37.6 |
| Cycle Q Clear(g_c), s | 3.5 | 12.2 | 3.0 | 7.3 | 8.3 | 11.2 | 5.2 | 28.4 | 28.4 | 11.0 | 37.5 | 37.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 146 | 930 | 626 | 305 | 914 | 569 | 520 | 1345 | 710 | 420 | 1235 | 671 |
| V/C Ratio(X) | 0.38 | 0.46 | 0.44 | 0.71 | 0.33 | 0.48 | 0.32 | 0.71 | 0.71 | 0.78 | 0.91 | 0.91 |
| Avail Cap(c_a), veh/h | 172 | 1060 | 681 | 311 | 1036 | 620 | 520 | 1345 | 710 | 432 | 1316 | 715 |
| 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(l) | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.37 | 0.37 | 0.37 |
| Uniform Delay (d), s/veh | 52.2 | 37.2 | 11.6 | 53.2 | 36.2 | 13.6 | 45.5 | 30.5 | 30.7 | 51.1 | 36.3 | 36.4 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.2 | 6.2 | 0.1 | 0.2 | 0.1 | 3.2 | 6.0 | 2.9 | 4.7 | 8.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 5.3 | 3.3 | 3.4 | 3.6 | 3.7 | 2.2 | 12.1 | 13.4 | 4.9 | 16.1 | 18.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.7 | 37.3 | 11.8 | 59.4 | 36.3 | 13.8 | 45.6 | 33.8 | 36.6 | 54.1 | 41.0 | 44.5 |
| LnGrp LOS | D | D | B | E | D | B | D | C | D | D | D | D |
| Approach Vol, veh/h | | 760 | | | 793 | | | 1629 | | | 2056 | |
| Approach Delay, s/veh | | 29.2 | | | 34.9 | | | 35.9 | | | 44.1 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 22.4 | 47.5 | 14.6 | 35.4 | 18.6 | 51.4 | 15.1 | 34.9 | | | | |
| Change Period (Y+Rc), s | * 5.8 | * 6 | * 4.6 | * 5.9 | * 5.6 | 5.8 | * 5.9 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | * 9.6 | * 44 | * 10 | * 34 | * 13 | 40.6 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.2 | 39.6 | 9.3 | 14.2 | 13.0 | 30.4 | 5.5 | 13.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | 0.0 | 0.8 | 0.0 | 2.4 | 0.0 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.0 |
| HCM 6th LOS | D |

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

11/21/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 216 | 342 | 47 | 1058 | 136 | 41 | 1540 | 88 |
| v/c Ratio | 0.48 | 0.90 | 0.38 | 0.46 | 0.13 | 0.15 | 0.67 | 0.08 |
| Control Delay | 35.1 | 67.4 | 33.9 | 19.8 | 10.3 | 12.1 | 15.8 | 7.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.1 | 67.4 | 33.9 | 19.8 | 10.3 | 12.1 | 15.8 | 7.1 |
| Queue Length 50th (ft) | 127 | 249 | 32 | 387 | 58 | 11 | 358 | 16 |
| Queue Length 95th (ft) | 181 | 338 | m59 | 463 | 117 | 36 | 542 | 44 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 577 | 482 | 125 | 2312 | 1054 | 267 | 2312 | 1043 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.71 | 0.38 | 0.46 | 0.13 | 0.15 | 0.67 | 0.08 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/21/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | ↗ | ↕ | ↖ | ↗ | ↕ | ↖ |
| Traffic Volume (veh/h) | 32 | 118 | 55 | 101 | 179 | 46 | 45 | 1005 | 129 | 39 | 1463 | 84 |
| Future Volume (veh/h) | 32 | 118 | 55 | 101 | 179 | 46 | 45 | 1005 | 129 | 39 | 1463 | 84 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 34 | 124 | 58 | 106 | 188 | 48 | 47 | 1058 | 136 | 41 | 1540 | 88 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 77 | 261 | 111 | 148 | 224 | 54 | 191 | 2394 | 1068 | 311 | 2394 | 1068 |
| Arrive On Green | 0.26 | 0.26 | 0.25 | 0.26 | 0.26 | 0.25 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| Sat Flow, veh/h | 163 | 1006 | 429 | 417 | 864 | 209 | 309 | 3554 | 1585 | 469 | 3554 | 1585 |
| Grp Volume(v), veh/h | 216 | 0 | 0 | 342 | 0 | 0 | 47 | 1058 | 136 | 41 | 1540 | 88 |
| Grp Sat Flow(s),veh/h/ln | 1598 | 0 | 0 | 1490 | 0 | 0 | 309 | 1777 | 1585 | 469 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 13.9 | 0.0 | 0.0 | 12.4 | 16.6 | 3.7 | 5.3 | 29.9 | 2.3 |
| Cycle Q Clear(g_c), s | 12.9 | 0.0 | 0.0 | 26.8 | 0.0 | 0.0 | 42.3 | 16.6 | 3.7 | 21.9 | 29.9 | 2.3 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 449 | 0 | 0 | 426 | 0 | 0 | 191 | 2394 | 1068 | 311 | 2394 | 1068 |
| V/C Ratio(X) | 0.48 | 0.00 | 0.00 | 0.80 | 0.00 | 0.00 | 0.25 | 0.44 | 0.13 | 0.13 | 0.64 | 0.08 |
| Avail Cap(c_a), veh/h | 610 | 0 | 0 | 580 | 0 | 0 | 191 | 2394 | 1068 | 311 | 2394 | 1068 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.6 | 0.0 | 0.0 | 43.1 | 0.0 | 0.0 | 23.4 | 9.1 | 7.0 | 14.2 | 11.3 | 6.8 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 3.0 | 0.6 | 0.2 | 0.4 | 0.8 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.4 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 1.0 | 5.9 | 1.2 | 0.6 | 10.5 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 37.9 | 0.0 | 0.0 | 47.1 | 0.0 | 0.0 | 26.5 | 9.7 | 7.2 | 14.6 | 12.1 | 6.8 |
| LnGrp LOS | D | A | A | D | A | A | C | A | A | B | B | A |
| Approach Vol, veh/h | | 216 | | | 342 | | | 1241 | | | 1669 | |
| Approach Delay, s/veh | | 37.9 | | | 47.1 | | | 10.1 | | | 11.9 | |
| Approach LOS | | D | | | D | | | B | | | B | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 84.9 | | 35.1 | | 84.9 | | 35.1 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 67.3 | | * 42 | | 67.3 | | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | | 44.3 | | 14.9 | | 31.9 | | 28.8 | | | | |
| Green Ext Time (p_c), s | | 15.0 | | 0.9 | | 26.8 | | 1.2 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.3 |
| HCM 6th LOS | B |

Notes

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

Future Buildout Year Plus Project AM

Queues

1: Culver Blvd & Sepulveda Blvd

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|-------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 293 | 1355 | 80 | 161 | 1357 | 284 | 1342 | 291 | 91 | 554 | 206 |
| v/c Ratio | 0.75 | 1.13 | 0.12 | 0.49 | 0.84 | 0.70 | 1.14 | 0.47 | 0.38 | 0.50 | 0.33 |
| Control Delay | 64.6 | 107.5 | 0.4 | 57.2 | 43.5 | 60.8 | 110.2 | 14.9 | 46.2 | 35.4 | 6.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.6 | 107.5 | 0.4 | 57.2 | 43.5 | 60.8 | 110.2 | 14.9 | 46.2 | 35.4 | 6.6 |
| Queue Length 50th (ft) | 114 | ~641 | 0 | 61 | 354 | 109 | ~637 | 66 | 51 | 184 | 5 |
| Queue Length 95th (ft) | #172 | #780 | 0 | 97 | 416 | 156 | #776 | 149 | 93 | 241 | 61 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 389 | 1197 | 644 | 326 | 1611 | 429 | 1179 | 621 | 238 | 1117 | 616 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 1.13 | 0.12 | 0.49 | 0.84 | 0.66 | 1.14 | 0.47 | 0.38 | 0.50 | 0.33 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/24/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 278 | 1287 | 76 | 153 | 1199 | 90 | 270 | 1275 | 276 | 86 | 526 | 196 |
| Future Volume (veh/h) | 278 | 1287 | 76 | 153 | 1199 | 90 | 270 | 1275 | 276 | 86 | 526 | 196 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| 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 | 293 | 1355 | 80 | 161 | 1262 | 95 | 284 | 1342 | 291 | 91 | 554 | 206 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 363 | 1202 | 519 | 2150 | 4194 | 316 | 367 | 1185 | 508 | 230 | 1179 | 503 |
| Arrive On Green | 0.11 | 0.34 | 0.34 | 0.62 | 0.87 | 0.85 | 0.11 | 0.33 | 0.33 | 0.10 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3456 | 3554 | 1535 | 3456 | 4836 | 364 | 3456 | 3554 | 1524 | 1781 | 3554 | 1515 |
| Grp Volume(v), veh/h | 293 | 1355 | 80 | 161 | 888 | 469 | 284 | 1342 | 291 | 91 | 554 | 206 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1535 | 1728 | 1702 | 1796 | 1728 | 1777 | 1524 | 1781 | 1777 | 1515 |
| Q Serve(g_s), s | 9.9 | 40.6 | 6.6 | 2.2 | 5.6 | 5.7 | 9.6 | 40.0 | 18.9 | 1.6 | 14.8 | 12.6 |
| Cycle Q Clear(g_c), s | 9.9 | 40.6 | 6.6 | 2.2 | 5.6 | 5.7 | 9.6 | 40.0 | 18.9 | 1.6 | 14.8 | 12.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 363 | 1202 | 519 | 2150 | 2952 | 1557 | 367 | 1185 | 508 | 230 | 1179 | 503 |
| V/C Ratio(X) | 0.81 | 1.13 | 0.15 | 0.07 | 0.30 | 0.30 | 0.77 | 1.13 | 0.57 | 0.40 | 0.47 | 0.41 |
| Avail Cap(c_a), veh/h | 392 | 1202 | 519 | 2150 | 2952 | 1557 | 432 | 1185 | 508 | 238 | 1179 | 503 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.5 | 39.7 | 63.6 | 9.0 | 1.4 | 1.5 | 52.2 | 40.0 | 33.0 | 49.3 | 31.7 | 31.0 |
| Incr Delay (d2), s/veh | 13.1 | 68.3 | 0.6 | 0.0 | 0.3 | 0.5 | 5.9 | 70.8 | 2.5 | 0.4 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.0 | 28.8 | 2.7 | 0.8 | 1.0 | 1.2 | 4.5 | 28.8 | 7.3 | 2.5 | 6.5 | 4.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 65.7 | 108.0 | 64.2 | 9.0 | 1.7 | 2.0 | 58.1 | 110.8 | 35.5 | 49.7 | 32.4 | 32.1 |
| LnGrp LOS | E | F | E | A | A | A | E | F | D | D | C | C |
| Approach Vol, veh/h | | 1728 | | | 1518 | | | 1917 | | | 851 | |
| Approach Delay, s/veh | | 98.8 | | | 2.6 | | | 91.5 | | | 34.2 | |
| Approach LOS | | F | | | A | | | F | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 16.6 | 110.0 | 16.6 | 44.0 | 82.0 | 44.6 | 16.7 | 43.8 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | * 6.1 | * 6.1 | * 5.8 | * 5.8 | 5.0 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 13.2 | * 37 | * 11 | * 38 | * 11 | * 39 | 14.0 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.9 | 7.7 | 3.6 | 42.0 | 4.2 | 42.6 | 11.6 | 16.8 | | | | |
| Green Ext Time (p_c), s | 0.3 | 19.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 7.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 63.0 | | | | | | | | |
| HCM 6th LOS | | | | E | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 186 | 614 | 417 | 62 | 994 | 481 | 457 | 920 | 333 | 1013 | 431 |
| v/c Ratio | 0.92 | 0.57 | 0.54 | 0.27 | 0.96 | 0.66 | 0.94 | 0.81 | 0.71 | 0.90 | 0.64 |
| Control Delay | 97.5 | 38.9 | 12.5 | 50.9 | 62.6 | 19.0 | 53.0 | 24.5 | 58.8 | 51.0 | 17.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 97.5 | 38.9 | 12.5 | 50.9 | 62.6 | 19.0 | 53.0 | 24.5 | 58.8 | 51.0 | 17.1 |
| Queue Length 50th (ft) | 144 | 227 | 100 | 43 | 398 | 150 | 177 | 356 | 130 | 394 | 100 |
| Queue Length 95th (ft) | #282 | 268 | 164 | 91 | #537 | 232 | m#214 | m415 | #190 | #517 | 217 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 206 | 1191 | 767 | 231 | 1032 | 725 | 486 | 1166 | 472 | 1126 | 674 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.52 | 0.54 | 0.27 | 0.96 | 0.66 | 0.94 | 0.79 | 0.71 | 0.90 | 0.64 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 2: Jefferson Blvd & Overland Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 177 | 583 | 396 | 59 | 944 | 457 | 434 | 826 | 48 | 316 | 962 | 409 |
| Future Volume (veh/h) | 177 | 583 | 396 | 59 | 944 | 457 | 434 | 826 | 48 | 316 | 962 | 409 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 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 | 186 | 614 | 417 | 62 | 994 | 481 | 457 | 869 | 0 | 333 | 1013 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 208 | 940 | 624 | 230 | 1036 | 678 | 490 | 1081 | | 516 | 1125 | |
| Arrive On Green | 0.12 | 0.26 | 0.26 | 0.13 | 0.29 | 0.29 | 0.14 | 0.30 | 0.00 | 0.15 | 0.32 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1555 | 1781 | 3554 | 1534 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 186 | 614 | 417 | 62 | 994 | 481 | 457 | 869 | 0 | 333 | 1013 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1555 | 1781 | 1777 | 1534 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 12.4 | 18.4 | 15.1 | 3.8 | 33.0 | 7.6 | 15.7 | 27.0 | 0.0 | 10.9 | 32.7 | 0.0 |
| Cycle Q Clear(g_c), s | 12.4 | 18.4 | 15.1 | 3.8 | 33.0 | 7.6 | 15.7 | 27.0 | 0.0 | 10.9 | 32.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 208 | 940 | 624 | 230 | 1036 | 678 | 490 | 1081 | | 516 | 1125 | |
| V/C Ratio(X) | 0.90 | 0.65 | 0.67 | 0.27 | 0.96 | 0.71 | 0.93 | 0.80 | | 0.65 | 0.90 | |
| Avail Cap(c_a), veh/h | 208 | 1111 | 699 | 230 | 1036 | 678 | 490 | 1179 | | 516 | 1125 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.3 | 39.2 | 12.0 | 47.2 | 41.8 | 10.9 | 50.9 | 38.5 | 0.0 | 48.1 | 39.2 | 0.0 |
| Incr Delay (d2), s/veh | 34.5 | 1.9 | 3.2 | 0.2 | 19.1 | 4.3 | 24.8 | 6.4 | 0.0 | 2.2 | 11.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.5 | 8.3 | 5.4 | 1.7 | 17.0 | 6.3 | 8.5 | 12.6 | 0.0 | 4.8 | 15.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 86.7 | 41.1 | 15.2 | 47.4 | 60.9 | 15.2 | 75.7 | 44.8 | 0.0 | 50.2 | 50.7 | 0.0 |
| LnGrp LOS | F | D | B | D | E | B | E | D | | D | D | |
| Approach Vol, veh/h | | 1217 | | | 1537 | | | 1326 | A | | 1346 | A |
| Approach Delay, s/veh | | 39.2 | | | 46.0 | | | 55.5 | | | 50.6 | |
| Approach LOS | | D | | | D | | | E | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 22.5 | 40.5 | 21.3 | 35.7 | 21.0 | 42.0 | 18.0 | 39.0 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 5.8 | * 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 13.9 | * 38 | 11.5 | * 36 | 16.1 | * 36 | 14.0 | 33.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 12.9 | 29.0 | 5.8 | 20.4 | 17.7 | 34.7 | 14.4 | 35.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.7 | 0.0 | 8.7 | 0.0 | 1.1 | 0.0 | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|------|--|
| HCM 6th Ctrl Delay | | | | | | | | | | | 47.9 | |
| HCM 6th LOS | | | | | | | | | | | D | |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
AM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,757 | 1,412 | 80.4% | 7.9 | 3.0 | A |
| | Right Turn | 74 | 59 | 79.6% | 6.1 | 2.5 | A |
| | Subtotal | 1,831 | 1,471 | 80.3% | 7.8 | 3.0 | A |
| SB | Left Turn | 122 | 123 | 100.7% | 61.4 | 14.0 | E |
| | Through | 489 | 502 | 102.6% | 8.0 | 3.7 | A |
| | Right Turn | 6 | 6 | 95.0% | 3.7 | 0.5 | A |
| | Subtotal | 617 | 631 | 102.2% | 18.0 | 4.8 | B |
| EB | Left Turn | 9 | 7 | 72.2% | 41.7 | 26.0 | D |
| | Through | 4 | 3 | 85.0% | 24.3 | 23.9 | C |
| | Right Turn | 7 | 8 | 112.9% | 15.6 | 28.1 | B |
| | Subtotal | 20 | 18 | 89.0% | 37.1 | 23.3 | D |
| WB | Left Turn | 30 | 23 | 77.3% | 58.2 | 22.6 | E |
| | Through | 1 | 2 | 200.0% | 29.4 | 44.3 | C |
| | Right Turn | 345 | 289 | 83.7% | 13.9 | 2.5 | B |
| | Subtotal | 376 | 314 | 83.5% | 17.4 | 3.0 | B |
| Total | | 2,844 | 2,433 | 85.6% | 11.7 | 2.2 | B |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 31 | 24 | 78.1% | 26.5 | 10.7 | C |
| | Through | 1,552 | 1,196 | 77.0% | 14.5 | 4.3 | B |
| | Right Turn | 30 | 21 | 70.0% | 16.1 | 10.7 | B |
| | Subtotal | 1,613 | 1,241 | 76.9% | 14.8 | 4.4 | B |
| SB | Left Turn | 66 | 56 | 85.3% | 45.8 | 14.9 | D |
| | Through | 1,208 | 960 | 79.5% | 75.0 | 18.8 | E |
| | Right Turn | 322 | 254 | 78.8% | 39.6 | 16.9 | D |
| | Subtotal | 1,596 | 1,270 | 79.6% | 66.6 | 18.7 | E |
| EB | Left Turn | 170 | 157 | 92.1% | 33.8 | 4.6 | C |
| | Through | 24 | 24 | 100.4% | 34.1 | 15.9 | C |
| | Right Turn | 38 | 38 | 99.2% | 25.8 | 8.5 | C |
| | Subtotal | 232 | 218 | 94.1% | 32.0 | 5.1 | C |
| WB | Left Turn | 13 | 12 | 89.2% | 49.9 | 18.4 | D |
| | Through | 24 | 25 | 103.8% | 45.7 | 11.5 | D |
| | Right Turn | 30 | 29 | 95.3% | 19.1 | 8.7 | B |
| | Subtotal | 67 | 65 | 97.2% | 34.0 | 6.4 | C |
| Total | | 3,508 | 2,794 | 79.7% | 40.0 | 6.9 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
AM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 13 | 10 | 79.2% | 60.2 | 19.7 | E |
| | Through | 1,775 | 1,416 | 79.8% | 4.9 | 5.6 | A |
| | Right Turn | 37 | 28 | 76.5% | 3.0 | 3.1 | A |
| | Subtotal | 1,825 | 1,454 | 79.7% | 5.2 | 5.6 | A |
| SB | Left Turn | 12 | 12 | 97.5% | 47.7 | 27.2 | D |
| | Through | 492 | 495 | 100.7% | 3.5 | 1.0 | A |
| | Right Turn | 22 | 25 | 113.2% | 1.9 | 1.9 | A |
| | Subtotal | 526 | 532 | 101.1% | 4.9 | 1.8 | A |
| EB | Left Turn | 46 | 44 | 96.3% | 44.7 | 10.7 | D |
| | Through | 2 | 2 | 110.0% | 11.7 | 17.3 | B |
| | Right Turn | 8 | 8 | 96.3% | 4.9 | 4.1 | A |
| | Subtotal | 56 | 54 | 96.8% | 39.0 | 10.6 | D |
| WB | Left Turn | 15 | 15 | 96.7% | 55.7 | 32.4 | E |
| | Through | 2 | 2 | 90.0% | 35.1 | 43.6 | D |
| | Right Turn | 10 | 10 | 99.0% | 15.0 | 11.6 | B |
| | Subtotal | 27 | 26 | 97.0% | 43.8 | 22.4 | D |
| Total | | 2,434 | 2,067 | 84.9% | 6.7 | 4.2 | A |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 1,631 | 1,258 | 77.1% | 5.1 | 0.5 | A |
| | Right Turn | 1,613 | 1,238 | 76.7% | 4.8 | 0.2 | A |
| | Subtotal | 3,244 | 2,495 | 76.9% | 4.9 | 0.3 | A |
| SB | Left Turn | | | | | | |
| | Through | 558 | 558 | 100.1% | 53.6 | 4.4 | D |
| | Right Turn | 3 | 4 | 130.0% | 17.9 | 18.4 | B |
| | Subtotal | 561 | 562 | 100.2% | 53.4 | 4.4 | D |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 1,235 | 987 | 79.9% | 101.2 | 5.8 | F |
| | Through | 2 | 3 | 170.0% | 24.7 | 37.3 | C |
| | Right Turn | 22 | 20 | 88.6% | 79.3 | 29.1 | E |
| | Subtotal | 1,259 | 1,010 | 80.2% | 100.7 | 5.6 | F |
| Total | | 5,064 | 4,068 | 80.3% | 37.1 | 1.8 | D |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
AM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 195 | 144 | 73.9% | 112.2 | 17.5 | F |
| | Through | 2,809 | 2,098 | 74.7% | 93.9 | 8.4 | F |
| | Right Turn | 46 | 32 | 70.0% | 91.7 | 9.6 | F |
| | Subtotal | 3,050 | 2,275 | 74.6% | 95.0 | 8.9 | F |
| SB | Left Turn | 99 | 91 | 92.1% | 41.9 | 6.9 | D |
| | Through | 1,442 | 1,240 | 86.0% | 9.3 | 1.2 | A |
| | Right Turn | 252 | 219 | 86.7% | 4.9 | 1.0 | A |
| | Subtotal | 1,793 | 1,550 | 86.4% | 10.5 | 1.2 | B |
| EB | Left Turn | 210 | 175 | 83.5% | 380.1 | 40.7 | F |
| | Through | 202 | 168 | 83.3% | 335.6 | 25.6 | F |
| | Right Turn | 81 | 65 | 79.6% | 311.1 | 22.0 | F |
| | Subtotal | 493 | 408 | 82.8% | 351.3 | 32.1 | F |
| WB | Left Turn | 95 | 91 | 95.8% | 54.3 | 10.6 | D |
| | Through | 200 | 204 | 102.0% | 39.3 | 6.9 | D |
| | Right Turn | 225 | 220 | 97.6% | 15.8 | 3.9 | B |
| | Subtotal | 520 | 514 | 98.9% | 32.2 | 5.2 | C |
| Total | | 5,856 | 4,747 | 81.1% | 78.1 | 4.5 | E |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 25 | 26 | 105.2% | 5.4 | 4.7 | A |
| | Subtotal | 25 | 26 | 105.2% | 5.4 | 4.7 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 207 | 192 | 92.7% | 6.6 | 4.8 | A |
| | Right Turn | 5 | 4 | 84.0% | 3.1 | 9.3 | A |
| | Subtotal | 212 | 196 | 92.5% | 6.5 | 4.8 | A |
| WB | Left Turn | 35 | 27 | 75.7% | 3.3 | 2.5 | A |
| | Through | 342 | 277 | 80.8% | 0.4 | 0.1 | A |
| | Right Turn | | | | | | |
| | Subtotal | 377 | 303 | 80.4% | 0.6 | 0.2 | A |
| Total | | 614 | 525 | 85.6% | 3.2 | 2.4 | A |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
AM Peak Hour

Intersection 42 Residential Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 21 | 21 | 101.4% | 6.4 | 1.9 | A |
| | Through | | | | | | |
| | Right Turn | 31 | 29 | 94.8% | 3.7 | 1.2 | A |
| | Subtotal | 52 | 51 | 97.5% | 4.9 | 1.3 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 35 | 35 | 98.9% | 3.2 | 0.6 | A |
| | Subtotal | 35 | 35 | 98.9% | 3.2 | 0.6 | A |
| EB | Left Turn | 25 | 25 | 101.2% | 3.0 | 1.0 | A |
| | Through | 167 | 155 | 92.6% | 2.1 | 0.2 | A |
| | Right Turn | 8 | 7 | 85.0% | 1.4 | 1.0 | A |
| | Subtotal | 200 | 187 | 93.4% | 2.2 | 0.3 | A |
| WB | Left Turn | 11 | 9 | 77.3% | 2.5 | 1.7 | A |
| | Through | 320 | 258 | 80.6% | 0.2 | 0.1 | A |
| | Right Turn | 11 | 10 | 90.0% | 0.0 | 0.0 | A |
| | Subtotal | 342 | 276 | 80.8% | 0.3 | 0.1 | A |
| Total | | 629 | 549 | 87.4% | 1.7 | 0.3 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 2 | 50 | 5 | 50 | 12 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 0 | 25 | 0 | 25 | 0 | 0% | 0% |
| | Through | 375 | 75 | 14 | 150 | 28 | 225 | 50 | 1% | 0% |
| | Through/Right | 375 | 100 | 16 | 175 | 29 | 225 | 38 | 0% | 0% |
| SB | Left Turn | 225 | 50 | 7 | 100 | 15 | 125 | 41 | 0% | 0% |
| | Through | 375 | 50 | 20 | 150 | 56 | 200 | 86 | 10% | 0% |
| | Right Turn | 50 | 25 | 2 | 25 | 8 | 50 | 9 | 0% | 0% |
| WB | Left/Through | 125 | 25 | 3 | 50 | 10 | 75 | 19 | 0% | 0% |
| | Right Turn | 200 | 25 | 6 | 75 | 12 | 75 | 18 | 0% | 0% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 100 | 5 | 150 | 6 | 150 | 15 | 0% | 15% |
| | Through/Right | 125 | 50 | 7 | 100 | 11 | 125 | 13 | 0% | 1% |
| NB | Left Turn | 225 | 50 | 10 | 125 | 45 | 225 | 79 | 0% | 0% |
| | Through | 475 | 175 | 37 | 425 | 64 | 500 | 56 | 4% | 1% |
| | Through/Right | 475 | 175 | 35 | 400 | 60 | 500 | 52 | 0% | 1% |
| SB | Left Turn | 200 | 75 | 12 | 200 | 24 | 225 | 1 | 0% | 0% |
| | Through | 750 | 600 | 71 | 900 | 75 | 800 | 23 | 48% | 10% |
| | Right Turn | 375 | 300 | 47 | 525 | 22 | 400 | 0 | 1% | 0% |
| WB | Left Turn | 150 | 25 | 3 | 50 | 7 | 75 | 16 | 0% | 0% |
| | Through/Right | 150 | 50 | 6 | 100 | 14 | 125 | 17 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 50 | 3 | 100 | 8 | 125 | 17 | 17% | 0% |
| | Right Turn | 75 | 25 | 2 | 50 | 9 | 75 | 22 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 4 | 50 | 10 | 75 | 27 | 0% | 0% |
| | Through | 125 | 25 | 8 | 100 | 24 | 150 | 41 | 1% | 1% |
| | Through/Right | 125 | 50 | 6 | 125 | 20 | 150 | 39 | 0% | 1% |
| SB | Left Turn | 125 | 25 | 4 | 50 | 8 | 75 | 12 | 0% | 0% |
| | Through | 375 | 50 | 14 | 125 | 32 | 150 | 45 | 1% | 0% |
| | Right Turn | 125 | 25 | 3 | 25 | 16 | 75 | 37 | 0% | 0% |
| WB | Left Turn | 200 | 25 | 6 | 50 | 10 | 75 | 19 | 0% | 0% |
| | Through/Right | 200 | 25 | 3 | 50 | 7 | 50 | 15 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 6 | 100 | 16 | 125 | 46 | 0% | 0% |
| | Right Turn | 225 | 25 | 3 | 50 | 23 | 75 | 61 | 0% | 0% |
| SB | Through | 175 | 175 | 6 | 225 | 15 | 250 | 30 | 0% | 7% |
| | Through/Right | 175 | 150 | 5 | 225 | 9 | 225 | 15 | 0% | 5% |
| WB | Left Turn | 475 | 475 | 13 | 550 | 15 | 500 | 13 | 41% | 25% |
| | Shared | 300 | 325 | 1 | 325 | 3 | 325 | 0 | 19% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 150 | 3 | 175 | 7 | 150 | 0 | 31% | 31% |
| | Through | 150 | 225 | 2 | 250 | 7 | 250 | 9 | 53% | 74% |
| | Right Turn | 50 | 50 | 4 | 100 | 4 | 75 | 0 | 4% | 0% |
| NB | Left Turn | 275 | 175 | 26 | 300 | 24 | 250 | 0 | 0% | 0% |
| | Through | 275 | 350 | 6 | 375 | 13 | 375 | 12 | 47% | 47% |
| | Through/Right | 250 | 250 | 2 | 275 | 8 | 275 | 0 | 25% | 9% |
| SB | Left Turn | 175 | 75 | 9 | 100 | 15 | 125 | 24 | 0% | 0% |
| | Through | 225 | 100 | 8 | 225 | 17 | 300 | 26 | 0% | 0% |
| | Through/Right | 225 | 50 | 12 | 125 | 54 | 250 | 78 | 0% | 0% |
| WB | Left Turn | 100 | 100 | 8 | 150 | 6 | 125 | 0 | 11% | 0% |
| | Through | 325 | 175 | 24 | 275 | 51 | 325 | 60 | 27% | 1% |
| | Through/Right | 325 | 100 | 11 | 175 | 19 | 225 | 30 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Future Buildout Year + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 25 | 8 | 100 | 25 | 175 | 36 | 0% | 0% |
| | Through/Right | 200 | 25 | 2 | 25 | 13 | 50 | 35 | 0% | 0% |
| NB | Right Turn | 225 | 25 | 4 | 75 | 6 | 75 | 16 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 2 | 25 | 7 | 50 | 10 | 0% | 0% |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Future Buildout Year + Project
 AM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 2 | 25 | 6 | 50 | 12 | 0% | 0% |
| | Through | 200 | 25 | 1 | 25 | 6 | 25 | 17 | 0% | 0% |
| NB | Shared | 150 | 50 | 2 | 75 | 4 | 75 | 7 | 0% | 0% |
| | | | | | | | | | | |
| SB | Right Turn | 100 | 50 | 2 | 75 | 5 | 75 | 13 | 0% | 0% |
| | | | | | | | | | | |
| WB | Left Turn | 75 | 25 | 1 | 25 | 6 | 25 | 12 | 0% | 0% |
| | Through/Right | 200 | 25 | 0 | 25 | 3 | 25 | 8 | 0% | 0% |

Queues

8: Sepulveda BI & Jefferson BI

11/24/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|--------|------|-------|------|------|------|
| Lane Group Flow (vph) | 468 | 479 | 132 | 954 | 41 | 2050 | 74 | 937 | 704 |
| v/c Ratio | 0.61 | 0.61 | 0.17 | 1.49dr | 0.36 | 1.15 | 0.59 | 0.49 | 0.63 |
| Control Delay | 56.5 | 56.2 | 51.6 | 61.6 | 83.0 | 118.6 | 92.6 | 40.5 | 13.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.3 |
| Total Delay | 56.5 | 56.2 | 51.6 | 61.6 | 83.0 | 119.1 | 92.6 | 40.5 | 13.3 |
| Queue Length 50th (ft) | 256 | 261 | 59 | 326 | 43 | ~974 | 79 | 297 | 284 |
| Queue Length 95th (ft) | 325 | 330 | 91 | 384 | 88 | #1063 | #145 | 344 | 413 |
| Internal Link Dist (ft) | | 709 | | 1373 | | 504 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 846 | 870 | 797 | 1149 | 115 | 1788 | 126 | 1931 | 1161 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 237 | 0 | 0 | 107 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.55 | 0.17 | 0.83 | 0.36 | 1.32 | 0.59 | 0.49 | 0.67 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 626 | 262 | 11 | 125 | 279 | 627 | 39 | 1854 | 93 | 70 | 890 | 669 |
| Future Volume (veh/h) | 626 | 262 | 11 | 125 | 279 | 627 | 39 | 1854 | 93 | 70 | 890 | 669 |
| 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 | 566 | 406 | 0 | 132 | 294 | 0 | 41 | 1952 | 98 | 74 | 937 | 704 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 787 | 826 | | 413 | 610 | | 117 | 2196 | 110 | 151 | 2382 | 1091 |
| Arrive On Green | 0.22 | 0.22 | 0.00 | 0.12 | 0.12 | 0.00 | 0.07 | 0.44 | 0.42 | 0.08 | 0.47 | 0.47 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4980 | 249 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 566 | 406 | 0 | 132 | 294 | 0 | 41 | 1333 | 717 | 74 | 937 | 704 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1825 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 18.5 | 11.9 | 0.0 | 4.4 | 6.8 | 0.0 | 2.8 | 45.1 | 45.5 | 5.0 | 15.1 | 31.3 |
| Cycle Q Clear(g_c), s | 18.5 | 11.9 | 0.0 | 4.4 | 6.8 | 0.0 | 2.8 | 45.1 | 45.5 | 5.0 | 15.1 | 31.3 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 787 | 826 | | 413 | 610 | | 117 | 1501 | 805 | 151 | 2382 | 1091 |
| V/C Ratio(X) | 0.72 | 0.49 | | 0.32 | 0.48 | | 0.35 | 0.89 | 0.89 | 0.49 | 0.39 | 0.65 |
| Avail Cap(c_a), veh/h | 1257 | 1320 | | 1019 | 1505 | | 148 | 1527 | 819 | 162 | 2382 | 1091 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.3 | 42.7 | 0.0 | 50.6 | 51.6 | 0.0 | 56.1 | 32.2 | 32.5 | 54.8 | 21.9 | 11.0 |
| Incr Delay (d2), s/veh | 1.3 | 0.5 | 0.0 | 0.4 | 0.6 | 0.0 | 1.8 | 6.7 | 11.9 | 2.4 | 0.1 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.3 | 5.6 | 0.0 | 1.9 | 2.9 | 0.0 | 1.3 | 19.3 | 22.1 | 2.3 | 5.9 | 20.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.5 | 43.2 | 0.0 | 51.0 | 52.2 | 0.0 | 57.9 | 38.9 | 44.4 | 57.3 | 22.0 | 12.3 |
| LnGrp LOS | D | D | | D | D | | E | D | D | E | C | B |
| Approach Vol, veh/h | | 972 | A | | 426 | A | | 2091 | | | 1715 | |
| Approach Delay, s/veh | | 45.1 | | | 51.8 | | | 41.2 | | | 19.5 | |
| Approach LOS | | D | | | D | | | D | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.2 | 62.5 | | 31.7 | 15.4 | 59.3 | | 19.0 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 6.2 | * 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 55.1 | | 42.0 | * 10 | * 54 | | 36.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 33.3 | | 20.5 | 7.0 | 47.5 | | 8.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.1 | | 5.0 | 0.0 | 5.5 | | 2.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.7 |
| HCM 6th LOS | D |

Notes

User approved volume balancing among the lanes for turning movement.

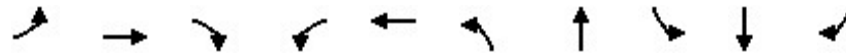
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 165 | 944 | 191 | 12 | 985 | 324 | 281 | 26 | 108 | 119 |
| v/c Ratio | 0.64 | 0.40 | 0.17 | 0.08 | 0.60 | 0.57 | 0.47 | 0.11 | 0.28 | 0.27 |
| Control Delay | 58.6 | 20.6 | 3.4 | 57.5 | 32.8 | 48.6 | 36.8 | 51.8 | 41.6 | 6.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.6 | 20.6 | 3.4 | 57.5 | 32.8 | 48.6 | 36.8 | 51.8 | 41.6 | 6.9 |
| Queue Length 50th (ft) | 108 | 139 | 11 | 8 | 205 | 108 | 168 | 16 | 61 | 0 |
| Queue Length 95th (ft) | 219 | 252 | 49 | 33 | 320 | 195 | 316 | 54 | 143 | 41 |
| Internal Link Dist (ft) | | 405 | | | 709 | | 515 | | 589 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 548 | 3746 | 1305 | 205 | 2733 | 1031 | 908 | 274 | 650 | 640 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.25 | 0.15 | 0.06 | 0.36 | 0.31 | 0.31 | 0.09 | 0.17 | 0.19 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↗ | ↑↑↑ | ↘ | ↖ | ↑↑↑ | | ↖ | ↑ | | ↗ | ↑ | ↘ |
| Traffic Volume (veh/h) | 157 | 897 | 181 | 11 | 866 | 69 | 308 | 239 | 28 | 25 | 103 | 113 |
| Future Volume (veh/h) | 157 | 897 | 181 | 11 | 866 | 69 | 308 | 239 | 28 | 25 | 103 | 113 |
| 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 | 165 | 944 | 191 | 12 | 912 | 73 | 324 | 252 | 0 | 26 | 108 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 201 | 2312 | 941 | 46 | 1763 | 141 | 531 | 506 | | 136 | 339 | |
| Arrive On Green | 0.11 | 0.45 | 0.44 | 0.03 | 0.37 | 0.34 | 0.15 | 0.27 | 0.00 | 0.08 | 0.18 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 4820 | 385 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 165 | 944 | 191 | 12 | 643 | 342 | 324 | 252 | 0 | 26 | 108 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1801 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 8.3 | 11.4 | 5.1 | 0.6 | 13.5 | 13.7 | 8.0 | 10.4 | 0.0 | 1.3 | 4.6 | 0.0 |
| Cycle Q Clear(g_c), s | 8.3 | 11.4 | 5.1 | 0.6 | 13.5 | 13.7 | 8.0 | 10.4 | 0.0 | 1.3 | 4.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.21 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 201 | 2312 | 941 | 46 | 1245 | 659 | 531 | 506 | | 136 | 339 | |
| V/C Ratio(X) | 0.82 | 0.41 | 0.20 | 0.26 | 0.52 | 0.52 | 0.61 | 0.50 | | 0.19 | 0.32 | |
| Avail Cap(c_a), veh/h | 622 | 4233 | 1537 | 233 | 2079 | 1100 | 1168 | 1040 | | 311 | 734 | |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 39.8 | 16.8 | 8.6 | 43.8 | 22.7 | 23.0 | 36.2 | 28.2 | 0.0 | 39.7 | 32.6 | 0.0 |
| Incr Delay (d2), s/veh | 3.2 | 0.2 | 0.2 | 1.1 | 0.7 | 1.4 | 0.4 | 1.6 | 0.0 | 0.3 | 1.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 4.3 | 1.7 | 0.3 | 5.4 | 5.9 | 3.4 | 4.8 | 0.0 | 0.6 | 2.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.9 | 17.1 | 8.8 | 44.9 | 23.5 | 24.3 | 36.6 | 29.8 | 0.0 | 39.9 | 33.8 | 0.0 |
| LnGrp LOS | D | B | A | D | C | C | D | C | | D | C | |
| Approach Vol, veh/h | | 1300 | | | 997 | | | 576 | A | | 134 | A |
| Approach Delay, s/veh | | 19.2 | | | 24.0 | | | 33.7 | | | 35.0 | |
| Approach LOS | | B | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.4 | 37.5 | 18.1 | 21.7 | 6.4 | 45.5 | 11.0 | 28.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 32.0 | 53.7 | * 30 | * 34 | 12.0 | 73.7 | * 15 | 48.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.3 | 15.7 | 10.0 | 6.6 | 2.6 | 13.4 | 3.3 | 12.4 | | | | |
| Green Ext Time (p_c), s | 0.2 | 15.5 | 0.6 | 1.0 | 0.0 | 20.9 | 0.0 | 3.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 24.2 |
| HCM 6th LOS | C |

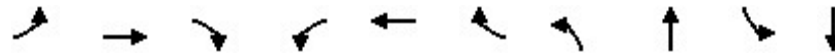
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 33 | 202 | 76 | 106 | 396 | 371 | 124 | 1755 | 213 | 858 |
| v/c Ratio | 0.19 | 0.34 | 0.15 | 0.30 | 0.49 | 0.61 | 0.42 | 0.69 | 0.66 | 0.33 |
| Control Delay | 53.0 | 44.5 | 0.8 | 51.7 | 43.0 | 19.6 | 56.6 | 25.9 | 63.1 | 18.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.0 | 44.5 | 0.8 | 51.7 | 43.0 | 19.6 | 56.6 | 25.9 | 63.1 | 18.9 |
| Queue Length 50th (ft) | 24 | 75 | 0 | 39 | 155 | 117 | 47 | 350 | 83 | 131 |
| Queue Length 95th (ft) | 57 | 94 | 2 | 68 | 175 | 153 | 79 | 532 | 125 | 213 |
| Internal Link Dist (ft) | | 515 | | | 948 | | | 736 | | 504 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 260 | |
| Base Capacity (vph) | 171 | 1058 | 494 | 355 | 1029 | 606 | 297 | 2533 | 326 | 2572 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.19 | 0.15 | 0.30 | 0.38 | 0.61 | 0.42 | 0.69 | 0.65 | 0.33 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | ↗ | ↑↑ | ↘ | ↗↘ | ↑↑ | ↘ | ↗↘ | ↑↑↘ | | ↗↘ | ↑↑↘ | |
| Traffic Volume (veh/h) | 31 | 192 | 72 | 101 | 376 | 352 | 118 | 1625 | 42 | 202 | 798 | 17 |
| Future Volume (veh/h) | 31 | 192 | 72 | 101 | 376 | 352 | 118 | 1625 | 42 | 202 | 798 | 17 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.96 | 1.00 | | 0.96 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 33 | 202 | 76 | 106 | 396 | 371 | 124 | 1711 | 44 | 213 | 840 | 18 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 757 | 452 | 297 | 866 | 664 | 295 | 1870 | 48 | 649 | 2423 | 52 |
| Arrive On Green | 0.07 | 0.21 | 0.21 | 0.09 | 0.24 | 0.24 | 0.09 | 0.37 | 0.35 | 0.19 | 0.47 | 0.45 |
| Sat Flow, veh/h | 1781 | 3554 | 1513 | 3456 | 3554 | 1518 | 3456 | 5113 | 131 | 3456 | 5142 | 110 |
| Grp Volume(v), veh/h | 33 | 202 | 76 | 106 | 396 | 371 | 124 | 1139 | 616 | 213 | 556 | 302 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1513 | 1728 | 1777 | 1518 | 1728 | 1702 | 1840 | 1728 | 1702 | 1847 |
| Q Serve(g_s), s | 2.1 | 5.7 | 3.1 | 3.5 | 11.4 | 3.3 | 4.1 | 38.3 | 38.3 | 6.4 | 12.4 | 12.4 |
| Cycle Q Clear(g_c), s | 2.1 | 5.7 | 3.1 | 3.5 | 11.4 | 3.3 | 4.1 | 38.3 | 38.3 | 6.4 | 12.4 | 12.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 118 | 757 | 452 | 297 | 866 | 664 | 295 | 1245 | 673 | 649 | 1604 | 871 |
| V/C Ratio(X) | 0.28 | 0.27 | 0.17 | 0.36 | 0.46 | 0.56 | 0.42 | 0.91 | 0.92 | 0.33 | 0.35 | 0.35 |
| Avail Cap(c_a), veh/h | 172 | 1063 | 582 | 305 | 1034 | 735 | 299 | 1308 | 707 | 649 | 1604 | 871 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 |
| Uniform Delay (d), s/veh | 53.3 | 39.4 | 16.2 | 51.7 | 38.6 | 12.2 | 52.1 | 36.3 | 36.3 | 42.2 | 20.0 | 20.1 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.1 | 0.3 | 0.1 | 0.3 | 0.4 | 11.9 | 19.2 | 0.1 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 2.5 | 1.3 | 1.5 | 5.0 | 4.9 | 1.8 | 17.7 | 20.5 | 2.8 | 5.0 | 5.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.8 | 39.5 | 16.3 | 52.0 | 38.8 | 12.5 | 52.4 | 48.1 | 55.6 | 42.3 | 20.6 | 21.1 |
| LnGrp LOS | D | D | B | D | D | B | D | D | E | D | C | C |
| Approach Vol, veh/h | | 311 | | | 873 | | | 1879 | | | 1071 | |
| Approach Delay, s/veh | | 35.3 | | | 29.2 | | | 50.9 | | | 25.0 | |
| Approach LOS | | D | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.3 | 60.6 | 15.6 | 29.6 | 26.9 | 47.9 | 11.9 | 33.2 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | * 45 | * 10 | * 34 | 9.8 | * 44 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.1 | 14.4 | 5.5 | 7.7 | 8.4 | 40.3 | 4.1 | 13.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.5 | 0.0 | 0.3 | 0.0 | 1.8 | 0.0 | 0.7 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.4 |
| HCM 6th LOS | D |

Notes

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

Queues

11: Sepulveda Bl & Braddock Dr

11/24/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 381 | 329 | 74 | 1759 | 206 | 35 | 561 | 112 |
| v/c Ratio | 0.92 | 0.80 | 0.15 | 0.77 | 0.20 | 0.48 | 0.25 | 0.11 |
| Control Delay | 69.1 | 53.7 | 3.7 | 12.0 | 2.2 | 40.0 | 10.0 | 2.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.1 | 53.7 | 3.7 | 12.0 | 2.2 | 40.0 | 10.0 | 2.7 |
| Queue Length 50th (ft) | 273 | 225 | 6 | 83 | 4 | 14 | 95 | 4 |
| Queue Length 95th (ft) | #433 | 333 | m5 | 721 | 0 | #71 | 130 | 26 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 460 | 457 | 498 | 2274 | 1038 | 73 | 2274 | 1052 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.83 | 0.72 | 0.15 | 0.77 | 0.20 | 0.48 | 0.25 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 72 | 232 | 58 | 61 | 209 | 43 | 70 | 1671 | 196 | 33 | 533 | 106 |
| Future Volume (veh/h) | 72 | 232 | 58 | 61 | 209 | 43 | 70 | 1671 | 196 | 33 | 533 | 106 |
| 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 | 76 | 244 | 61 | 64 | 220 | 45 | 74 | 1759 | 206 | 35 | 561 | 112 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 103 | 285 | 67 | 95 | 291 | 55 | 492 | 2249 | 1003 | 121 | 2249 | 1003 |
| Arrive On Green | 0.30 | 0.30 | 0.29 | 0.30 | 0.30 | 0.29 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| Sat Flow, veh/h | 224 | 949 | 224 | 196 | 967 | 184 | 765 | 3554 | 1585 | 223 | 3554 | 1585 |
| Grp Volume(v), veh/h | 381 | 0 | 0 | 329 | 0 | 0 | 74 | 1759 | 206 | 35 | 561 | 112 |
| Grp Sat Flow(s),veh/h/ln | 1397 | 0 | 0 | 1347 | 0 | 0 | 765 | 1777 | 1585 | 223 | 1777 | 1585 |
| Q Serve(g_s), s | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 43.2 | 6.6 | 16.3 | 8.3 | 3.3 |
| Cycle Q Clear(g_c), s | 32.3 | 0.0 | 0.0 | 27.3 | 0.0 | 0.0 | 13.9 | 43.2 | 6.6 | 59.4 | 8.3 | 3.3 |
| Prop In Lane | 0.20 | | 0.16 | 0.19 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 456 | 0 | 0 | 441 | 0 | 0 | 492 | 2249 | 1003 | 121 | 2249 | 1003 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.00 | 0.75 | 0.00 | 0.00 | 0.15 | 0.78 | 0.21 | 0.29 | 0.25 | 0.11 |
| Avail Cap(c_a), veh/h | 495 | 0 | 0 | 480 | 0 | 0 | 492 | 2249 | 1003 | 121 | 2249 | 1003 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 40.4 | 0.0 | 0.0 | 37.9 | 0.0 | 0.0 | 12.6 | 16.0 | 9.3 | 37.6 | 9.6 | 8.7 |
| Incr Delay (d2), s/veh | 10.2 | 0.0 | 0.0 | 4.9 | 0.0 | 0.0 | 0.6 | 2.8 | 0.5 | 2.8 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.2 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 1.0 | 16.4 | 2.2 | 1.0 | 3.0 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.6 | 0.0 | 0.0 | 42.7 | 0.0 | 0.0 | 13.3 | 18.8 | 9.8 | 40.4 | 9.7 | 8.8 |
| LnGrp LOS | D | A | A | D | A | A | B | B | A | D | A | A |
| Approach Vol, veh/h | | 381 | | | 329 | | | 2039 | | | | 708 |
| Approach Delay, s/veh | | 50.6 | | | 42.7 | | | 17.7 | | | | 11.1 |
| Approach LOS | | D | | | D | | | B | | | | B |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 79.9 | | 40.1 | | 79.9 | | 40.1 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 71.3 | | * 38 | | 71.3 | | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | | 45.2 | | 34.3 | | 61.4 | | 29.3 | | | | |
| Green Ext Time (p_c), s | | 23.2 | | 0.6 | | 5.1 | | 0.9 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.3 |
| HCM 6th LOS | C |

Notes

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

Future Buildout Year Plus Project PM

Queues

1: Culver Blvd & Sepulveda Blvd

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 263 | 1363 | 118 | 271 | 1473 | 151 | 864 | 202 | 60 | 1261 | 306 |
| v/c Ratio | 0.75 | 1.11 | 0.18 | 0.83 | 0.86 | 0.44 | 0.69 | 0.31 | 0.25 | 1.10 | 0.50 |
| Control Delay | 66.8 | 99.3 | 1.1 | 74.9 | 42.8 | 55.2 | 38.0 | 8.8 | 31.2 | 95.5 | 16.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.8 | 99.3 | 1.1 | 74.9 | 42.8 | 55.2 | 38.0 | 8.8 | 31.2 | 95.5 | 16.6 |
| Queue Length 50th (ft) | 103 | ~635 | 0 | 108 | 385 | 57 | 313 | 20 | 32 | ~582 | 77 |
| Queue Length 95th (ft) | #160 | #774 | 6 | #177 | 449 | 92 | 391 | 78 | 65 | #719 | 166 |
| Internal Link Dist (ft) | | 456 | | | 925 | | 785 | | | 1194 | |
| Turn Bay Length (ft) | 245 | | 150 | 135 | | 120 | | 80 | 200 | | 135 |
| Base Capacity (vph) | 349 | 1226 | 655 | 326 | 1716 | 343 | 1244 | 642 | 236 | 1150 | 610 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 1.11 | 0.18 | 0.83 | 0.86 | 0.44 | 0.69 | 0.31 | 0.25 | 1.10 | 0.50 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: Culver Blvd & Sepulveda Blvd

11/24/2020

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 250 | 1295 | 112 | 257 | 1321 | 78 | 143 | 821 | 192 | 57 | 1198 | 291 |
| Future Volume (veh/h) | 250 | 1295 | 112 | 257 | 1321 | 78 | 143 | 821 | 192 | 57 | 1198 | 291 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| 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 | 263 | 1363 | 118 | 271 | 1391 | 82 | 151 | 864 | 202 | 60 | 1261 | 306 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 331 | 1232 | 534 | 2635 | 5049 | 298 | 344 | 1229 | 528 | 216 | 1155 | 495 |
| Arrive On Green | 0.10 | 0.35 | 0.35 | 0.76 | 1.00 | 1.00 | 0.10 | 0.35 | 0.35 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3456 | 3554 | 1541 | 3456 | 4925 | 290 | 3456 | 3554 | 1525 | 1781 | 3554 | 1524 |
| Grp Volume(v), veh/h | 263 | 1363 | 118 | 271 | 961 | 512 | 151 | 864 | 202 | 60 | 1261 | 306 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1541 | 1728 | 1702 | 1812 | 1728 | 1777 | 1525 | 1781 | 1777 | 1524 |
| Q Serve(g_s), s | 8.9 | 41.6 | 6.5 | 2.4 | 0.0 | 0.0 | 4.9 | 25.2 | 8.5 | 2.9 | 39.0 | 35.1 |
| Cycle Q Clear(g_c), s | 8.9 | 41.6 | 6.5 | 2.4 | 0.0 | 0.0 | 4.9 | 25.2 | 8.5 | 2.9 | 39.0 | 35.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 331 | 1232 | 534 | 2635 | 3489 | 1857 | 344 | 1229 | 528 | 216 | 1155 | 495 |
| V/C Ratio(X) | 0.79 | 1.11 | 0.22 | 0.10 | 0.28 | 0.28 | 0.44 | 0.70 | 0.38 | 0.28 | 1.09 | 0.62 |
| Avail Cap(c_a), veh/h | 351 | 1232 | 534 | 2635 | 3489 | 1857 | 346 | 1229 | 528 | 238 | 1155 | 495 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.1 | 39.2 | 27.7 | 3.7 | 0.0 | 0.0 | 50.9 | 33.9 | 15.0 | 33.2 | 40.5 | 101.9 |
| Incr Delay (d2), s/veh | 13.4 | 60.0 | 1.0 | 0.0 | 0.2 | 0.4 | 0.3 | 2.3 | 1.0 | 0.3 | 55.2 | 3.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 28.1 | 2.6 | 0.7 | 0.1 | 0.2 | 2.2 | 11.2 | 3.1 | 1.3 | 25.6 | 14.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 66.5 | 99.2 | 28.7 | 3.7 | 0.2 | 0.4 | 51.2 | 36.2 | 16.0 | 33.4 | 95.7 | 105.3 |
| LnGrp LOS | E | F | C | A | A | A | D | D | B | C | F | F |
| Approach Vol, veh/h | | 1744 | | | 1744 | | | 1217 | | | 1627 | |
| Approach Delay, s/veh | | 89.5 | | | 0.8 | | | 34.7 | | | 95.2 | |
| Approach LOS | | F | | | A | | | C | | | F | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.5 | 129.4 | 14.5 | 45.5 | 99.3 | 45.6 | 17.0 | 43.0 | | | | |
| Change Period (Y+Rc), s | 4.4 | * 5.8 | 5.0 | * 6.1 | * 5.8 | * 5.8 | * 6.1 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | 11.8 | * 39 | 11.0 | * 37 | * 11 | * 40 | * 11 | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.9 | 2.0 | 4.9 | 27.2 | 4.4 | 43.6 | 6.9 | 41.0 | | | | |
| Green Ext Time (p_c), s | 0.2 | 24.5 | 0.0 | 6.7 | 0.3 | 0.0 | 0.1 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 56.0 | | | | | | | | |
| HCM 6th LOS | | | | E | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Queues

2: Jefferson Blvd & Overland Ave

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 175 | 918 | 348 | 57 | 717 | 695 | 381 | 1132 | 435 | 739 | 222 |
| v/c Ratio | 0.98 | 0.88 | 0.45 | 0.34 | 0.77 | 0.95 | 0.74 | 0.96 | 0.76 | 0.59 | 0.32 |
| Control Delay | 115.9 | 51.4 | 9.3 | 57.0 | 46.9 | 44.0 | 44.1 | 33.4 | 57.3 | 35.1 | 5.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 115.9 | 51.4 | 9.3 | 57.0 | 46.9 | 44.0 | 44.1 | 33.4 | 57.3 | 35.1 | 5.2 |
| Queue Length 50th (ft) | 137 | 364 | 65 | 42 | 266 | 291 | 137 | 433 | 167 | 251 | 0 |
| Queue Length 95th (ft) | #282 | #490 | 113 | 86 | 338 | #602 | m144 | #584 | 225 | 326 | 55 |
| Internal Link Dist (ft) | | 639 | | | 985 | | | 773 | | 492 | |
| Turn Bay Length (ft) | 195 | | 110 | 185 | | 185 | 220 | | 200 | | |
| Base Capacity (vph) | 179 | 1047 | 807 | 169 | 967 | 732 | 589 | 1177 | 572 | 1244 | 686 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.98 | 0.88 | 0.43 | 0.34 | 0.74 | 0.95 | 0.65 | 0.96 | 0.76 | 0.59 | 0.32 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Jefferson Blvd & Overland Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 166 | 872 | 331 | 54 | 681 | 660 | 362 | 1026 | 49 | 413 | 702 | 211 |
| Future Volume (veh/h) | 166 | 872 | 331 | 54 | 681 | 660 | 362 | 1026 | 49 | 413 | 702 | 211 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 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 | 175 | 918 | 348 | 57 | 717 | 695 | 381 | 1080 | 0 | 435 | 739 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 181 | 992 | 630 | 139 | 961 | 674 | 465 | 1155 | | 569 | 1279 | |
| Arrive On Green | 0.10 | 0.28 | 0.27 | 0.08 | 0.27 | 0.27 | 0.13 | 0.32 | 0.00 | 0.16 | 0.36 | 0.00 |
| Sat Flow, veh/h | 1781 | 3554 | 1534 | 1781 | 3554 | 1553 | 3456 | 3647 | 0 | 3456 | 3554 | 1585 |
| Grp Volume(v), veh/h | 175 | 918 | 348 | 57 | 717 | 695 | 381 | 1080 | 0 | 435 | 739 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1534 | 1781 | 1777 | 1553 | 1728 | 1777 | 0 | 1728 | 1777 | 1585 |
| Q Serve(g_s), s | 11.7 | 30.1 | 13.6 | 3.7 | 22.1 | 23.0 | 12.9 | 35.4 | 0.0 | 14.4 | 20.2 | 0.0 |
| Cycle Q Clear(g_c), s | 11.7 | 30.1 | 13.6 | 3.7 | 22.1 | 23.0 | 12.9 | 35.4 | 0.0 | 14.4 | 20.2 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 181 | 992 | 630 | 139 | 961 | 674 | 465 | 1155 | | 569 | 1279 | |
| V/C Ratio(X) | 0.97 | 0.93 | 0.55 | 0.41 | 0.75 | 1.03 | 0.82 | 0.94 | | 0.77 | 0.58 | |
| Avail Cap(c_a), veh/h | 181 | 992 | 630 | 171 | 971 | 679 | 593 | 1155 | | 576 | 1279 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 53.7 | 42.0 | 12.6 | 52.7 | 40.0 | 17.6 | 50.5 | 39.3 | 0.0 | 47.9 | 31.0 | 0.0 |
| Incr Delay (d2), s/veh | 56.5 | 14.5 | 1.8 | 0.7 | 3.8 | 42.8 | 5.6 | 14.9 | 0.0 | 5.4 | 1.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.1 | 15.1 | 4.8 | 1.7 | 10.1 | 14.5 | 5.9 | 17.6 | 0.0 | 6.6 | 8.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 110.2 | 56.5 | 14.5 | 53.4 | 43.8 | 60.3 | 56.1 | 54.2 | 0.0 | 53.3 | 32.9 | 0.0 |
| LnGrp LOS | F | E | B | D | D | F | E | D | | D | C | |
| Approach Vol, veh/h | | 1441 | | | 1469 | | | 1461 | A | | 1174 | A |
| Approach Delay, s/veh | | 52.9 | | | 52.0 | | | 54.7 | | | 40.5 | |
| Approach LOS | | D | | | D | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 24.3 | 43.0 | 15.2 | 37.5 | 20.1 | 47.2 | 16.2 | 36.5 | | | | |
| Change Period (Y+Rc), s | 5.9 | * 5.8 | 5.8 | * 5.8 | 4.9 | * 5.9 | 4.0 | 5.8 | | | | |
| Max Green Setting (Gmax), s | 18.7 | * 37 | 11.5 | * 32 | 19.7 | * 37 | 12.2 | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 16.4 | 37.4 | 5.7 | 32.1 | 14.9 | 22.2 | 13.7 | 25.0 | | | | |
| Green Ext Time (p_c), s | 0.3 | 0.0 | 0.0 | 0.0 | 0.4 | 7.0 | 0.0 | 5.0 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 50.5 |
| HCM 6th LOS | D |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
PM Peak Hour

Intersection 3 Sepulveda Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | LOS |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | |
| NB | Left Turn | 4 | 3 | 70.0% | 48.6 | 58.1 | D |
| | Through | 923 | 776 | 84.1% | 25.0 | 5.5 | C |
| | Right Turn | 80 | 70 | 87.6% | 14.5 | 8.5 | B |
| | Subtotal | 1,007 | 849 | 84.3% | 24.3 | 5.3 | C |
| SB | Left Turn | 282 | 226 | 80.0% | 375.8 | 32.6 | F |
| | Through | 1,335 | 1,022 | 76.6% | 402.3 | 40.4 | F |
| | Right Turn | 4 | 3 | 75.0% | 368.7 | 65.1 | F |
| | Subtotal | 1,621 | 1,251 | 77.2% | 397.3 | 39.1 | F |
| EB | Left Turn | | | | | | |
| | Through | 6 | 6 | 95.0% | 39.8 | 34.1 | D |
| | Right Turn | 1 | 1 | 90.0% | 3.1 | 9.7 | A |
| | Subtotal | 7 | 7 | 94.3% | 40.2 | 33.8 | D |
| WB | Left Turn | 34 | 26 | 75.9% | 215.6 | 209.6 | F |
| | Through | 3 | 5 | 153.3% | 89.5 | 214.1 | F |
| | Right Turn | 274 | 243 | 88.6% | 8.7 | 3.6 | A |
| | Subtotal | 311 | 273 | 87.8% | 23.9 | 10.7 | C |
| Total | | 2,946 | 2,379 | 80.8% | 222.9 | 17.7 | F |

Intersection 4 Jefferson Bl/Machado Rd Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | LOS |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | |
| NB | Left Turn | 53 | 44 | 82.3% | 17.8 | 5.1 | B |
| | Through | 1,323 | 1,098 | 83.0% | 16.6 | 3.1 | B |
| | Right Turn | 70 | 57 | 80.7% | 12.9 | 2.9 | B |
| | Subtotal | 1,446 | 1,198 | 82.9% | 16.5 | 3.0 | B |
| SB | Left Turn | 88 | 74 | 84.1% | 139.3 | 26.5 | F |
| | Through | 894 | 758 | 84.8% | 167.3 | 26.0 | F |
| | Right Turn | 240 | 203 | 84.4% | 82.8 | 21.8 | F |
| | Subtotal | 1,222 | 1,034 | 84.6% | 148.9 | 26.3 | F |
| EB | Left Turn | 244 | 211 | 86.3% | 34.1 | 9.0 | C |
| | Through | 106 | 96 | 90.1% | 30.0 | 7.6 | C |
| | Right Turn | 37 | 30 | 79.7% | 28.8 | 11.9 | C |
| | Subtotal | 387 | 336 | 86.7% | 32.3 | 8.3 | C |
| WB | Left Turn | 39 | 35 | 89.2% | 39.4 | 5.8 | D |
| | Through | 55 | 58 | 104.9% | 38.1 | 3.3 | D |
| | Right Turn | 1 | 2 | 150.0% | 8.4 | 18.0 | A |
| | Subtotal | 95 | 94 | 98.9% | 38.8 | 3.2 | D |
| Total | | 3,150 | 2,662 | 84.5% | 69.6 | 8.5 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
PM Peak Hour

Intersection 5 Sepulveda Bl/Janisann Av/Project Driveway Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 28 | 22 | 77.1% | 64.4 | 30.3 | E |
| | Through | 957 | 798 | 83.4% | 7.6 | 2.1 | A |
| | Right Turn | 56 | 46 | 81.8% | 5.7 | 3.6 | A |
| | Subtotal | 1,041 | 866 | 83.2% | 8.7 | 1.8 | A |
| SB | Left Turn | 26 | 20 | 76.2% | 114.1 | 33.9 | F |
| | Through | 1,264 | 957 | 75.7% | 87.2 | 12.6 | F |
| | Right Turn | 80 | 62 | 77.9% | 66.2 | 11.1 | E |
| | Subtotal | 1,370 | 1,039 | 75.8% | 86.2 | 12.1 | F |
| EB | Left Turn | 20 | 19 | 93.0% | 56.4 | 32.9 | E |
| | Through | 3 | 3 | 100.0% | 25.2 | 41.1 | C |
| | Right Turn | 11 | 11 | 101.8% | 23.8 | 18.1 | C |
| | Subtotal | 34 | 33 | 96.5% | 42.1 | 15.3 | D |
| WB | Left Turn | 40 | 37 | 92.5% | 51.7 | 16.4 | D |
| | Through | 4 | 4 | 90.0% | 10.3 | 22.6 | B |
| | Right Turn | 30 | 31 | 104.3% | 5.1 | 1.5 | A |
| | Subtotal | 74 | 72 | 97.2% | 30.6 | 10.7 | C |
| Total | | 2,519 | 2,010 | 79.8% | 49.3 | 4.8 | D |

Intersection 6 Sepulveda Bl/Jefferson Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | 995 | 821 | 82.5% | 3.6 | 0.4 | A |
| | Right Turn | 1,446 | 1,199 | 82.9% | 3.9 | 0.3 | A |
| | Subtotal | 2,441 | 2,020 | 82.8% | 3.8 | 0.2 | A |
| SB | Left Turn | | | | | | |
| | Through | 1,331 | 987 | 74.1% | 129.1 | 11.7 | F |
| | Right Turn | 15 | 12 | 79.3% | 114.5 | 23.8 | F |
| | Subtotal | 1,346 | 999 | 74.2% | 128.9 | 11.6 | F |
| EB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| WB | Left Turn | 945 | 778 | 82.3% | 149.9 | 12.0 | F |
| | Through | 9 | 7 | 76.7% | 131.9 | 64.3 | F |
| | Right Turn | 16 | 13 | 83.1% | 139.1 | 42.7 | F |
| | Subtotal | 970 | 798 | 82.3% | 149.8 | 11.8 | F |
| Total | | 4,757 | 3,817 | 80.2% | 66.7 | 2.3 | E |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
PM Peak Hour

Intersection 7 Sepulveda Bl/Sawtelle Bl Signal

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 99 | 81 | 82.0% | 126.2 | 25.2 | F |
| | Through | 2,117 | 1,729 | 81.7% | 86.5 | 12.5 | F |
| | Right Turn | 64 | 49 | 76.7% | 88.4 | 12.3 | F |
| | Subtotal | 2,280 | 1,859 | 81.6% | 88.3 | 12.3 | F |
| SB | Left Turn | 140 | 108 | 77.3% | 51.4 | 5.2 | D |
| | Through | 1,967 | 1,520 | 77.3% | 36.3 | 3.7 | D |
| | Right Turn | 169 | 136 | 80.3% | 27.7 | 4.8 | C |
| | Subtotal | 2,276 | 1,764 | 77.5% | 36.5 | 3.6 | D |
| EB | Left Turn | 200 | 171 | 85.4% | 277.6 | 40.1 | F |
| | Through | 242 | 207 | 85.7% | 241.0 | 34.2 | F |
| | Right Turn | 266 | 230 | 86.6% | 225.7 | 42.1 | F |
| | Subtotal | 708 | 608 | 85.9% | 245.2 | 37.9 | F |
| WB | Left Turn | 66 | 69 | 103.9% | 77.1 | 26.5 | E |
| | Through | 165 | 167 | 101.2% | 50.4 | 25.7 | D |
| | Right Turn | 124 | 122 | 98.2% | 13.1 | 2.0 | B |
| | Subtotal | 355 | 357 | 100.7% | 42.2 | 14.3 | D |
| Total | | 5,619 | 4,589 | 81.7% | 83.0 | 7.3 | F |

Intersection 36 Commercial Driveway/Machado Rd Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|---------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 58 | 59 | 101.7% | 10.9 | 5.8 | B |
| | Subtotal | 58 | 59 | 101.7% | 10.9 | 5.8 | B |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | | | | | | |
| | Subtotal | | | | | | |
| EB | Left Turn | | | | | | |
| | Through | 329 | 277 | 84.1% | 18.6 | 14.7 | C |
| | Right Turn | 5 | 4 | 84.0% | 2.2 | 6.4 | A |
| | Subtotal | 334 | 281 | 84.1% | 18.3 | 14.7 | C |
| WB | Left Turn | 62 | 54 | 87.4% | 9.9 | 8.8 | A |
| | Through | 286 | 250 | 87.4% | 0.5 | 0.1 | A |
| | Right Turn | | | | | | |
| | Subtotal | 348 | 304 | 87.4% | 2.0 | 1.3 | A |
| Total | | 740 | 644 | 87.0% | 10.4 | 7.9 | B |

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

11111 Jefferson Project
Future Buildout Year + Project
PM Peak Hour

Intersection 42

Residential Driveway/Machado Rd

Side-street Stop

| Direction | Movement | Demand Volume (vph) | Served Volume (vph) | | Total Delay (sec/veh) | | |
|-----------|------------|------------------------|---------------------|---------|-----------------------|-----------|-----|
| | | | Average | Percent | Average | Std. Dev. | LOS |
| NB | Left Turn | 18 | 17 | 95.0% | 7.0 | 3.1 | A |
| | Through | | | | | | |
| | Right Turn | 20 | 20 | 99.0% | 3.4 | 2.1 | A |
| | Subtotal | 38 | 37 | 97.1% | 4.8 | 2.0 | A |
| SB | Left Turn | | | | | | |
| | Through | | | | | | |
| | Right Turn | 50 | 48 | 96.2% | 3.4 | 1.2 | A |
| | Subtotal | 50 | 48 | 96.2% | 3.4 | 1.2 | A |
| EB | Left Turn | 48 | 38 | 78.5% | 4.0 | 2.1 | A |
| | Through | 299 | 246 | 82.3% | 3.0 | 3.1 | A |
| | Right Turn | 21 | 19 | 88.6% | 1.3 | 0.4 | A |
| | Subtotal | 368 | 302 | 82.1% | 3.0 | 2.8 | A |
| WB | Left Turn | 32 | 27 | 83.1% | 14.5 | 33.5 | B |
| | Through | 243 | 210 | 86.3% | 2.6 | 7.6 | A |
| | Right Turn | 11 | 13 | 120.0% | 0.1 | 0.1 | A |
| | Subtotal | 286 | 250 | 87.2% | 3.3 | 8.6 | A |
| Total | | 757 | 652 | 86.1% | 3.4 | 3.6 | A |

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Shared | 175 | 25 | 2 | 25 | 8 | 25 | 16 | 0% | 0% |
| NB | Left Turn | 150 | 25 | 2 | 25 | 25 | 50 | 72 | 0% | 0% |
| | Through | 375 | 150 | 12 | 250 | 22 | 300 | 42 | 9% | 0% |
| | Through/Right | 375 | 150 | 9 | 275 | 20 | 325 | 30 | 0% | 0% |
| SB | Left Turn | 225 | 200 | 23 | 300 | 27 | 250 | 26 | 0% | 0% |
| | Through | 375 | 400 | 38 | 525 | 59 | 450 | 6 | 74% | 72% |
| | Right Turn | 50 | 25 | 2 | 25 | 6 | 50 | 5 | 0% | 0% |
| WB | Left/Through | 125 | 50 | 20 | 75 | 33 | 100 | 26 | 8% | 0% |
| | Right Turn | 200 | 25 | 22 | 75 | 63 | 100 | 65 | 0% | 2% |

Intersection 4

Jefferson Bl/Machado Rd

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 125 | 100 | 8 | 175 | 9 | 175 | 9 | 0% | 26% |
| | Through/Right | 125 | 75 | 7 | 125 | 14 | 150 | 18 | 0% | 5% |
| NB | Left Turn | 225 | 50 | 8 | 125 | 29 | 250 | 48 | 0% | 0% |
| | Through | 475 | 200 | 26 | 400 | 38 | 450 | 38 | 3% | 0% |
| | Through/Right | 475 | 200 | 27 | 400 | 41 | 475 | 35 | 0% | 0% |
| SB | Left Turn | 200 | 125 | 26 | 275 | 19 | 225 | 0 | 0% | 0% |
| | Through | 750 | 500 | 112 | 975 | 114 | 825 | 17 | 53% | 17% |
| | Right Turn | 375 | 250 | 43 | 525 | 25 | 400 | 0 | 1% | 0% |
| WB | Left Turn | 150 | 50 | 6 | 75 | 11 | 100 | 15 | 0% | 0% |
| | Through/Right | 150 | 75 | 4 | 100 | 13 | 125 | 18 | 0% | 0% |

Intersection 5

Sepulveda Bl/Janisann Av/Project Driveway

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left/Through | 500 | 25 | 5 | 75 | 10 | 100 | 19 | 6% | 0% |
| | Right Turn | 75 | 25 | 4 | 50 | 10 | 75 | 19 | 0% | 0% |
| NB | Left Turn | 125 | 25 | 5 | 75 | 12 | 100 | 23 | 0% | 0% |
| | Through | 125 | 75 | 7 | 125 | 15 | 150 | 30 | 2% | 2% |
| | Through/Right | 125 | 75 | 4 | 125 | 11 | 175 | 27 | 0% | 2% |
| SB | Left Turn | 125 | 50 | 11 | 125 | 19 | 125 | 1 | 0% | 0% |
| | Through | 375 | 450 | 25 | 525 | 58 | 475 | 8 | 68% | 58% |
| | Right Turn | 125 | 100 | 13 | 175 | 8 | 150 | 0 | 0% | 0% |
| WB | Left Turn | 200 | 50 | 4 | 100 | 6 | 100 | 17 | 0% | 0% |
| | Through/Right | 200 | 25 | 4 | 75 | 7 | 75 | 19 | 0% | 0% |

Intersection 6

Sepulveda Bl/Jefferson Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| NB | Through | 225 | 50 | 5 | 75 | 12 | 100 | 55 | 0% | 0% |
| | Right Turn | 225 | 25 | 4 | 50 | 27 | 100 | 71 | 0% | 0% |
| SB | Through | 175 | 275 | 3 | 275 | 7 | 300 | 8 | 0% | 86% |
| | Through/Right | 175 | 250 | 2 | 275 | 6 | 300 | 6 | 0% | 81% |
| WB | Left Turn | 475 | 450 | 31 | 600 | 30 | 525 | 7 | 46% | 23% |
| | Shared | 300 | 300 | 14 | 375 | 26 | 325 | 0 | 31% | 0% |
| 0 | | | | | | | | | | |

Intersection 7

Sepulveda Bl/Sawtelle Bl

Signal

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 175 | 175 | 8 | 250 | 15 | 200 | 0 | 25% | 9% |
| | Through | 200 | 275 | 2 | 300 | 6 | 300 | 11 | 60% | 66% |
| | Right Turn | 50 | 75 | 3 | 100 | 5 | 75 | 1 | 21% | 0% |
| NB | Left Turn | 275 | 125 | 17 | 225 | 30 | 250 | 1 | 0% | 0% |
| | Through | 250 | 350 | 16 | 375 | 19 | 375 | 15 | 49% | 50% |
| | Through/Right | 250 | 250 | 1 | 275 | 5 | 250 | 0 | 28% | 12% |
| SB | Left Turn | 175 | 125 | 6 | 225 | 9 | 200 | 0 | 2% | 0% |
| | Through | 225 | 275 | 6 | 325 | 8 | 325 | 17 | 39% | 26% |
| | Through/Right | 225 | 275 | 4 | 325 | 3 | 325 | 14 | 0% | 20% |
| WB | Left Turn | 100 | 75 | 6 | 150 | 6 | 125 | 0 | 11% | 0% |
| | Through | 325 | 150 | 26 | 250 | 52 | 300 | 77 | 21% | 2% |
| | Through/Right | 325 | 75 | 8 | 125 | 27 | 175 | 85 | 0% | 0% |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 36

Commercial Driveway/Machado Rd

11111 Jefferson Project
 Future Buildout Year + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Through | 200 | 75 | 20 | 175 | 43 | 200 | 30 | 0% | 3% |
| | Through/Right | 200 | 25 | 7 | 75 | 24 | 125 | 49 | 0% | 0% |
| NB | Right Turn | 225 | 50 | 5 | 75 | 12 | 100 | 23 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 3 | 50 | 5 | 75 | 12 | 1% | 0% |
| | Through | 125 | 25 | 0 | 25 | 0 | 25 | 10 | 0% | 0% |
| 0 | | | | | | | | | | |

SimTraffic Post-Processor
 Average Results from 10 Runs
 Queue Length
 Intersection 42

Residential Driveway/Machado Rd

11111 Jefferson Project
 Future Buildout Year + Project
 PM Peak Hour
 Side-street Stop

| Direction | Lane Group | Storage (ft) | Average Queue (ft) | | 95th Queue (ft) | | Maximum Queue (ft) | | Block Time | |
|-----------|---------------|--------------|--------------------|-----------|-----------------|-----------|--------------------|-----------|------------|----------|
| | | | Average | Std. Dev. | Average | Std. Dev. | Average | Std. Dev. | Pocket | Upstream |
| EB | Left Turn | 50 | 25 | 2 | 50 | 6 | 75 | 17 | 0% | 0% |
| | Through | 200 | 25 | 6 | 50 | 31 | 100 | 68 | 1% | 0% |
| | Through/Right | 200 | 25 | 1 | 25 | 6 | 25 | 16 | 0% | 0% |
| NB | Shared | 125 | 25 | 2 | 50 | 4 | 50 | 15 | 0% | 0% |
| | Right Turn | 125 | 50 | 4 | 75 | 6 | 75 | 14 | 0% | 0% |
| WB | Left Turn | 75 | 25 | 2 | 25 | 6 | 50 | 15 | 0% | 0% |
| | Through | 200 | 25 | 5 | 25 | 25 | 25 | 58 | 1% | 0% |
| | Through/Right | 200 | 25 | 1 | 25 | 5 | 25 | 52 | 0% | 0% |

Queues

8: Sepulveda Bl & Jefferson Bl/Playa St

11/24/2020



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|-------|-------|------|
| Lane Group Flow (vph) | 590 | 590 | 240 | 588 | 65 | 1634 | 124 | 1869 | 554 |
| v/c Ratio | 0.83 | 0.80 | 0.43 | 0.70 | 0.77 | 0.81 | 0.94 | 0.85 | 0.50 |
| Control Delay | 79.9 | 77.2 | 72.5 | 68.8 | 136.2 | 53.2 | 146.9 | 52.4 | 8.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 35.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 79.9 | 77.2 | 72.5 | 68.8 | 136.2 | 88.3 | 146.9 | 52.4 | 8.4 |
| Queue Length 50th (ft) | 408 | 402 | 142 | 227 | 82 | 645 | 156 | 751 | 135 |
| Queue Length 95th (ft) | 495 | 488 | 170 | 246 | #177 | #874 | #302 | #1015 | 290 |
| Internal Link Dist (ft) | | 689 | | 1373 | | 501 | | 940 | |
| Turn Bay Length (ft) | 285 | | 150 | | 100 | | 80 | | 165 |
| Base Capacity (vph) | 724 | 749 | 835 | 1226 | 84 | 2027 | 132 | 2196 | 1115 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 500 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.81 | 0.79 | 0.29 | 0.48 | 0.77 | 1.07 | 0.94 | 0.85 | 0.50 |

Intersection Summary

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

HCM 6th Signalized Intersection Summary

8: Sepulveda Bl & Jefferson Bl/Playa St

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | | ↔↔ | ↔↔↔ | | ↔ | ↔↔↔ | | ↔ | ↔↔↔ | ↔ |
| Traffic Volume (veh/h) | 700 | 387 | 34 | 228 | 351 | 208 | 62 | 1397 | 155 | 118 | 1776 | 526 |
| Future Volume (veh/h) | 700 | 387 | 34 | 228 | 351 | 208 | 62 | 1397 | 155 | 118 | 1776 | 526 |
| 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 | 664 | 510 | 0 | 240 | 369 | 0 | 65 | 1471 | 163 | 124 | 1869 | 554 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 756 | 794 | | 344 | 509 | | 387 | 1498 | 166 | 436 | 1786 | 891 |
| Arrive On Green | 0.21 | 0.21 | 0.00 | 0.10 | 0.10 | 0.00 | 0.22 | 0.32 | 0.32 | 0.24 | 0.35 | 0.35 |
| Sat Flow, veh/h | 3563 | 3741 | 0 | 3456 | 5274 | 0 | 1781 | 4665 | 517 | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h | 664 | 510 | 0 | 240 | 369 | 0 | 65 | 1073 | 561 | 124 | 1869 | 554 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1728 | 1702 | 0 | 1781 | 1702 | 1777 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s | 34.1 | 23.5 | 0.0 | 12.7 | 13.3 | 0.0 | 5.6 | 59.1 | 59.1 | 10.7 | 66.1 | 44.5 |
| Cycle Q Clear(g_c), s | 34.1 | 23.5 | 0.0 | 12.7 | 13.3 | 0.0 | 5.6 | 59.1 | 59.1 | 10.7 | 66.1 | 44.5 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.29 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 756 | 794 | | 344 | 509 | | 387 | 1093 | 571 | 436 | 1786 | 891 |
| V/C Ratio(X) | 0.88 | 0.64 | | 0.70 | 0.73 | | 0.17 | 0.98 | 0.98 | 0.28 | 1.05 | 0.62 |
| Avail Cap(c_a), veh/h | 848 | 891 | | 841 | 1243 | | 387 | 1093 | 571 | 436 | 1786 | 891 |
| 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(l) | 0.81 | 0.81 | 0.00 | 1.00 | 1.00 | 0.00 | 0.76 | 0.76 | 0.76 | 0.19 | 0.19 | 0.19 |
| Uniform Delay (d), s/veh | 72.1 | 67.9 | 0.0 | 82.3 | 82.6 | 0.0 | 60.1 | 63.6 | 63.6 | 57.9 | 61.4 | 27.9 |
| Incr Delay (d2), s/veh | 8.0 | 1.1 | 0.0 | 2.6 | 2.0 | 0.0 | 0.2 | 19.7 | 28.8 | 0.1 | 24.6 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 16.5 | 11.5 | 0.0 | 5.8 | 6.0 | 0.0 | 2.6 | 28.5 | 31.2 | 4.9 | 32.5 | 26.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 80.0 | 69.0 | 0.0 | 84.9 | 84.6 | 0.0 | 60.3 | 83.3 | 92.4 | 58.0 | 86.1 | 28.5 |
| LnGrp LOS | F | E | | F | F | | E | F | F | E | F | C |
| Approach Vol, veh/h | | 1174 | A | | 609 | A | | 1699 | | | 2547 | |
| Approach Delay, s/veh | | 75.2 | | | 84.7 | | | 85.5 | | | 72.2 | |
| Approach LOS | | E | | | F | | | F | | | E | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 46.4 | 72.3 | | 46.4 | 51.6 | 67.1 | | 23.8 | | | | |
| Change Period (Y+Rc), s | 5.4 | 6.2 | | 6.3 | * 5.4 | 6.4 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 66.1 | | 45.0 | * 14 | 60.7 | | 46.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.6 | 68.1 | | 36.1 | 12.7 | 61.1 | | 15.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 4.0 | 0.0 | 0.0 | | 3.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 77.8 |
| HCM 6th LOS | E |

Notes

User approved volume balancing among the lanes for turning movement.

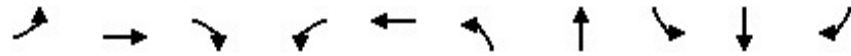
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Queues

9: Slauson Ave & Jefferson BI

11/24/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 114 | 1059 | 304 | 54 | 988 | 406 | 135 | 35 | 316 | 304 |
| v/c Ratio | 0.59 | 0.57 | 0.31 | 0.36 | 0.62 | 0.67 | 0.19 | 0.17 | 0.64 | 0.57 |
| Control Delay | 70.1 | 34.6 | 8.4 | 69.3 | 39.5 | 55.8 | 27.6 | 61.7 | 48.8 | 23.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 70.1 | 34.6 | 8.4 | 69.3 | 39.5 | 55.8 | 27.6 | 61.7 | 48.8 | 23.9 |
| Queue Length 50th (ft) | 84 | 242 | 54 | 40 | 233 | 150 | 70 | 24 | 214 | 93 |
| Queue Length 95th (ft) | 190 | 397 | 141 | 108 | 394 | 275 | 146 | 77 | 409 | 236 |
| Internal Link Dist (ft) | | 405 | | | 689 | | 492 | | 578 | |
| Turn Bay Length (ft) | 50 | | 75 | 100 | | | | 130 | | 115 |
| Base Capacity (vph) | 336 | 2638 | 1136 | 198 | 2233 | 979 | 1038 | 244 | 789 | 762 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.40 | 0.27 | 0.27 | 0.44 | 0.41 | 0.13 | 0.14 | 0.40 | 0.40 |

Intersection Summary

HCM 6th Signalized Intersection Summary

9: Slauson Ave & Jefferson BI

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | | ↘↗ | ↑ | | ↘ | ↑ | ↗ |
| Traffic Volume (veh/h) | 108 | 1006 | 289 | 51 | 904 | 34 | 386 | 106 | 22 | 33 | 300 | 289 |
| Future Volume (veh/h) | 108 | 1006 | 289 | 51 | 904 | 34 | 386 | 106 | 22 | 33 | 300 | 289 |
| 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 | 114 | 1059 | 304 | 54 | 952 | 36 | 406 | 112 | 0 | 35 | 316 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 142 | 2033 | 849 | 120 | 1946 | 73 | 515 | 562 | | 151 | 423 | |
| Arrive On Green | 0.08 | 0.40 | 0.39 | 0.07 | 0.39 | 0.36 | 0.15 | 0.30 | 0.00 | 0.09 | 0.23 | 0.00 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5049 | 191 | 3456 | 1870 | 0 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 114 | 1059 | 304 | 54 | 641 | 347 | 406 | 112 | 0 | 35 | 316 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1836 | 1728 | 1870 | 0 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 6.7 | 16.9 | 11.8 | 3.1 | 15.3 | 15.4 | 12.2 | 4.8 | 0.0 | 2.0 | 16.9 | 0.0 |
| Cycle Q Clear(g_c), s | 6.7 | 16.9 | 11.8 | 3.1 | 15.3 | 15.4 | 12.2 | 4.8 | 0.0 | 2.0 | 16.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.10 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 142 | 2033 | 849 | 120 | 1312 | 708 | 515 | 562 | | 151 | 423 | |
| V/C Ratio(X) | 0.80 | 0.52 | 0.36 | 0.45 | 0.49 | 0.49 | 0.79 | 0.20 | | 0.23 | 0.75 | |
| Avail Cap(c_a), veh/h | 365 | 2856 | 1105 | 216 | 1618 | 873 | 1063 | 1151 | | 266 | 854 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 48.5 | 24.5 | 14.3 | 48.1 | 25.0 | 25.1 | 44.0 | 27.9 | 0.0 | 45.8 | 38.6 | 0.0 |
| Incr Delay (d2), s/veh | 3.9 | 0.4 | 0.5 | 1.0 | 0.6 | 1.1 | 1.0 | 0.4 | 0.0 | 0.3 | 5.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.1 | 6.8 | 4.2 | 1.4 | 6.2 | 6.8 | 5.2 | 2.2 | 0.0 | 0.9 | 8.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.5 | 25.0 | 14.8 | 49.1 | 25.6 | 26.2 | 45.0 | 28.3 | 0.0 | 46.1 | 44.1 | 0.0 |
| LnGrp LOS | D | C | B | D | C | C | D | C | | D | D | |
| Approach Vol, veh/h | | 1477 | | | 1042 | | | 518 | A | | 351 | A |
| Approach Delay, s/veh | | 25.0 | | | 27.0 | | | 41.4 | | | 44.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.6 | 45.3 | 20.0 | 29.4 | 11.2 | 46.7 | 13.1 | 36.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.3 | * 5.1 | * 6.7 | 4.0 | 6.3 | * 4.7 | 6.7 | | | | |
| Max Green Setting (Gmax), s | 22.0 | 48.7 | * 32 | * 47 | 13.0 | 57.7 | * 15 | 63.3 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.7 | 17.4 | 14.2 | 18.9 | 5.1 | 18.9 | 4.0 | 6.8 | | | | |
| Green Ext Time (p_c), s | 0.1 | 14.2 | 0.7 | 3.8 | 0.0 | 21.5 | 0.0 | 1.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 30.1 |
| HCM 6th LOS | C |

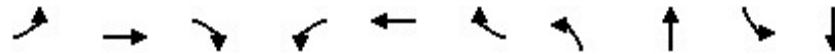
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

10: Sepulveda Blvd & Slauson Ave

11/24/2020

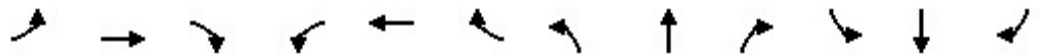


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 55 | 429 | 276 | 217 | 304 | 297 | 167 | 1476 | 339 | 1741 |
| v/c Ratio | 0.32 | 0.66 | 0.54 | 0.68 | 0.42 | 0.49 | 0.55 | 0.64 | 0.73 | 0.68 |
| Control Delay | 56.1 | 50.2 | 15.5 | 64.0 | 43.4 | 13.5 | 59.6 | 27.9 | 59.8 | 25.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| Total Delay | 56.1 | 50.2 | 15.5 | 64.0 | 43.4 | 13.5 | 59.6 | 27.9 | 59.8 | 26.2 |
| Queue Length 50th (ft) | 40 | 168 | 71 | 85 | 115 | 77 | 64 | 302 | 130 | 343 |
| Queue Length 95th (ft) | 83 | 192 | 103 | 125 | 135 | 106 | 101 | 446 | 184 | 523 |
| Internal Link Dist (ft) | | 492 | | | 948 | | | 736 | | 501 |
| Turn Bay Length (ft) | 85 | | 50 | 220 | | | 200 | | 265 | |
| Base Capacity (vph) | 171 | 1055 | 514 | 320 | 1032 | 613 | 314 | 2293 | 473 | 2547 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 412 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.41 | 0.54 | 0.68 | 0.29 | 0.48 | 0.53 | 0.64 | 0.72 | 0.82 |

Intersection Summary

HCM 6th Signalized Intersection Summary
 10: Sepulveda Blvd & Slauson Ave

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 52 | 408 | 262 | 206 | 289 | 282 | 159 | 1323 | 79 | 322 | 1629 | 25 |
| Future Volume (veh/h) | 52 | 408 | 262 | 206 | 289 | 282 | 159 | 1323 | 79 | 322 | 1629 | 25 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.95 | 1.00 | | 0.93 | 1.00 | | 0.94 | 1.00 | | 0.94 |
| 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 | 55 | 429 | 276 | 217 | 304 | 297 | 167 | 1393 | 83 | 339 | 1715 | 26 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 146 | 892 | 507 | 305 | 953 | 704 | 299 | 1556 | 93 | 678 | 2227 | 34 |
| Arrive On Green | 0.08 | 0.25 | 0.25 | 0.09 | 0.27 | 0.27 | 0.09 | 0.32 | 0.30 | 0.20 | 0.43 | 0.41 |
| Sat Flow, veh/h | 1781 | 3554 | 1500 | 3456 | 3554 | 1480 | 3456 | 4906 | 292 | 3456 | 5176 | 78 |
| Grp Volume(v), veh/h | 55 | 429 | 276 | 217 | 304 | 297 | 167 | 967 | 509 | 339 | 1128 | 613 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1500 | 1728 | 1777 | 1480 | 1728 | 1702 | 1794 | 1728 | 1702 | 1850 |
| Q Serve(g_s), s | 3.5 | 12.3 | 12.2 | 7.3 | 8.2 | 3.1 | 5.6 | 32.5 | 32.5 | 10.5 | 33.9 | 33.9 |
| Cycle Q Clear(g_c), s | 3.5 | 12.3 | 12.2 | 7.3 | 8.2 | 3.1 | 5.6 | 32.5 | 32.5 | 10.5 | 33.9 | 33.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 146 | 892 | 507 | 305 | 953 | 704 | 299 | 1080 | 569 | 678 | 1464 | 796 |
| V/C Ratio(X) | 0.38 | 0.48 | 0.54 | 0.71 | 0.32 | 0.42 | 0.56 | 0.90 | 0.90 | 0.50 | 0.77 | 0.77 |
| Avail Cap(c_a), veh/h | 172 | 1060 | 578 | 311 | 1036 | 739 | 317 | 1174 | 619 | 678 | 1464 | 796 |
| 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(l) | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.49 | 0.49 | 0.49 |
| Uniform Delay (d), s/veh | 52.2 | 38.3 | 16.1 | 53.2 | 35.2 | 9.2 | 52.6 | 39.1 | 39.2 | 43.0 | 29.1 | 29.2 |
| Incr Delay (d2), s/veh | 0.5 | 0.1 | 0.3 | 6.2 | 0.1 | 0.1 | 1.0 | 11.5 | 19.2 | 0.1 | 2.0 | 3.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 5.4 | 4.2 | 3.4 | 3.6 | 3.1 | 2.5 | 15.1 | 17.2 | 4.5 | 14.0 | 15.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.7 | 38.4 | 16.4 | 59.4 | 35.2 | 9.3 | 53.6 | 50.5 | 58.4 | 43.1 | 31.1 | 32.8 |
| LnGrp LOS | D | D | B | E | D | A | D | D | E | D | C | C |
| Approach Vol, veh/h | | 760 | | | 818 | | | 1643 | | | 2080 | |
| Approach Delay, s/veh | | 31.4 | | | 32.2 | | | 53.3 | | | 33.6 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.4 | 55.6 | 15.9 | 34.1 | 27.9 | 42.1 | 13.8 | 36.2 | | | | |
| Change Period (Y+Rc), s | 5.4 | * 6 | * 5.9 | * 5.9 | 6.0 | * 5.8 | * 4.6 | * 5.9 | | | | |
| Max Green Setting (Gmax), s | 9.6 | * 44 | * 10 | * 34 | 14.4 | * 40 | * 11 | * 33 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.6 | 35.9 | 9.3 | 14.3 | 12.5 | 34.5 | 5.5 | 10.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.8 | 0.0 | 0.8 | 0.0 | 1.8 | 0.0 | 0.6 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 39.2 |
| HCM 6th LOS | D |

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

11: Sepulveda Bl & Braddock Dr

11/24/2020



| Lane Group | EBT | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 216 | 342 | 54 | 1086 | 136 | 41 | 1579 | 88 |
| v/c Ratio | 0.48 | 0.91 | 0.46 | 0.47 | 0.13 | 0.16 | 0.68 | 0.08 |
| Control Delay | 36.0 | 69.6 | 25.3 | 8.8 | 3.0 | 11.4 | 15.7 | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.0 | 69.6 | 25.3 | 8.8 | 3.0 | 11.4 | 15.7 | 6.4 |
| Queue Length 50th (ft) | 126 | 247 | 20 | 205 | 18 | 12 | 386 | 16 |
| Queue Length 95th (ft) | 195 | #392 | m64 | 29 | m0 | 32 | 502 | 39 |
| Internal Link Dist (ft) | 208 | 149 | | 2750 | | | 398 | |
| Turn Bay Length (ft) | | | 60 | | 60 | 60 | | 60 |
| Base Capacity (vph) | 514 | 427 | 117 | 2323 | 1061 | 259 | 2323 | 1048 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.80 | 0.46 | 0.47 | 0.13 | 0.16 | 0.68 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

11: Sepulveda Bl & Braddock Dr

11/24/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|-------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | ↗ | ↗ | ↕ | ↗ |
| Traffic Volume (veh/h) | 32 | 118 | 55 | 101 | 179 | 46 | 51 | 1032 | 129 | 39 | 1500 | 84 |
| Future Volume (veh/h) | 32 | 118 | 55 | 101 | 179 | 46 | 51 | 1032 | 129 | 39 | 1500 | 84 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 34 | 124 | 58 | 106 | 188 | 48 | 54 | 1086 | 136 | 41 | 1579 | 88 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 77 | 259 | 111 | 147 | 222 | 54 | 184 | 2400 | 1070 | 303 | 2400 | 1070 |
| Arrive On Green | 0.26 | 0.26 | 0.25 | 0.26 | 0.26 | 0.25 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| Sat Flow, veh/h | 163 | 1004 | 428 | 416 | 862 | 209 | 298 | 3554 | 1585 | 457 | 3554 | 1585 |
| Grp Volume(v), veh/h | 216 | 0 | 0 | 342 | 0 | 0 | 54 | 1086 | 136 | 41 | 1579 | 88 |
| Grp Sat Flow(s),veh/h/ln | 1596 | 0 | 0 | 1487 | 0 | 0 | 298 | 1777 | 1585 | 457 | 1777 | 1585 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 14.0 | 0.0 | 0.0 | 15.5 | 17.2 | 3.7 | 5.5 | 31.2 | 2.3 |
| Cycle Q Clear(g_c), s | 12.9 | 0.0 | 0.0 | 26.9 | 0.0 | 0.0 | 46.7 | 17.2 | 3.7 | 22.7 | 31.2 | 2.3 |
| Prop In Lane | 0.16 | | 0.27 | 0.31 | | 0.14 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 447 | 0 | 0 | 423 | 0 | 0 | 184 | 2400 | 1070 | 303 | 2400 | 1070 |
| V/C Ratio(X) | 0.48 | 0.00 | 0.00 | 0.81 | 0.00 | 0.00 | 0.29 | 0.45 | 0.13 | 0.14 | 0.66 | 0.08 |
| Avail Cap(c_a), veh/h | 542 | 0 | 0 | 515 | 0 | 0 | 184 | 2400 | 1070 | 303 | 2400 | 1070 |
| 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(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.8 | 0.0 | 0.0 | 43.3 | 0.0 | 0.0 | 25.0 | 9.1 | 6.9 | 14.4 | 11.4 | 6.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 4.0 | 0.6 | 0.2 | 0.4 | 0.9 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.4 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 1.3 | 6.0 | 1.2 | 0.6 | 10.9 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 38.1 | 0.0 | 0.0 | 49.7 | 0.0 | 0.0 | 29.1 | 9.7 | 7.2 | 14.8 | 12.3 | 6.8 |
| LnGrp LOS | D | A | A | D | A | A | C | A | A | B | B | A |
| Approach Vol, veh/h | | 216 | | | 342 | | | 1276 | | | | 1708 |
| Approach Delay, s/veh | | 38.1 | | | 49.7 | | | 10.3 | | | | 12.1 |
| Approach LOS | | D | | | D | | | B | | | | B |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 85.0 | | 35.0 | | 85.0 | | 35.0 | | | | |
| Change Period (Y+Rc), s | | 5.7 | | * 5.2 | | 5.7 | | * 5.2 | | | | |
| Max Green Setting (Gmax), s | | 72.3 | | * 37 | | 72.3 | | * 37 | | | | |
| Max Q Clear Time (g_c+I1), s | | 48.7 | | 14.9 | | 33.2 | | 28.9 | | | | |
| Green Ext Time (p_c), s | | 15.8 | | 0.8 | | 29.6 | | 0.9 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.6 |
| HCM 6th LOS | B |

Notes

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