Appendix 14

Transportation

Appendix 14.1

Transportation Assessment

TRANSPORTATION ASSESSMENT FOR THE MIRMAN SCHOOL FOR GIFTED CHILDREN

LOS ANGELES, CALIFORNIA

JULY 2020

PREPARED FOR

MIRMAN SCHOOL FOR GIFTED CHILDREN

PREPARED BY

Gibson transportation consulting, inc.

TRANSPORTATION ASSESSMENT
FOR THE
MIRMAN SCHOOL FOR GIFTED CHILDREN

LOS ANGELES, CALIFORNIA

July 2020

Prepared for:

MIRMAN SCHOOL FOR GIFTED CHILDREN

Prepared by:

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

Ref: J1374

Table of Contents

1. Introduction 1
   - Project Description 1
   - Project Location 1
   - Study Scope 2
   - Additional Traffic Analyses 3
   - Organization of Report 4

2. Vehicle Miles Traveled Analysis 7
   - VMT Analysis Methodology 7
   - Project Daily Vehicle Trips 7

3. Level of Service Analysis 9
   - Level of Service Methodology 9
   - Impact Criteria and Significance Thresholds 12

4. Existing Conditions 13
   - Study Area 13
   - Existing Transit System 17
   - Bicycle and Pedestrian Network 17
   - Existing Traffic Volumes and Levels of Service 18

5. Future without Project Conditions 27
   - CEQA Guidelines Regarding Future Traffic Conditions 27
   - Ambient Traffic Growth 28
   - Related Projects 28
   - Future Improvements 31
   - Future without Project Intersection Levels of Service 32

6. Project Traffic 40
   - Project Description 40
   - Project Trip Generation 40
   - Project Trip Distribution 41
   - Project Trip Assignment 41

7. Existing with Project Conditions 47
   - Existing with Project Traffic Volumes 47
   - Existing with Project Intersection Levels of Service 47

8. Future with Project Conditions 51
   - Future with Project Traffic Volumes 51
   - Future with Project Intersection Levels of Service 51

9. Unsignalized Intersection Analysis 55
   - Intersection Levels of Service 55
   - Signal Warrant Analysis 55

Table of Contents, cont.

10. Congestion Management Program Analysis 60
    TIA Guidelines 61
    Arterial Monitoring Station Analysis 62
    Freeway Segment Analysis 63
    Regional Transit Impact Analysis 64

11. Project Site Access and Circulation 65
    Site Access and Circulation 65

12. Summary and Conclusions 67

References

Appendix A: Memorandum of Understanding
Appendix B: VMT Calculator Worksheets
Appendix C: Intersection Lane Configurations
Appendix D: Traffic Counts
Appendix E: Level of Service Worksheets
Appendix F: Student Zip Code Data
Appendix G: Signal Warrant Worksheets
Appendix H: Caltrans Analysis

List of Figures

NO.

1 Project Site Plan 5
2 Study Area 20
3 Existing Transit Service 21
4 Existing Conditions (Year 2019) Peak Hour Traffic Volumes 22
5 Locations of Related Projects 33
6 Related Project-Only Peak Hour Traffic Volumes 34
7 Future without Project Conditions (Year 2025) Peak Hour Traffic Volumes 36
8 Trip Distribution 42
9 Project-Only Peak Hour Traffic Volumes 44
10 Existing with Project Conditions (Year 2019) Peak Hour Traffic Volumes 48
11 Future with Project Conditions (Year 2025) Peak Hour Traffic Volumes 52
12 Student Pick-Up / Drop-Off Circulation 66

List of Tables

NO.

1 Level of Service Definitions for Intersections 6
2 Study Intersections 24
3 Existing Transit Service 25
4 Existing Conditions (Year 2019) Significant Impact Analysis 26
5 Related Projects 38
6 Future without Project Conditions (Year 2025) Significant Impact Analysis 39
7 Project Trip Generation Estimates 46
8 Existing with Project Conditions (Year 2019) Significant Impact Analysis 50
9 Future with Project Conditions (Year 2025) Significant Impact Analysis 54
10 Existing with Project Conditions (Year 2019) Unsignalized Intersection Peak Hour Levels of Service 58
11 Future with Project Conditions (Year 2025) Unsignalized Intersection Peak Hour Levels of Service 59

Chapter 1
Introduction

This study (Study) presents the transportation assessment for the proposed Mirman School for Gifted Children (the School). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

The School is a private elementary and middle school (grades K-8, ages 5-14) for highly gifted children that has been in operation for over 50 years. The School operates under a Conditional Use Permit (CUP) that currently allows a maximum enrollment of 330 full-time students. The School is seeking to increase enrollment to a maximum of 430 students (Project). The enrollment increases will be accompanied by new building construction which will include classrooms, lab space, support facilities (offices, library, gathering space, etc.), and athletic facilities. Student enrollment would be increased over six years, with maximum enrollment by Year 2025.

The conceptual Project site plan is shown in Figure 1.

PROJECT LOCATION

The School is located at 16180 Mulholland Drive within the *Mulholland Scenic Parkway Specific Plan* (Los Angeles Department of City Planning [LADCP], May 13, 1992) area of the City of Los Angeles (City). Access to the School is provided via three driveways located along Mulholland Drive, with primary access via the westerly driveway (Main Driveway). Access to the campus is primarily provided via Interstate 405 (I-405) and Sepulveda Boulevard.

The School is generally bounded by Mulholland Drive to the north, Berkeley Hall School to the southeast, and Westland School and a parking lot owned by the Bel Air Presbyterian Church to the west. Other nearby uses include various educational and church uses, as well as single-family residences. The Project Site is located 0.75 miles west of I-405 and 2.50 miles south of US 101.

STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified and agreed to in a Memorandum of Understanding (MOU), a copy of which is provided in Appendix A.

State of California Senate Bill No. 743

State of California Senate Bill 743 (Steinberg, 2013) (SB 743), made effective in January 2014, required the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifts from driver delay (level of service [LOS]) to vehicle miles traveled (VMT) in order to reduce of greenhouse gas emissions, create multimodal networks, and promote mixed-use developments.

To adapt to SB 743, the Los Angeles City Planning Commission, on February 28, 2019, recommended the approval of revised guidelines to include new transportation analysis screening procedures and thresholds, subsequently approved by the Los Angeles City Council on July 30, 2019. LADOT's *Transportation Assessment Guidelines* (July 2019) (the TAG) defines the methodology of analyzing a project's transportation impacts in accordance with SB 743.

Per Section 1.3 of the TAG:

> *The City requires the preparation and submission of a transportation assessment for Development Projects or Transportation Projects that meet the following criteria:*

- *If the Development Project is estimated to generate a net increase of 250 or more daily vehicle trips and requires discretionary action, a transportation assessment for a Development Project is required.*
- *If a Transportation Project is likely to either: (1) induce additional vehicle miles traveled by increasing vehicle capacity; or (2) reduce roadway through-lane capacity on a street that exceeds 750 vehicles per hour per lane for at least two (2) consecutive hours in a 24-hour period after the project is completed, a transportation assessment is generally required.*
- *A transportation assessment is required by City ordinance or regulation.*

Application of *City of Los Angeles VMT Calculator Version 1.2* (LADOT, November 2019) (the VMT Calculator) showed that the addition of 100 students to the School campus would add fewer than 250 vehicle trips per day to the street system. The Project is not proposing or required to make any additional improvements to existing roadways that would induce VMT or reduce roadway through-lane capacity on a street. A transportation assessment for the Project is also not required by any City ordinance or regulation. Therefore, the Project would not meet the screening criteria for either CEQA or non-CEQA evaluation within the TAG requiring assessment.

ADDITIONAL TRAFFIC ANALYSES

To provide an assessment of the Project's potential LOS impacts, for informational purposes, this Study also includes an analysis of Project impacts based on the formerly required methodologies and thresholds in *Transportation Impact Study Guidelines* (LADOT, December 2016) (the 2016 guidelines). These analyses are provided in Chapters 3 through 9.

A review was also conducted of various other features and conditions related to the Project, including a Congestion Management Program analysis (Chapter 10) and a review of Project access and circulation (Chapter 11). A detailed California Department of Transportation (Caltrans) analysis was also prepared for the Project for informational purposes and is provided in the appendices.

ORGANIZATION OF REPORT

This report is divided into 12 chapters, including this introduction. Chapter 2 presents the VMT analysis of the Project. Chapter 3 describes the level of service analysis methodology. Chapter 4 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 5 forecasts the Future without Project Conditions. Chapter 6 describes the procedure used to forecast Project traffic volumes and distribution through the Study Area. Chapter 7 presents the intersection operating conditions associated with the Project on top of Existing Conditions. Chapter 8 presents the intersection operating conditions associated with the Project on top of Future without Project Conditions (Year 2025). Chapter 9 presents the unsignalized intersection operating conditions and the signal warrant analysis. Chapter 10 presents the regional CMP analysis. Chapter 11 describes site access and internal circulation. Chapter 12 summarizes the analyses and Study conclusions. The Appendices contain supporting documentation and additional details of the technical analyses, as well as the additional analysis described above.



Source: Johnson Favaro Architecture & Urban Design. December, 2019.

PROJECT SITE PLAN

FIGURE 1

TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS

Level of Service	**Signalized V/C Ratio** [a]	**Delay** [b]	**Definition**
A	0.000 - 0.600	0.0 - 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	10.1 - 20.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	20.1 - 35.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	35.1 - 55.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	55.1 - 80.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	> 80.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Notes

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

[b] *Highway Capacity Manual, 6th Edition* , Transportation Research Board, 2016.

Chapter 2
Vehicle Miles Traveled Analysis

As detailed in Chapter 1, the Project generates fewer trips per day than the City threshold for either CEQA or non-CEQA evaluation as identified in the TAG. However, this chapter presents the VMT conclusions in more detail for informational purposes.

VMT ANALYSIS METHODOLOGY

The VMT Calculator is designed to estimate project-specific daily vehicle trips, daily household VMT per capita, and daily work VMT per employee for developments within City limits. The VMT Calculator does not contain a land use type for Private School (K-8); therefore, based on discussions with LADOT, the Private School (K-12) land use type was used.

PROJECT DAILY VEHICLE TRIPS

The VMT Calculator was modeled with the Project's 100-student increase in student enrollment using the Private School (K-12) land use type to calculate the daily vehicle trips for the Project. The VMT analysis results and the detailed output from the VMT Calculator are provided in Appendix B.

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

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

As shown in Appendix B, the Project is expected to generate 234 daily vehicle trips per the VMT Calculator. Thus, as the Project would generate fewer than 250 daily vehicle trips, the Project would not result in any significant VMT-related impacts. It should be noted that the VMT Calculator is not applicable in determining the household VMT per capita and work VMT per employee for projects that do not meet the above screening criteria.

Chapter 3
Level of Service Analysis

The Project was analyzed, for informational purposes, based on the LOS analysis impact criteria in the 2016 guidelines.

LEVEL OF SERVICE METHODOLOGY

For informational purposes, the Study analyzed the potential Project-generated transportation impacts on the street system in the vicinity of the Project Site (the Study Area) as compared to existing conditions and projected future conditions at the time the Project is expected to be completed (Year 2025). Potential intersection impacts were evaluated for typical weekday commuter/school morning (7:00 AM to 10:00 AM), school afternoon (2:00 PM to 4:00 PM), and commuter afternoon (4:00 PM to 6:00 PM) peak periods. The school afternoon peak hour is based on the scheduled student dismissal. Consistent with *Transportation Impact Study Guidelines*, the following traffic conditions were developed and analyzed as part of this Study:

- Existing Conditions (Year 2019) – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts were collected in October 2016 and May/June 2017. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was also collected in August 2019 and is provided in Appendix C. The traffic count worksheets are available in Appendix D.

- Existing with Project Conditions (Year 2019) – This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built under existing conditions. In this scenario, the Project-generated traffic is added to the Existing Conditions.

- Future without Project Conditions (Year 2025) – This analysis condition projects the potential intersection operating conditions that could be expected as a result of regional

growth and related project traffic in the Study Area by Year 2025. This analysis provides the conditions by which the Project impacts are evaluated in the future at full buildout.

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

Signalized Intersection Analysis Methodology

Intersection capacity has been analyzed using the "Critical Movement Analysis (CMA) – Planning" (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980) methodology required by the City. The CMA methodology was implemented using LADOT's CalcaDB Lite spreadsheet application to analyze intersection operating conditions. The methodology calculates the volume-to-capacity (V/C) ratio, which is used to determine the intersection level of service (LOS) according to the LOS definitions provided in Table 1. Intersection capacity calculation worksheets for each scenario are available in Appendix E.

The Automated Traffic Surveillance and Control (ATSAC) system represents an advanced system in computer control of traffic signals. It was first put into operation in June 1984 in the Coliseum area of the City to anticipate the expected increase in traffic due to the Summer Olympic Games and has since been expanded to other parts of the City. The advantages of ATSAC-controlled traffic signals are substantial, including real-time adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by incidents, the ability to implement special purpose short-term signal timing changes in response to incidents, and the ability to identify signal equipment malfunctions quickly. LADOT estimates that implementation of this system improves intersection capacity by an average of 7%.

In addition to ATSAC, the Adaptive Traffic Control System (ATCS) has been implemented in the City. ATCS is a computer-based traffic signal control program that provides fully responsive traffic signal control based on real-time traffic conditions. It automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal network such that the number of stops and the amount of delay is minimized along with improved traffic signal

coordination throughout the network. LADOT estimates that implementation of this system improves intersection capacity by an additional 3% over those operating under the ATSAC system alone.

Each of the signalized study intersections is equipped with both ATSAC and ATCS. In accordance with standard LADOT procedures, a capacity increase of 10% (0.10 V/C adjustment) was applied to each intersection to reflect the benefits of ATSAC and ATCS control. The capacity increases are applied within the CalcaDB Lite software and, therefore, are inherent in the analysis results.

Unsignalized Intersection Analysis Methodology

Based on *Transportation Impact Study Guidelines*, the unsignalized intersections were evaluated to determine the need for the installation of a traffic signal. The unsignalized intersections were analyzed using *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology to determine the overall intersection delay. The HCM methodology calculates the average delay, in seconds, of a vehicle passing through the intersection in any direction. The average delay is used to determine the intersection LOS according to the LOS definitions provided in Table 1. The analysis worksheets for each scenario are provided in Appendix E.

Pursuant to *Transportation Impact Study Guidelines*, if, based on the estimated delay, the resultant LOS is E or F in the Future with Project Conditions, the intersection should be evaluated for the potential installation of a new traffic signal through a traffic signal warrant analysis. It should be noted that the determination that an unsignalized intersection meets the criteria of a traffic signal warrant does not in itself require the installation of a signal. Rather, the decision on whether a traffic signal should be installed is made by the governing jurisdictions taking into consideration other factors such as distance to adjacent signalized intersections and interruption to traffic flow along the major street.

IMPACT CRITERIA AND SIGNIFICANCE THRESHOLDS

The significance of the potential impacts of Project-generated traffic at the signalized study intersections was determined using criteria identified in *Transportation Impact Study Guidelines*. LADOT guidelines indicate that a project is considered to have a significant transportation impact on a signalized intersection if the increase in the V/C ratio attributable to the project exceeds a specific threshold depending on the final intersection LOS. LADOT has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the V/C ratio of the intersection increases:

Intersection Conditions with Project Traffic		**Significant Impact Threshold for Project-related Increase in V/C Ratio**
LOS	**V/C**	
C	0.701 – 0.800	Equal to or greater than 0.04
D	0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01

Source: City of Los Angeles.

The relative impact of the added traffic volumes to be generated by the Project was evaluated based on analysis of existing and future operating conditions at the study intersections, with and without the Project.

Chapter 4
Existing Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the Project Study Area. The Existing Conditions analysis includes an assessment of the existing freeway and street systems and an analysis of traffic volumes, current operating conditions, and existing public transit service, as well as pedestrian and bicycle circulation.

STUDY AREA

The Project's Study Area, shown in Figure 2, is generally bounded by US 101 to the north, Sepulveda Boulevard and I-405 to the east and south, and Hayvenhurst Avenue to the west. A transportation impact study area generally comprises those intersections with the greatest potential to experience significant transportation impacts due to the project as defined by the City, including intersections that are:

1. Immediately adjacent or in close proximity to the project site
2. In the vicinity of the project site that are documented to have current or projected future adverse operational issues
3. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections)

This Study Area was established in consultation with the City, based on the above criteria, as well as peak hour Project trip generation, the anticipated distribution of Project traffic, and the existing intersections/corridor operations. It is comprised of those intersections with the greatest potential to experience significant transportation impacts due to the Project.

A total of 12 signalized and four unsignalized intersections were identified during the MOU process for detailed analysis of the above conditions, as identified in Table 2. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and the 16 study intersections. The existing lane configurations at the analyzed intersections are provided in Appendix C.

The existing street system in the Study Area consists of a regional roadway system including freeways, primary and secondary arterials, and collector and local streets. These facilities provide regional, sub-regional, or local access and circulation within the Study Area. Typically, the speed limits range between 25 and 40 miles per hour (mph) on the streets and between 55 and 65 mph on freeways.

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

The Mobility Plan has revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The available facilities in the Study Area are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph
    - Avenues pass through both residential and commercial areas and include three categories:

- Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph
- Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph
- Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph

- Collector Streets are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local streets include two categories:
  - Continuous local streets connect to other streets at both ends
  - Non-continuous local streets lead to a dead-end

Primary regional access to the Project Site is provided by I-405 and US 101. The major arterials providing regional and sub-regional access to the Project include Sepulveda Boulevard and Mulholland Drive. The following is a brief description of the major roadways in the Study Area and their designations in the Mobility Plan:

Freeways

- I-405 – I-405 generally runs in the north-south direction and is located approximately 0.75 miles east of the Project Site. In the vicinity of the Study Area, I-405 provides five to six travel lanes, as well as a high occupancy vehicle lane, in each direction. Primary access to and from I-405 is available via interchanges at Skirball Center Drive and Sepulveda Boulevard.
- US 101 – US 101 generally runs in the east-west direction and is located approximately 2.50 miles north of the Project Site. In the vicinity of the Study Area, US 101 provides five to six travel lanes in each direction. Primary access to and from US 101 is available via an interchange at Hayvenhurst Avenue.

Roadways

- Hayvenhurst Avenue – Hayvenhurst Avenue is a designated Avenue III. It travels in the north-south direction and provides two 11- to 18-foot travel lanes, one lane in each direction. Parking is generally unavailable on either side of the street within the Study Area.

- Sepulveda Boulevard – Sepulveda Boulevard is a designated Avenue III. It travels in the north-south direction and provides four 10- to 12-foot travel lanes, two lanes in each direction, with left-turn lanes at major intersections. Parking is generally unavailable on either side of the street within the Study Area.

- Calneva Drive – Calneva Drive is a designated Collector. It travels in the north-south direction and provides two 11- to 18-foot travel lanes, with one lane in each direction. Parking is generally available on both sides of the street within the Study Area.

- Mulholland Drive – Mulholland Drive is a designated Scenic Parkway. It travels in the east-west direction and provides two to three 11- to 12-foot travel lanes, one to two in each direction, Parking is generally unavailable on either side of the street within the Study Area.

- Skirball Center Drive – Skirball Center Drive is a designated Local Street that travels in the north-south direction. It provides two 12-foot travel lanes, one in each direction, with left-turn lanes at intersections. Parking is generally unavailable on either side of the street within the Study Area.

- Walt Disney Drive – Walt Disney Drive is unidentified in the Mobility Plan. It travels in the east-west direction and provides two 11- to 16-foot travel lanes, one lane in each direction. Public parking is generally unavailable on either side of the street within the Study Area.

- Valley Vista Drive – Valley Vista Drive is a designated Avenue III. It travels in the north-south direction and provides two 11- to 20-foot travel lanes, one lane in each direction. Parking is generally available on both sides of the street within the Study Area.

- Mountaingate Drive – Mountaingate Drive is a designated Avenue II. It travels in the east-west direction and provides two 11-foot travel lanes, one lane in each direction. Parking is generally unavailable on either side of the street within the Study Area.

- Greenleaf Street – Greenleaf Street is a designated Local Street. It travels in the north-south direction and provides two 11- to 18-foot travel lanes, one lane in each direction. Parking is generally available on both sides of the street with peak hour restrictions on the north side west of Saugus Avenue within the Study Area.

- Ventura Boulevard – Ventura Boulevard is a designated Boulevard II. It travels in the east-west direction and provides six 10- to 18-foot travel lanes, three lanes in each direction, with left-turn lanes at major intersections. Metered parking is generally available on both sides of the street with peak hour restrictions on the south side of the street within the Study Area.

EXISTING TRANSIT SYSTEM

The Project Site is served by bus lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro), LADOT Commuter Express, and Santa Clarita Transit. Figure 3 illustrates the existing transit service in the Study Area. Table 3 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service, as described above. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site. The average headways during the peak hour were estimated using detailed trip and ridership data provided by Metro, as well as schedule information from each respective transit provider.

BICYCLE AND PEDESTRIAN NETWORK

Existing Bicycle System

Based on the Mobility Plan and *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (LADCP, adopted March 1, 2011) (2010 Bicycle Plan), the existing bicycle system in the Study Area consists of a limited coverage of bicycle lanes (Class II) and bicycle routes (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume arterial streets.

The following bicycle facilities are provided along corridors within the Study Area:

Bicycle Lanes (Class II)

- Sepulveda Boulevard between Skirball Center Drive and Sherman Oaks Avenue
- Valley Vista Boulevard between Haskell Avenue and Sherman Oaks Avenue

Bicycle Routes (Class III)

- Hayvenhurst Avenue north of Ventura Boulevard

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. The sidewalk along Mulholland Drive north of the Project Site that serves as a route to the Project Site provides proper connectivity and adequate widths for a comfortable and safe pedestrian environment. Marked pedestrian school crossings are provided at the Main Driveway and at the intersection of Walt Disney Drive & Mulholland Drive.

Vision Zero

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

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for 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 intersection indicating V/C ratios or delay and LOS.

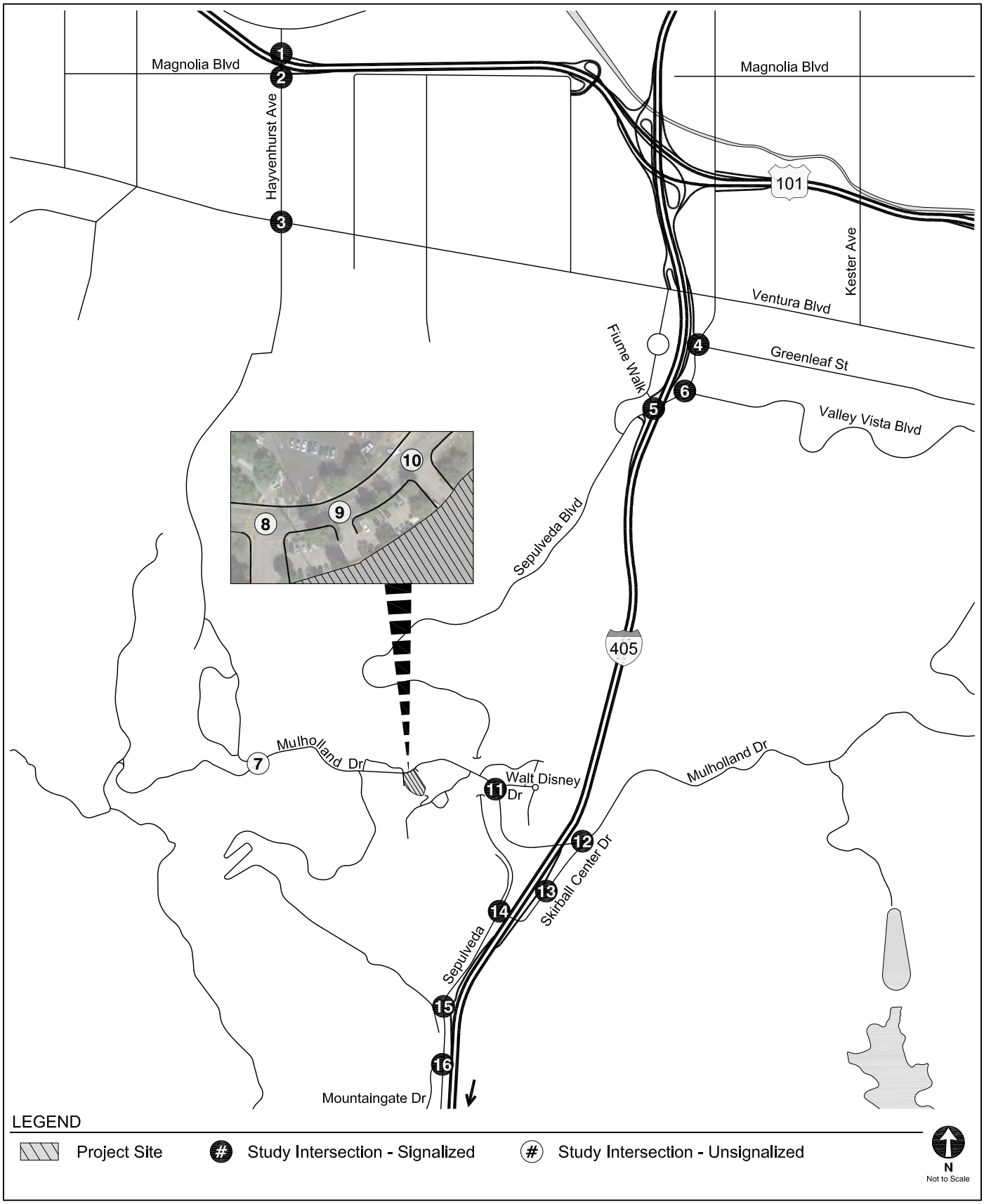
Existing Traffic Volumes

Intersection turning movement counts were conducted at the 16 study intersections during the weekday commuter/school morning (7:00 AM to 10:00 AM), school afternoon (2:00 PM to 4:00 PM), and commuter afternoon (4:00 PM to 6:00 PM) peak periods in October 2016 and May/June 2017. Based on the project growth rate for this region found in the CMP and coordination with LADOT, a 1% per year compounded ambient growth factor was applied to the traffic counts conducted in Year 2016 and Year 2017 to reflect Year 2019 traffic volumes. Local schools were in session when the traffic counts were conducted. The existing intersection peak hour traffic volumes are illustrated in Figure 4. Traffic count worksheets, along with bicycle and pedestrian count worksheets, are provided in Appendix D.

Existing Intersection Levels of Service

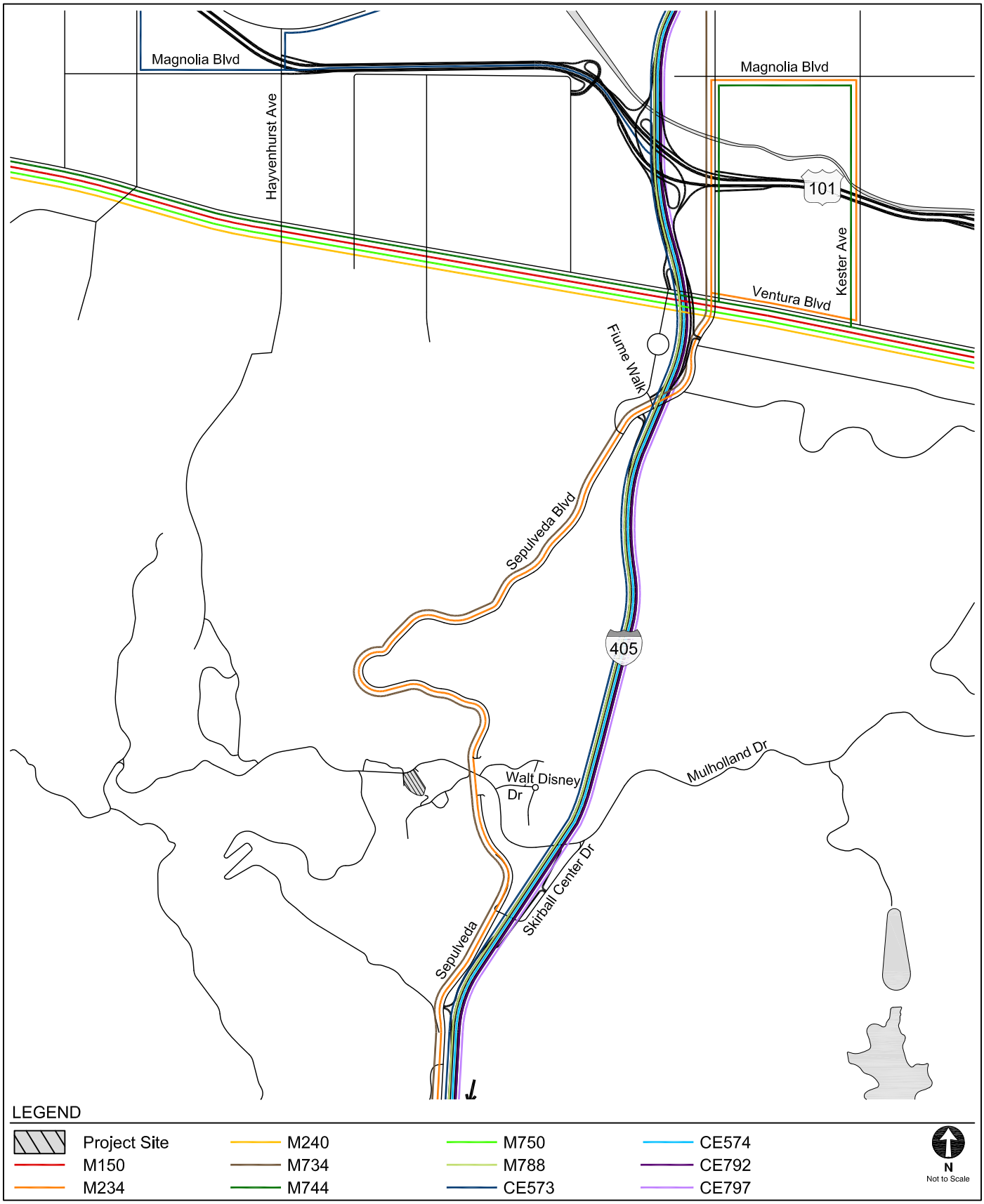
Table 4 summarizes the weekday morning and afternoon peak hour LOS results for each of the signalized study intersections under Existing Conditions. As shown in Table 4, nine of the 12 signalized study intersections currently operate at LOS D or better during the weekday commuter/school morning, school afternoon, and commuter afternoon peak hours. The remaining three intersections operate at LOS E or F during at least one of the analyzed peak hours.

The LOS calculation worksheets are provided in Appendix E.



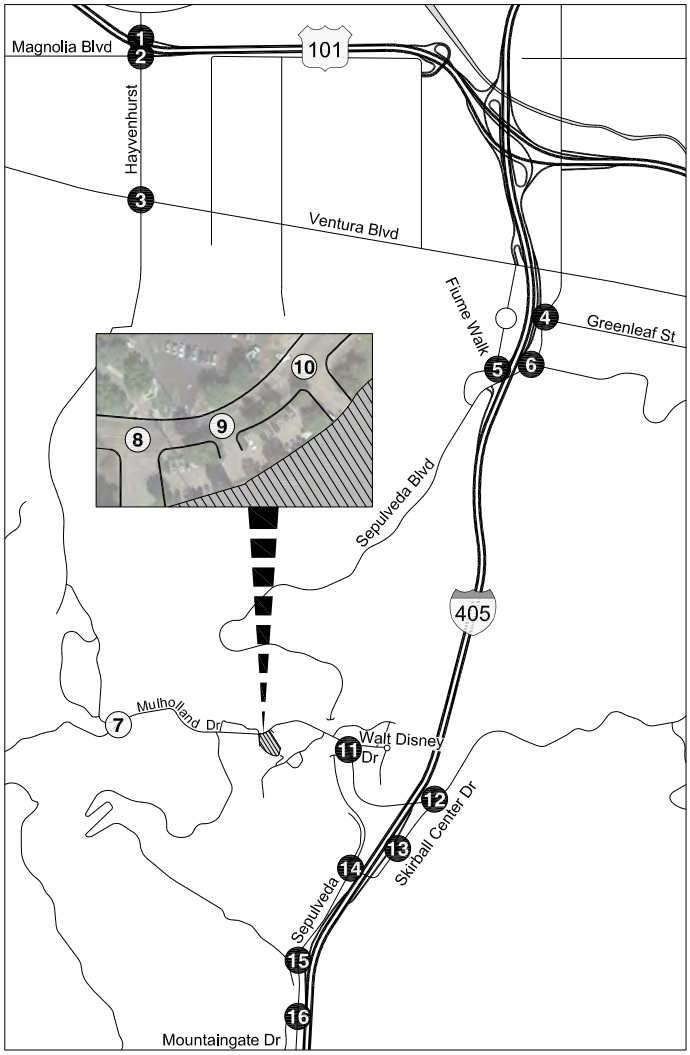
STUDY AREA

FIGURE 2



EXISTING TRANSIT SERVICE

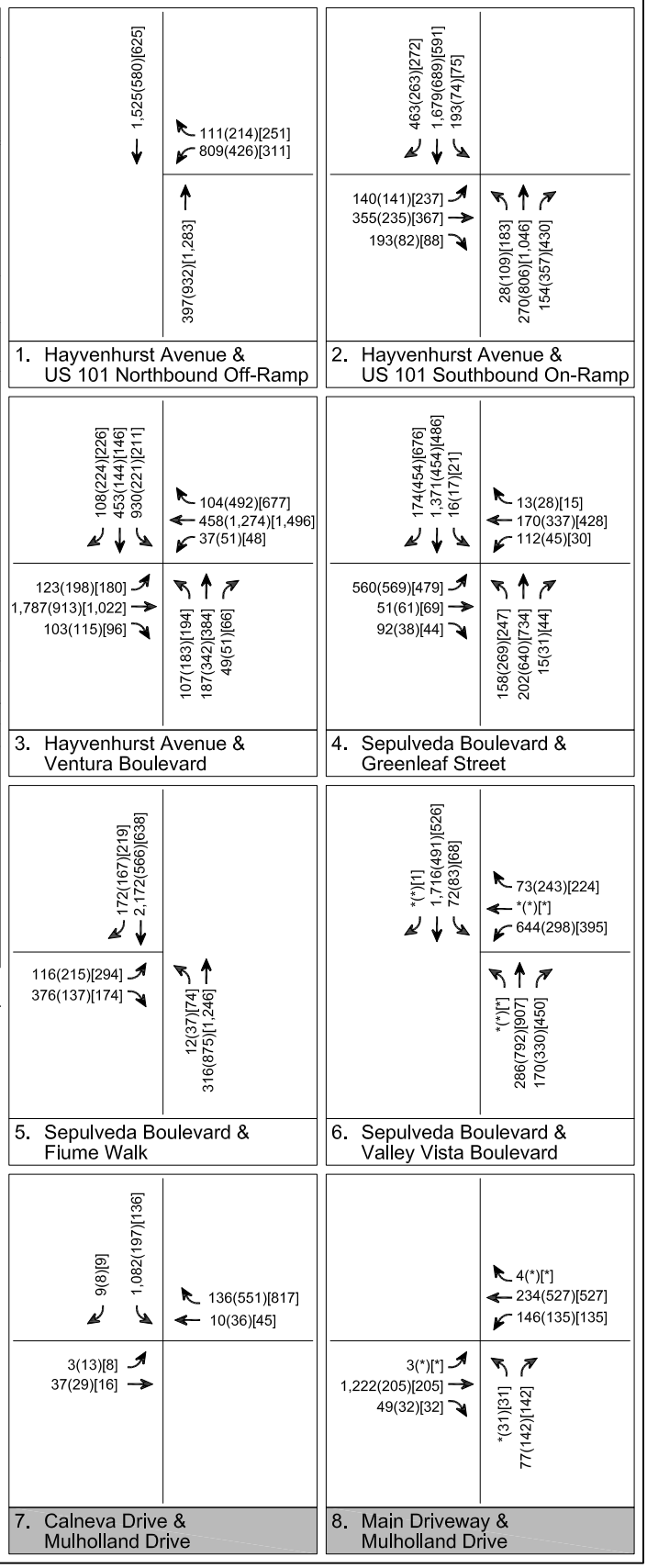
FIGURE 3



LEGEND

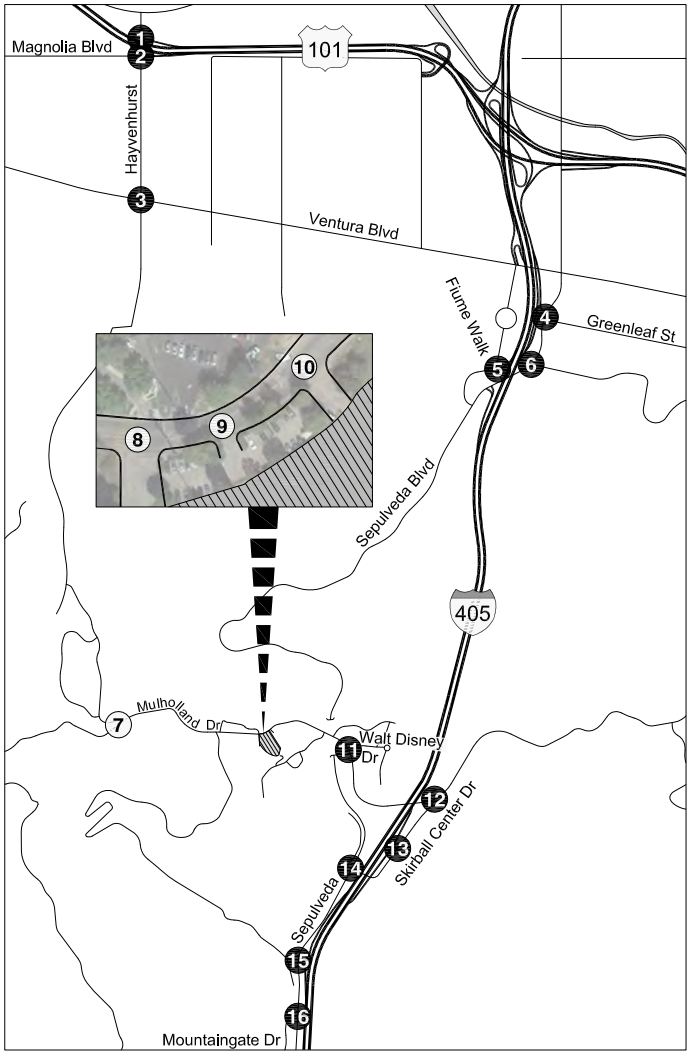
- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

N
Not to Scale



EXISTING CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

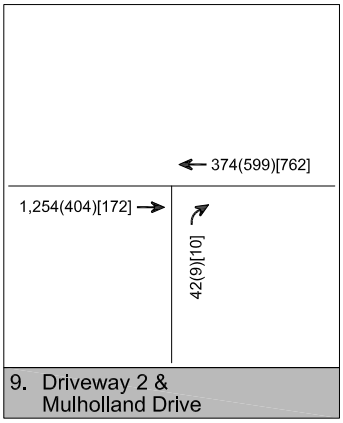
FIGURE 4



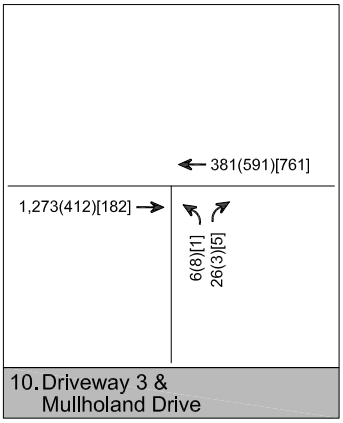
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

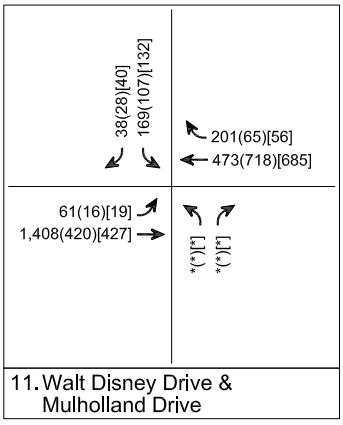
N
Not to Scale



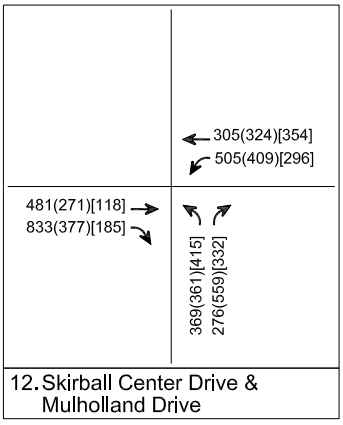
9. Driveway 2 & Mulholland Drive



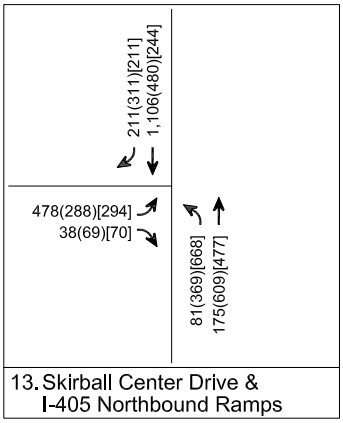
10. Driveway 3 & Mullholand Drive



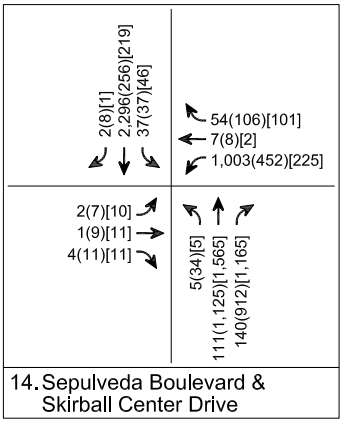
11. Walt Disney Drive & Mulholland Drive



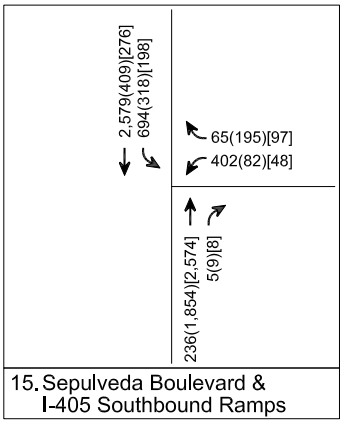
12. Skirball Center Drive & Mulholland Drive



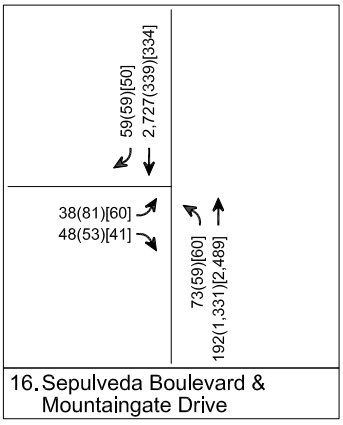
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

EXISTING CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)

TABLE 2
STUDY INTERSECTIONS

No	Intersection	Jurisdiction
1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	City of Los Angeles/Caltrans
2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	City of Los Angeles/Caltrans
3.	Hayvenhurst Avenue & Ventura Boulevard	City of Los Angeles
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	City of Los Angeles/Caltrans
5.	Sepulveda Boulevard & Fiume Walk	City of Los Angeles
6.	Sepulveda Boulevard & Valley Vista Boulevard	City of Los Angeles
7. [a]	Calneva Drive & Mulholland Drive	City of Los Angeles
8. [a]	Main Driveway & Mulholland Drive	City of Los Angeles
9. [a]	Driveway 2 & Mulholland Drive	City of Los Angeles
10. [a]	Driveway 3 & Mulholland Drive	City of Los Angeles
11.	Walt Disney Drive & Mulholland Drive	City of Los Angeles
12.	Skirball Center Drive & Mulholland Drive	City of Los Angeles
13.	Skirball Center Drive & I-405 Northbound Ramps	City of Los Angeles/Caltrans
14.	Sepulveda Boulevard & Skirball Center Drive	City of Los Angeles
15.	Sepulveda Boulevard & I-405 Southbound Ramps	City of Los Angeles/Caltrans
16.	Sepulveda Boulevard & Mountaingate Drive	City of Los Angeles

Notes
[a] Unsignalized Intersection

TABLE 3
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				A.M.		P.M.	
Metro				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
150	Studio City - Canoga Park via Ventura Bl & Reseda Bl	Local	24-Hour	15	14	14	13
234	Sylmar - Westwood via Sepulveda Bl	Local	3:00 AM - 1:00 AM	22	20	18	24
240	Studio City - Canoga Park via Ventura Bl & Reseda Bl	Local	4:00 AM - 1:00 AM	48	27	24	27
734	Sylmar Station - West Los Angeles via Sepulveda Bl	Rapid	5:00 AM - 10:00 PM	22	18	17	20
744	Northridge/Pacoima - Sherman Oaks/Tarzana via Reseda Bl, Ventura Bl & Van Nuys Bl	Rapid	5:00 AM - 11:00 PM	20	20	20	20
750	Studio City - Warner Center via Ventura Bl	Rapid	5:00 AM - 10:00 PM	17	17	16	16
788	Arleta - West Los Angeles via Van Nuys Bl & I-405	Rapid	6:00 AM - 8:00 PM	24	20	18	24
LADOT Commuter Express				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
CE573	Mission Hills/Encino - Westwood/Century City	Express	5:00 AM - 8:00 PM	90	17	22	90
CE574	Sylmar/Granada Hills/Encino - LAX/El Segundo	Express	5:00 AM - 8:00 PM	N/A	30	60	N/A
Santa Clarita Transit Commuter Express				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
CE792	Century City/UCLA/Westwood - Santa Clarita	Express	7:00 AM - 6:30 PM	38	N/A	N/A	36
CE797	Santa Clarita - Century City/UCLA/Westwood	Express	5:00 AM - 9:00 PM	N/A	25	30	N/A

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
LADOT Commuter Express: Los Angeles Department of Transportation
Santa Clarita Transit Commuter Express: City of Santa Clarita
A.M. Peak Period is from 6:00 - 10:00 A.M. P.M. Peak Period is from 3:00 - 7:00 P.M.

TABLE 4
EXISTING CONDITIONS (YEAR 2019)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Existing Conditions	
			V/C	LOS
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.405	A
		School PM	0.250	A
		PM	0.517	A
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.805	D
		School PM	0.361	A
		PM	0.661	B
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.843	D
		School PM	0.601	B
		PM	0.775	C
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.736	C
		School PM	0.769	C
		PM	0.794	C
5.	Sepulveda Boulevard & Fiume Walk	AM	0.601	B
		School PM	0.256	A
		PM	0.398	A
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.713	C
		School PM	0.456	A
		PM	0.498	A
11.	Walt Disney Drive & Mulholland Drive	AM	0.459	A
		School PM	0.456	A
		PM	0.445	A
12.	Skirball Center Drive & Mulholland Drive	AM	0.839	D
		School PM	0.517	A
		PM	0.351	A
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.648	B
		School PM	0.438	A
		PM	0.693	B
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.109	F
		School PM	0.602	B
		PM	0.796	C
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.087	F
		School PM	0.749	C
		PM	0.950	E
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.923	E
		School PM	0.399	A
		PM	0.797	C

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Chapter 5
Future without Project Conditions

Estimates of future traffic conditions both with and without the Project were developed to evaluate the potential impacts of the Project on the local street system. This discussion details the assumptions used to develop the Future without Project Conditions. This Study evaluates the impacts of the increase in student enrollment that will occur in the Year 2025.

The existing traffic volumes were factored by an annual ambient growth rate to approximate regional growth and development. In addition to the ambient growth, for purposes of providing a conservative analysis of potential cumulative transportation impacts, the traffic generated by related projects was also added to estimate the Future without Project Conditions.

CEQA GUIDELINES REGARDING FUTURE TRAFFIC CONDITIONS

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

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> "(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes traffic growth both from future projects (option "A" above, the "Related Projects") and from regional growth projections (option "B" above, or ambient growth). The CEQA guidelines suggest that one option or the other be chosen, rather than both. Accordingly, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

AMBIENT TRAFFIC GROWTH

Existing traffic is expected to increase as a result of regional growth and development outside the Study Area. The CMP provides general growth factors based on regional modeling. As shown in Exhibit D-1 of the CMP, the Woodland Hills/Sherman Oaks/Sepulveda area is estimated to experience a total regional growth in traffic of 3.9% between the years of 2015 and 2025, which equates to an ambient growth factor of approximately 0.39% per year. However, based on discussions with LADOT through the MOU process, a conservative ambient growth factor of 1% per year compounded annually was used to adjust the existing traffic volumes to reflect the effects of the regional growth and development by Year 2025. The total adjustment applied over the six-year period was 6.15%. Therefore, the ambient growth rate of 1% per year more than accounts for the projected growth from the CMP. This growth factor conservatively accounts for increases in traffic due to potential projects not yet proposed or projects outside the transportation analysis Study Area.

RELATED PROJECTS

In accordance with the CEQA requirements in *Guidelines*, this Study also considers the effects of the Project in relation to the Related Projects. With this information, the potential impact of the Project is, therefore, evaluated within the context of the cumulative impact of all ongoing development.

The list of Related Projects is based on information provided by LADCP and LADOT, as well as recent studies of projects in the area. The Related Projects are detailed in Table 5 and shown in

Figure 5. Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this Study and conservatively assumed to be completed by the Project buildout Year 2025.

Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, alone, provides an overestimation of the actual traffic volume growth in the area than would likely occur in the next six years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project cumulative condition is even more conservative.

Using these conservative assumptions, the potential transportation impacts of the Project were evaluated within the context of the worst-case cumulative impact of all prospective development. The development of estimated traffic volumes added to the Study Area as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Los Angeles County Parks and Recreation proposed the development of another recreational park north of Mulholland Drive and west of Sepulveda Boulevard. Public information sessions were held for the proposed park, but the proposal has since been withdrawn for additional study. A decision was made to eliminate any further consideration of access to/from the proposed park directly from Mulholland, so even if the park project is revived, it is unlikely to have much traffic influence on the study intersections along Mulholland.

Trip Generation

Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates summarized in Table 5 are very conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of

other travel modes (transit, bicycle, walk, etc.) Further, they do not account for the internal capture trips within a multi-use development, nor the interaction of trips between multiple Related Projects, in which one Related Project serves as the origin for a trip destined for another Related Project.

Trip Distribution

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

Trip Assignment

The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 6 shows the peak hour traffic volumes associated with these Related Projects at the study intersections. These volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected buildout Year 2025. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) and are shown in Figure 7 for the 16 study intersections.

FUTURE IMPROVEMENTS

Future Roadway Improvements

No future roadway improvements were included as part of the Future Conditions analyses, so as to provide a more conservative analysis.

2010 Bicycle Plan

The 2010 Bicycle Plan identifies the City's vision for a more integrated bicycle network throughout the City, including within the Study Area. Within the Study Area, the 2010 Bicycle Plan proposes dedicated bicycle lanes on Sepulveda Boulevard, Ventura Boulevard, and Hayvenhurst Avenue. Dedicated bicycle-friendly streets are proposed on Mulholland Drive within the Study Area. Upon consultation with LADOT, no changes to vehicular lane configurations as a result of potential new bicycle lanes were assumed in this analysis.

Mobility Plan

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

- Transit Enhanced Network: Ventura Boulevard and Sepulveda Boulevard north of Ventura Boulevard were identified as part of the Transit Enhanced Network.
- Neighborhood Enhanced Network: Mulholland Drive, Roscomare Road south of Mulholland Drive, Hayvenhurst Avenue, Valley Vista Boulevard, Saugus Avenue between Valley Vista Boulevard and Greenleaf Street, Kester Avenue north of Valley Vista

Boulevard, Densmore Avenue between Woodvale Road and Valley Vista Boulevard, Woodvale Road between High Valley Road and Valley Vista Boulevard, High Valley Road between Woodvale Road and Bergamo Drive, Noeline Avenue between Bergamo Drive and Libbit Avenue, Libbit Avenue between Hayvenhurst Avenue and Noeline Avenue, Libbit Avenue between Dickens Street and Moorpark Street, Dickens Street between Woodley Avenue and Libbit Avenue, Moorpark Street between Libbit Avenue and Hayvenhurst Avenue, Woodley Avenue between Dickens Street and Valley Vista Boulevard, and Greenleaf Street east of Saugus Avenue were identified as part of the Neighborhood Enhanced Network.

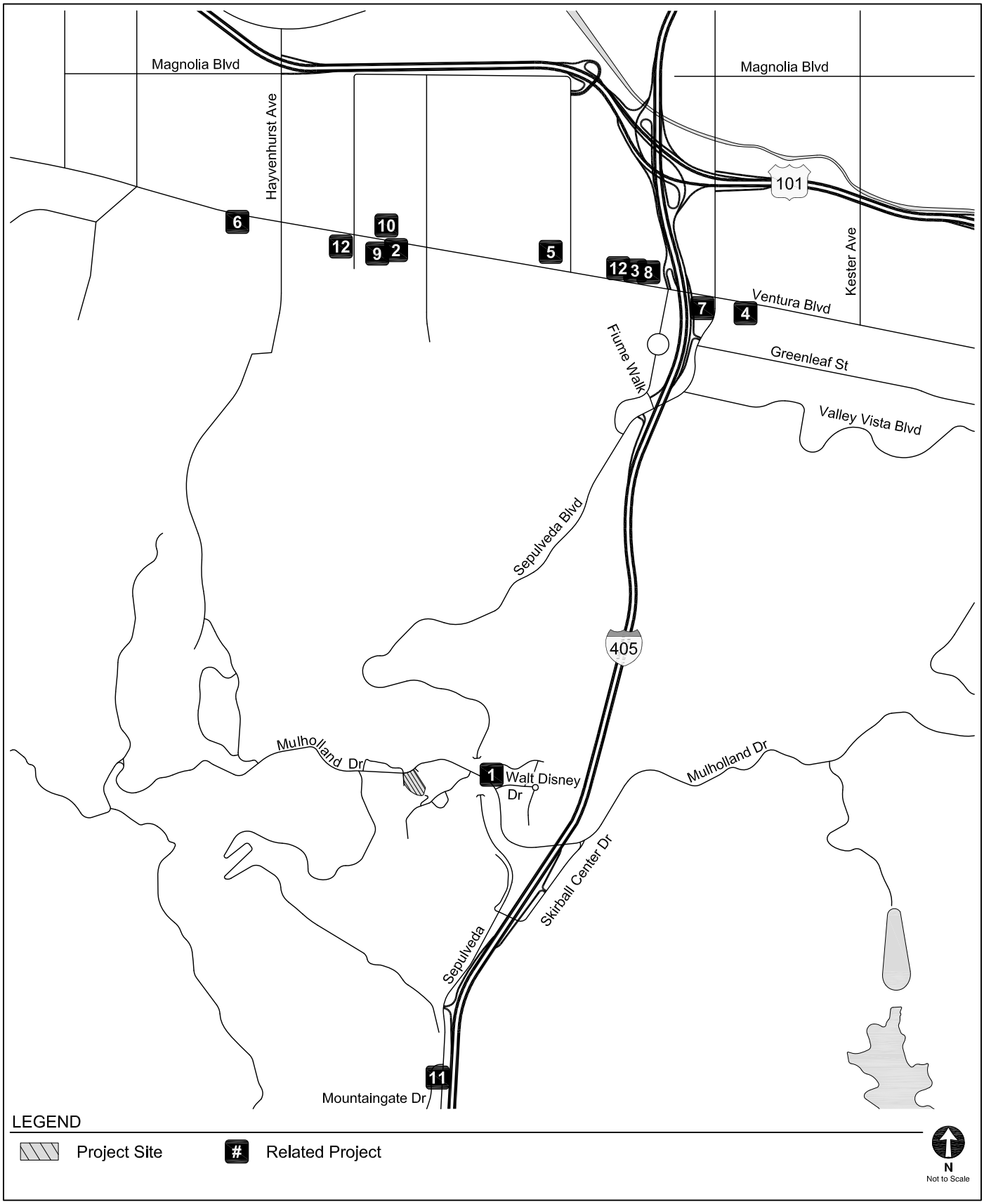
- Bicycle Network / Bicycle Path Network: Ventura Boulevard, Sepulveda Boulevard, and Valley Vista Boulevard between Haskell Avenue and Sherman Oaks Avenue were identified as part of the Bicycle Network. Valley LA River Path was identified as part of the Bicycle Path Network.

- Pedestrian Enhanced Districts: Sepulveda Boulevard north of Valley Vista Boulevard, Ventura Boulevard, and Valley Vista Boulevard between Sutton Place and Woodcliff Road were identified as part of the Pedestrian Enhanced Districts.

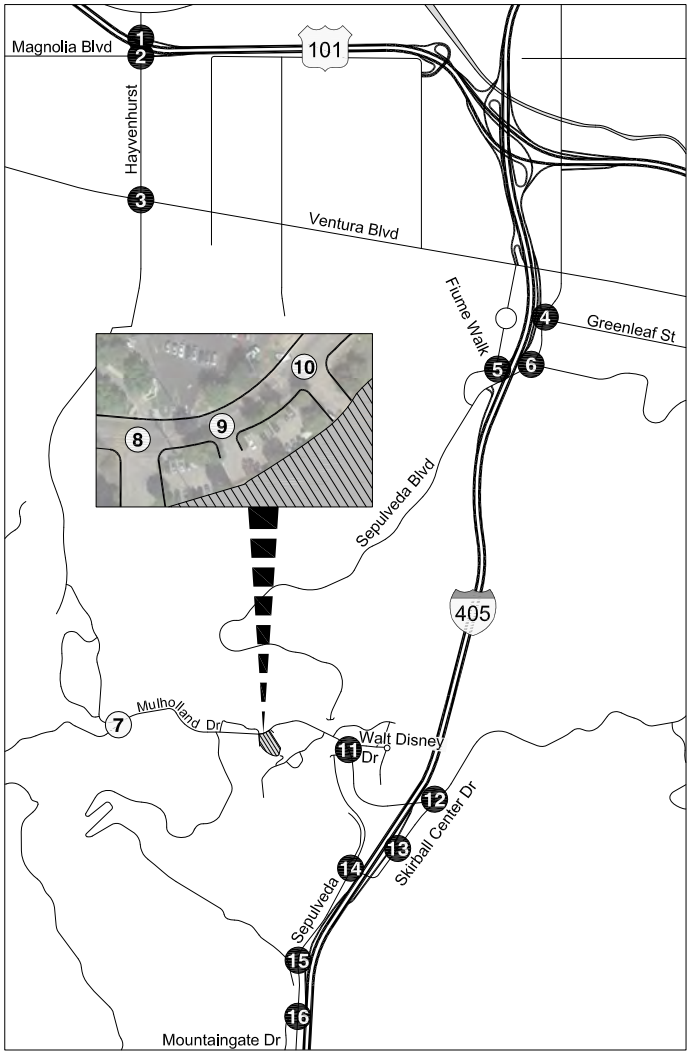
FUTURE WITHOUT PROJECT INTERSECTION LEVELS OF SERVICE

Table 6 summarizes the weekday commuter/school morning, school afternoon, and commuter afternoon peak hours LOS results for each of the signalized study intersections under Future without Project Conditions. As shown in Table 6, nine of the 12 signalized study intersections are projected to operate at LOS D or better during all analyzed peak hours. The remaining three intersections would operate at LOS E or F during at least one of the analyzed peak hours.

The LOS calculation worksheets are provided in Appendix E.



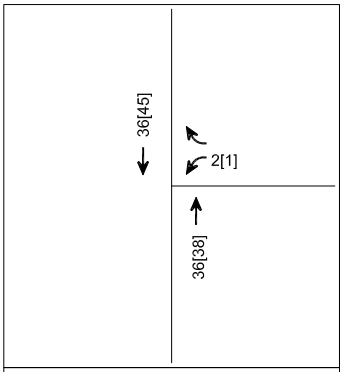
LOCATIONS OF RELATED PROJECTS	FIGURE 5



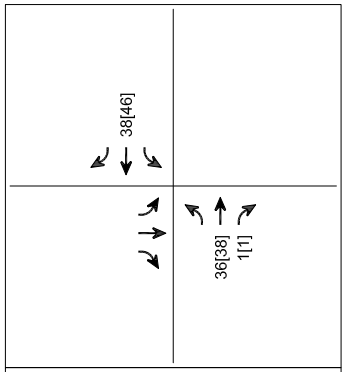
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- X[X] AM[PM] Peak Hour Traffic Volumes

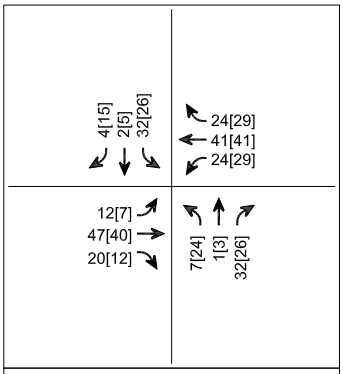
N
Not to Scale



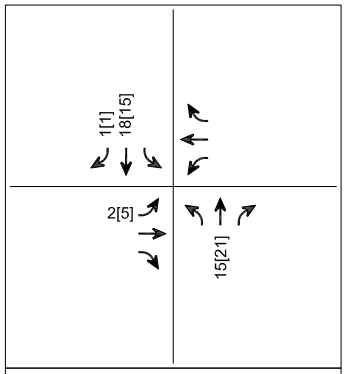
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



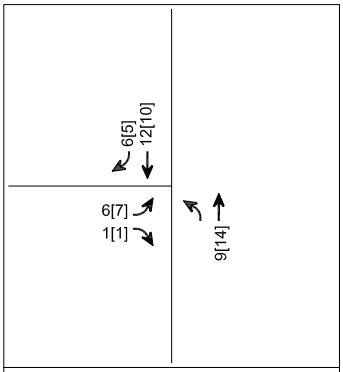
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



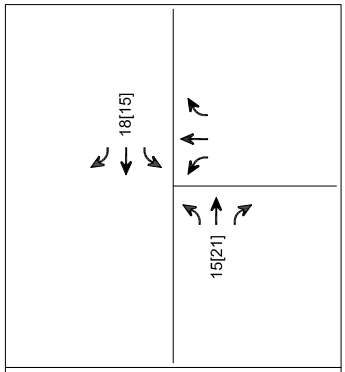
3. Hayvenhurst Avenue & Ventura Boulevard



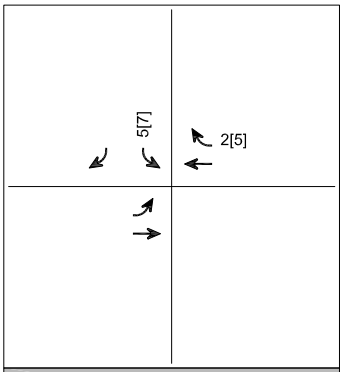
4. Sepulveda Boulevard & Greenleaf Street



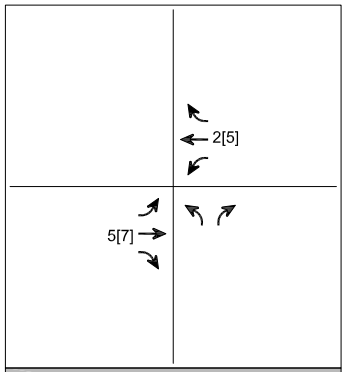
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



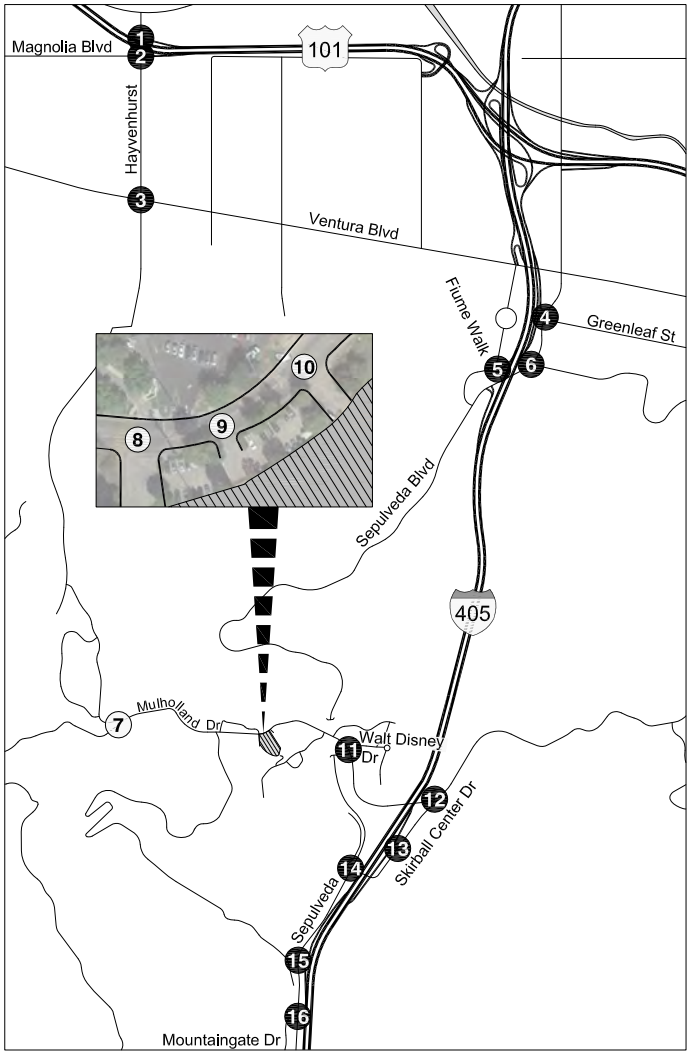
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

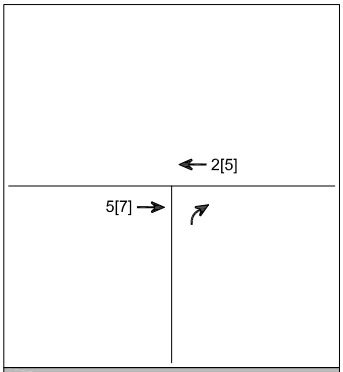
FIGURE
6



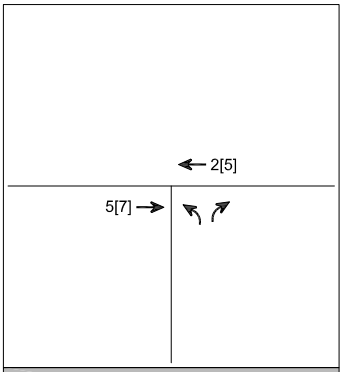
LEGEND

- Project Site
- (#) Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X[X] AM[PM] Peak Hour Traffic Volumes

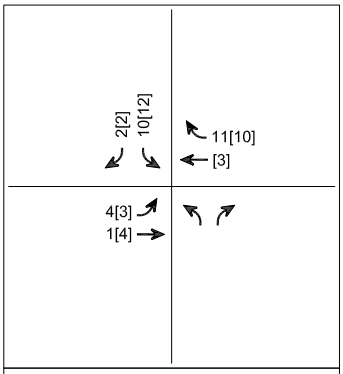
N
Not to Scale



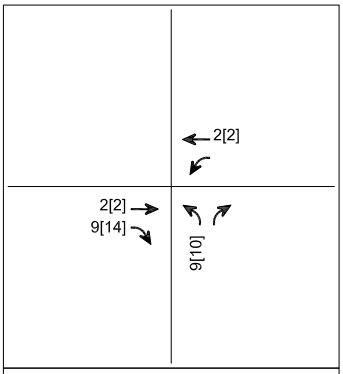
9. Driveway 2 & Mulholland Drive



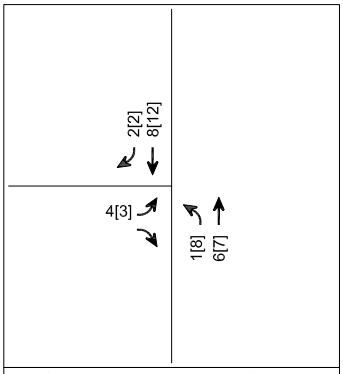
10. Driveway 3 & Mullholand Drive



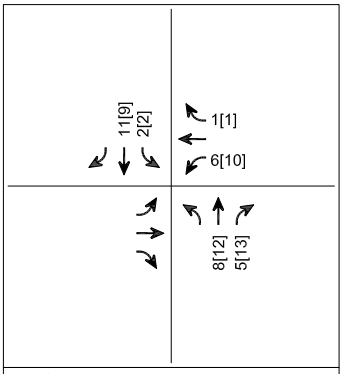
11. Walt Disney Drive & Mulholland Drive



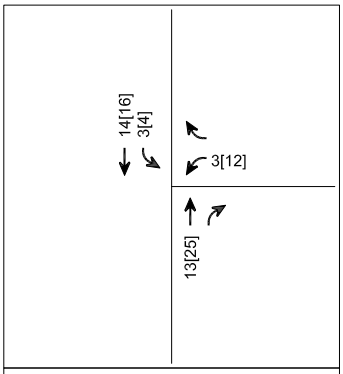
12. Skirball Center Drive & Mulholland Drive



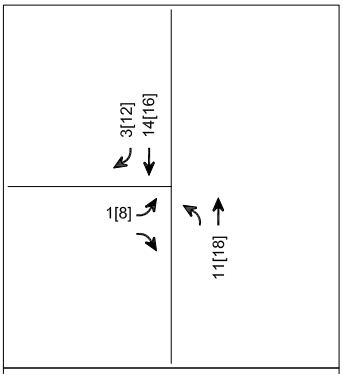
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



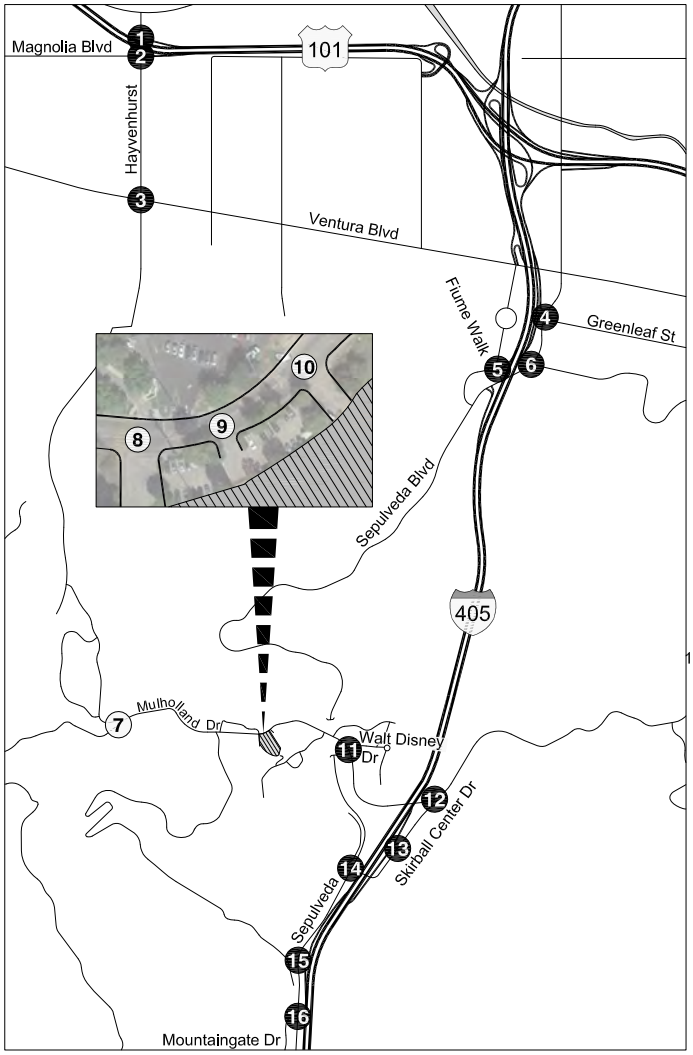
15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

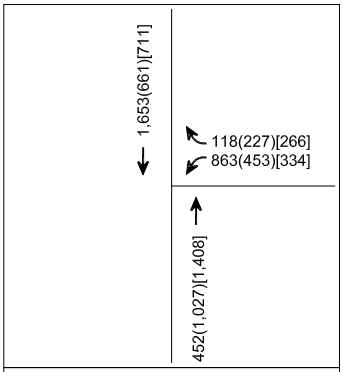
FIGURE
6 (CONT.)



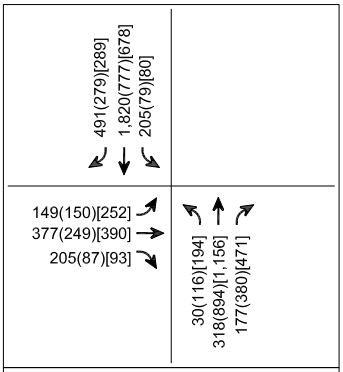
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

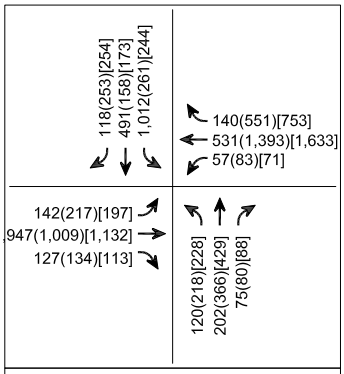
N
Not to Scale



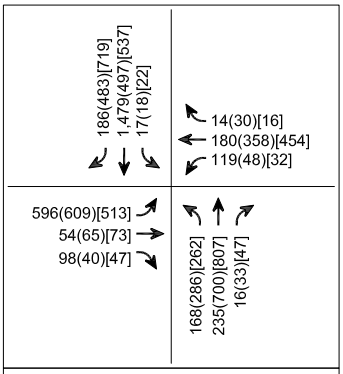
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



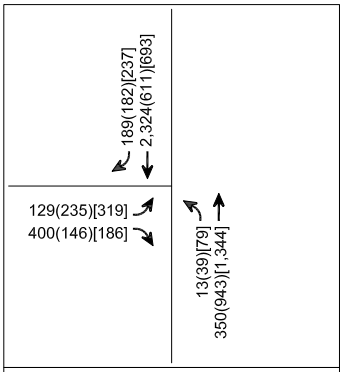
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



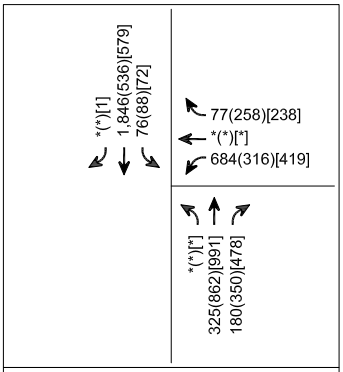
3. Hayvenhurst Avenue & Ventura Boulevard



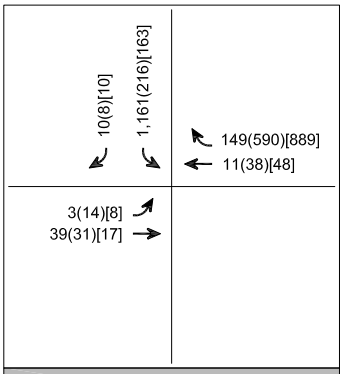
4. Sepulveda Boulevard & Greenleaf Street



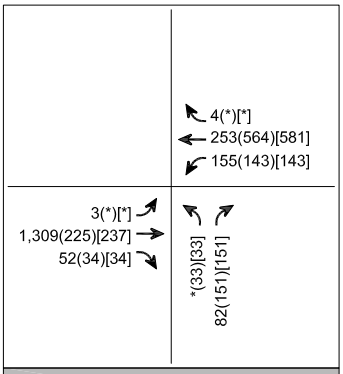
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



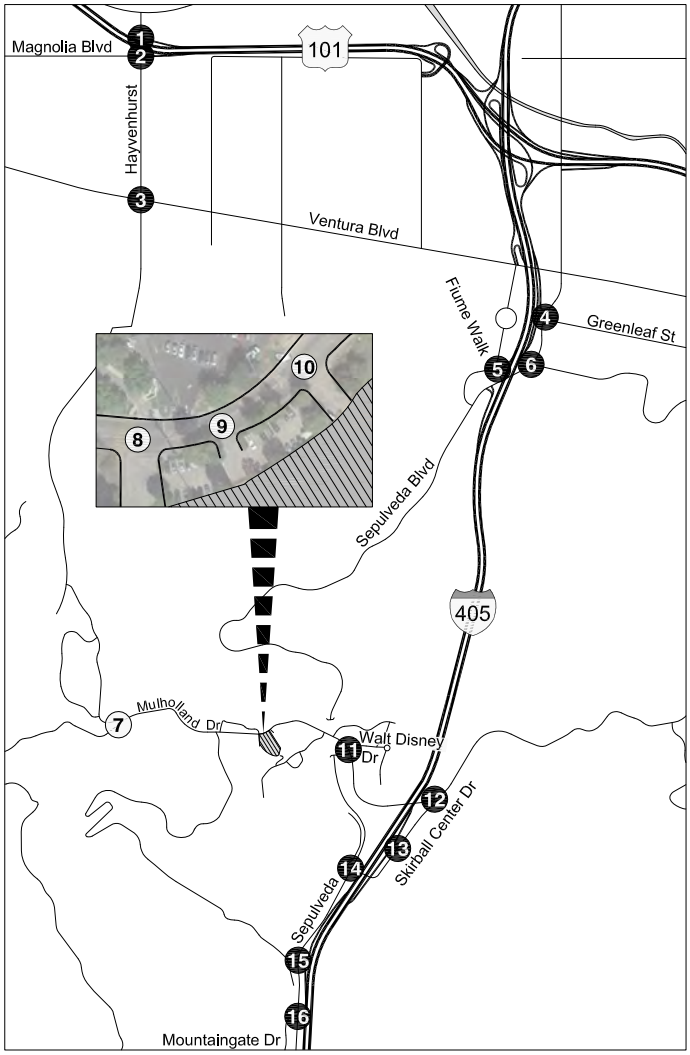
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

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

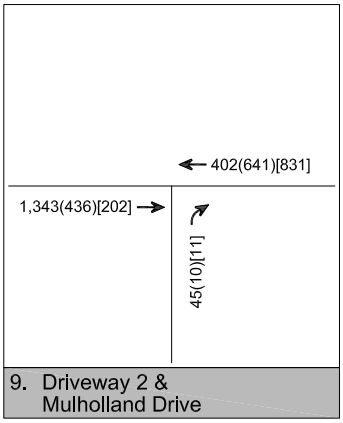
FIGURE 7



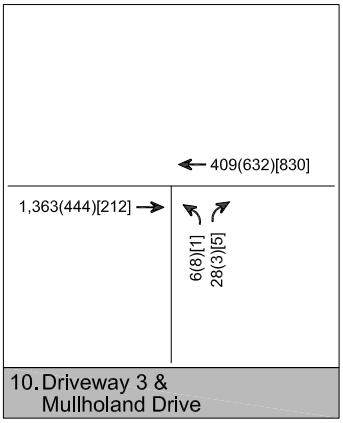
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

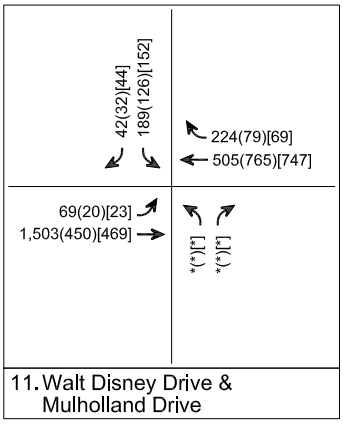
N
Not to Scale



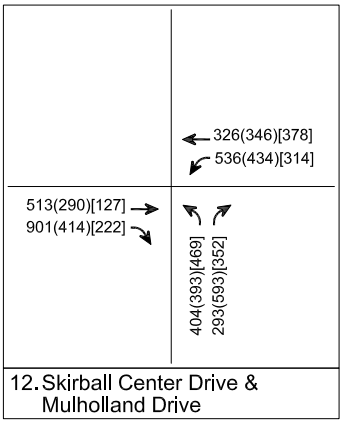
9. Driveway 2 & Mulholland Drive



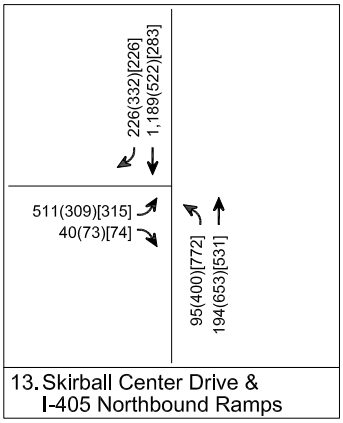
10. Driveway 3 & Mullholand Drive



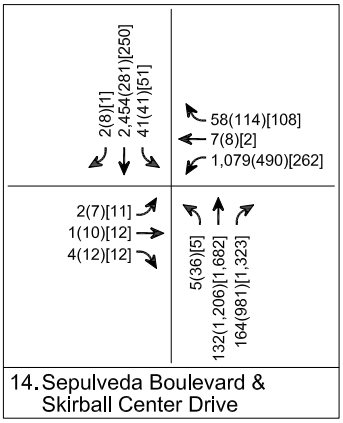
11. Walt Disney Drive & Mulholland Drive



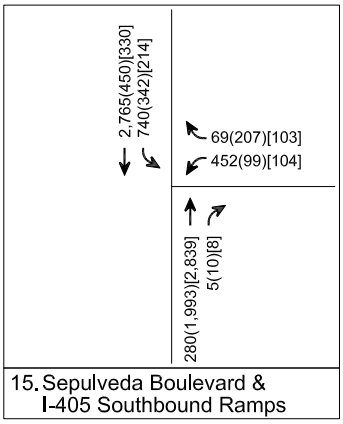
12. Skirball Center Drive & Mulholland Drive



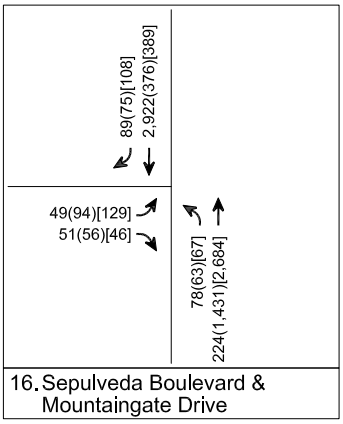
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

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

FIGURE
7 (CONT.)

TABLE 5
RELATED PROJECTS

No	Project [a]	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Curtis School	15871 W Mulholland Drive	TDM program per conditional use permit	0	0	27	27	0	27	27
2.	Woodrise Mixed-Use	16130 Ventura Boulevard	51 apartment units with 19,400 sf retail and 1,063 sf office	1,477	10	34	44	90	50	140
3.	Hotel	15485 Ventura Boulevard	180-room hotel	932	36	25	61	35	33	68
4.	Tract 62077 Mixed-Use	15222 Ventura Boulevard	52 condominium units and 7,460 sf specialty retail	609	9	23	32	27	20	47
5.	Valley Beth Shalom Preschool	15739 Ventura Boulevard	Increase enrollment from 820 students to 1,079 students	1,000	72	63	135	48	53	101
6.	Bank	15821 Ventura Boulevard	6,115 sf bank	623	18	7	25	22	28	50
7.	Coffee Shop	15315 Dickens Street	10,000 sf coffee shop	1,300	60	60	120	70	50	120
8.	Convenience Store	15445 Ventura Boulevard	2,770 sf convenience store	721	38	40	78	26	22	48
9.	Mixed-Use	16206 Ventura Boulevard	12,880 sf mixed-use	726	34	38	72	28	19	47
10.	Apartment	16161 Ventura Boulevard	114 apartment units	758	12	46	58	46	25	71
11.	Recreational Park	2301 N Sepulveda Boulevard	Improvement to a 500-acre recreational park	1,083	6	3	9	26	17	43
12.	Apartments	4741 Libbit Avenue	46 apartment units	249	5	12	17	12	7	19
			Total:	9,478	300	378	678	430	351	781

Notes
sf: square feet
[a] Related projects information provided by LADOT, August 2019.

TABLE 6
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions	
			V/C	LOS
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.415	A
		School PM	0.261	A
		PM	0.533	A
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.798	C
		School PM	0.386	A
		PM	0.698	B
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.872	D
		School PM	0.666	B
		PM	0.851	D
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.725	C
		School PM	0.800	C
		PM	0.829	D
5.	Sepulveda Boulevard & Fiume Walk	AM	0.615	B
		School PM	0.264	A
		PM	0.406	A
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.703	C
		School PM	0.481	A
		PM	0.523	A
11.	Walt Disney Drive & Mulholland Drive	AM	0.455	A
		School PM	0.494	A
		PM	0.482	A
12.	Skirball Center Drive & Mulholland Drive	AM	0.833	D
		School PM	0.548	A
		PM	0.377	A
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.648	B
		School PM	0.506	A
		PM	0.778	C
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.094	F
		School PM	0.685	B
		PM	0.885	D
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.088	F
		School PM	0.826	D
		PM	1.053	F
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.914	E
		School PM	0.449	A
		PM	0.859	D

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Chapter 6
Project Traffic

This chapter describes the assumptions and methodology used in developing the traffic volumes associated with the proposed Project within the Study Area.

PROJECT DESCRIPTION

The School operates under a CUP that currently allows a maximum enrollment of 330 full-time students. The School is seeking to increase enrollment to a maximum of 430 students. Student enrollment would be increased over six years, with maximum enrollment by Year 2025.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the Project and existing uses were estimated using rates published for Land Use Code 534 (Private School K-8) in *Trip Generation, 10th Edition*. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Site to the size of development of each land use.

Table 7 shows the Project trip generation, with enrollment increasing in the K-8 grades to 430 students. Under this scenario, the traffic increase would be a total of 91 net new trips occurring in the morning peak hour (50 inbound and 41 outbound trips), 62 net new trips occurring in the school peak afternoon peak hour (29 inbound and 33 outbound trips), and 26 net new trips occurring in the afternoon commuter peak hour (12 inbound and 14 outbound trips).

PROJECT TRIP DISTRIBUTION

The geographic distribution of trips generated by the Project was distributed and assigned to the local street system based on student zip code data provided by the School and the proposed student drop-off and pick-up circulation. A summary of the student zip code data is provided in Appendix F. The general distribution pattern was reviewed and approved by LADOT.

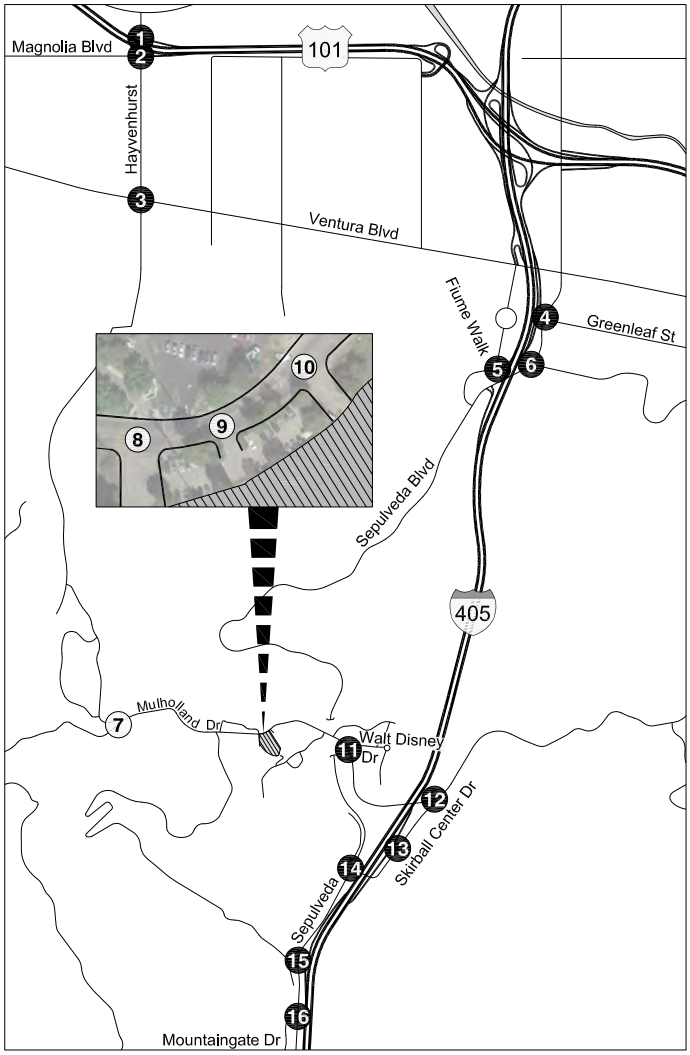
The Project traffic was assigned to the surrounding street system based on the following general distribution pattern:

- 5% to/from the north (I-405, Sepulveda Boulevard)
- 45% to/from the south (I-405, Sepulveda Boulevard)
- 35% to/from the east (US 101, Mulholland Drive, Ventura Boulevard)
- 15% to/from the west (US 101, Ventura Boulevard)

The intersection-level trip distribution pattern for the Project is shown in Figure 8.

PROJECT TRIP ASSIGNMENT

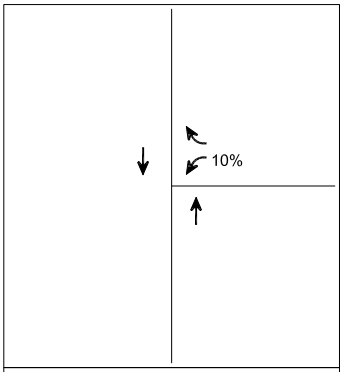
The Project trip generation estimates summarized in Table 7 and the trip distribution patterns shown in Figure 8 were used to assign the Project-generated traffic through the study intersections. Figure 9 illustrates the Project-only traffic volumes at the study intersections during typical weekday commuter/school morning, school afternoon, and commuter afternoon peak hours.



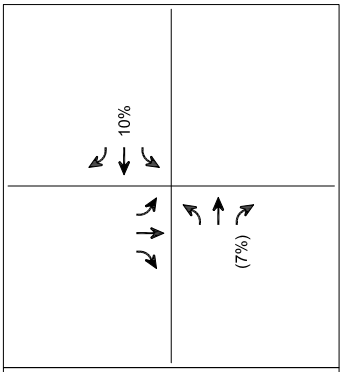
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- %(%) Inbound(Outbound) Trip Percentage

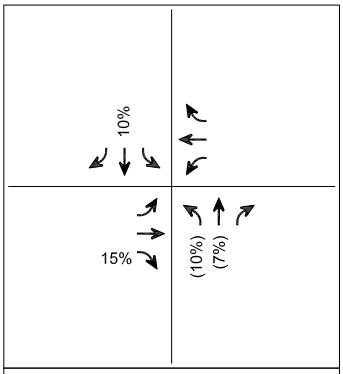
N
Not to Scale



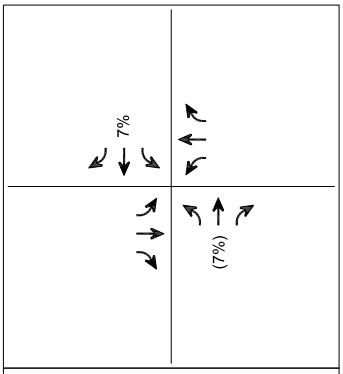
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



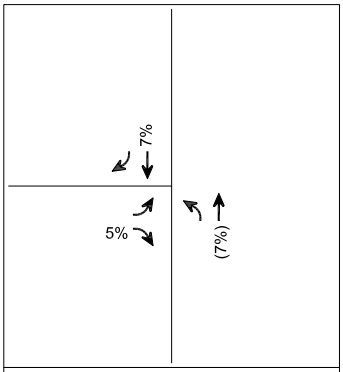
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



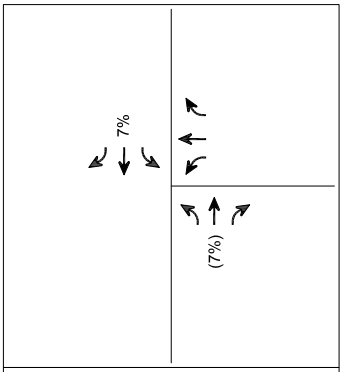
3. Hayvenhurst Avenue & Ventura Boulevard



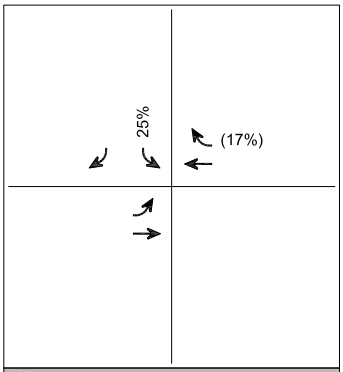
4. Sepulveda Boulevard & Greenleaf Street



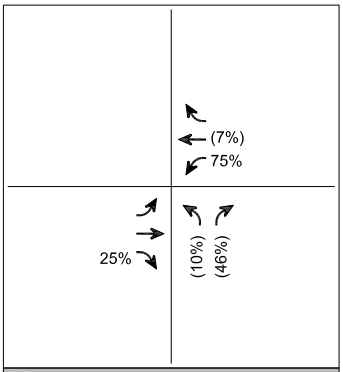
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



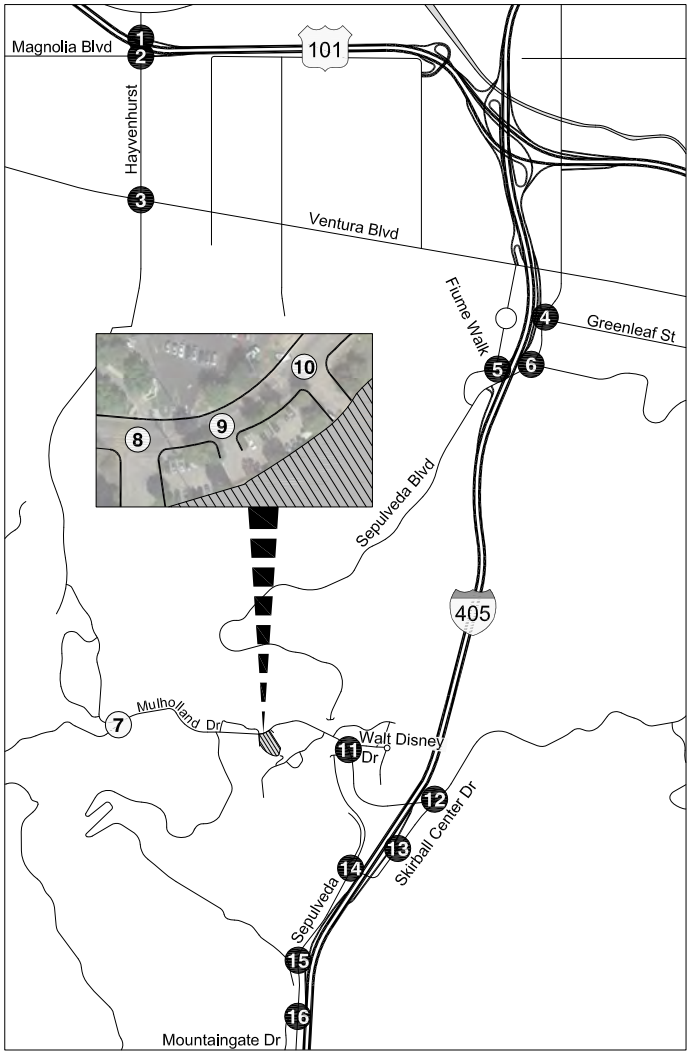
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

TRIP DISTRIBUTION

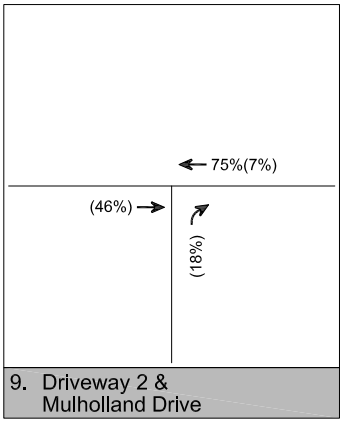
FIGURE 8



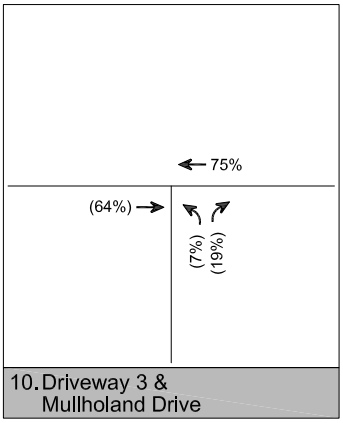
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- %(%) Inbound(Outbound) Trip Percentage

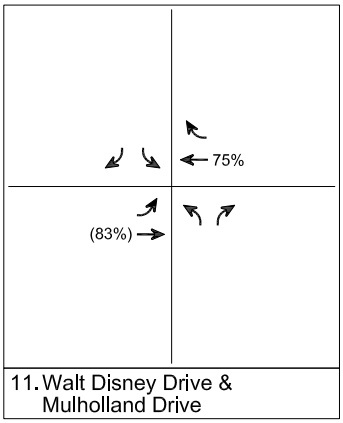
N
Not to Scale



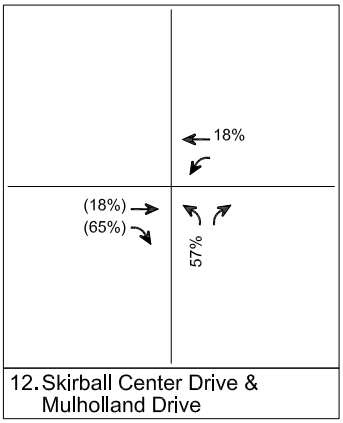
9. Driveway 2 & Mulholland Drive



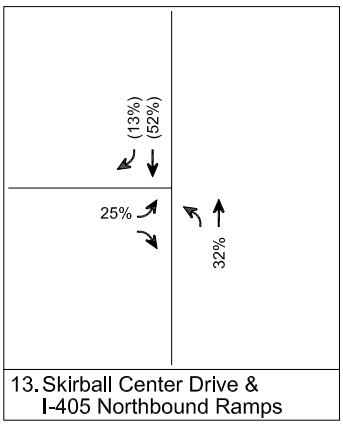
10. Driveway 3 & Mullholand Drive



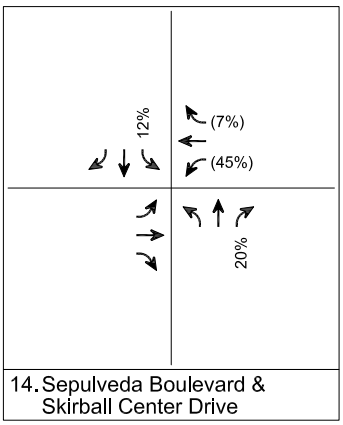
11. Walt Disney Drive & Mulholland Drive



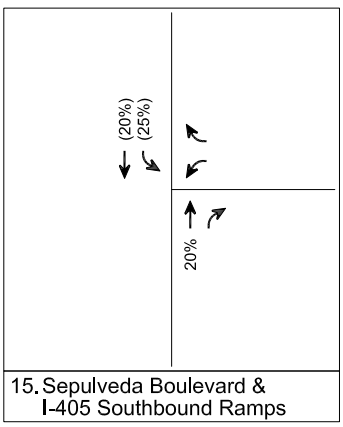
12. Skirball Center Drive & Mulholland Drive



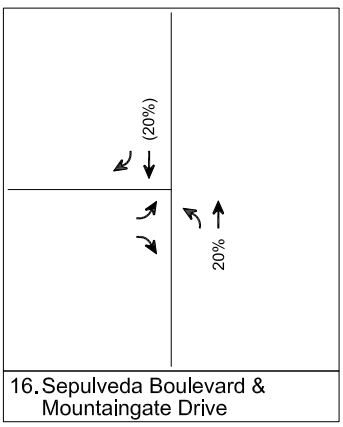
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



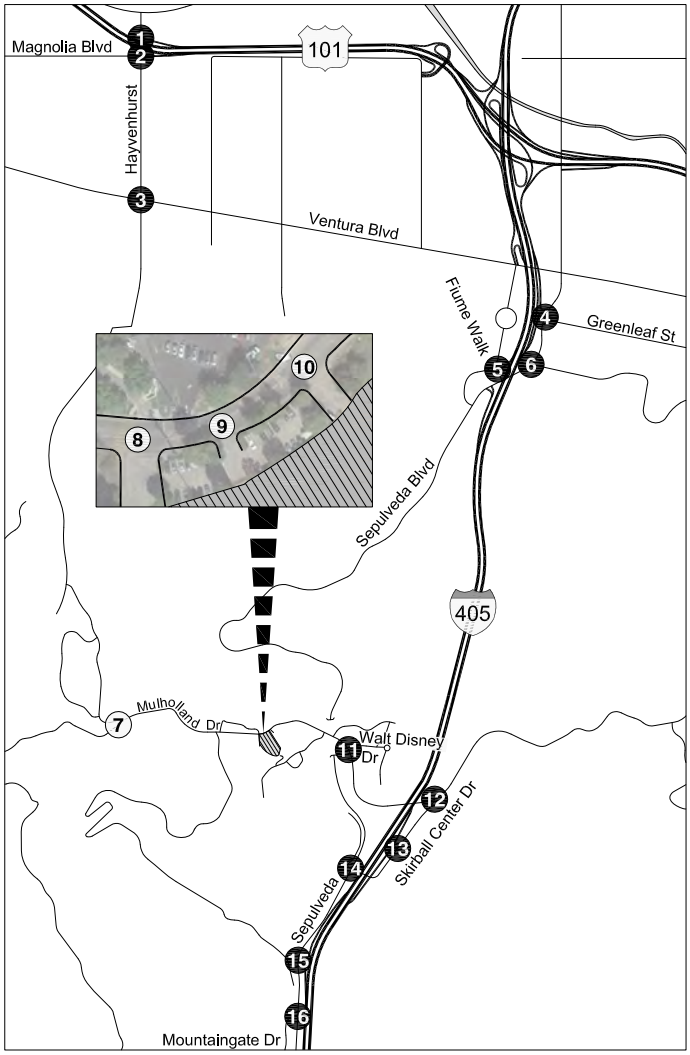
15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

TRIP DISTRIBUTION

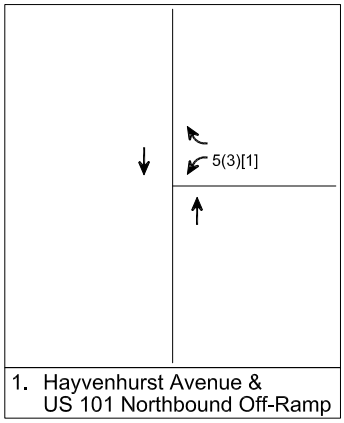
FIGURE 8 (CONT.)



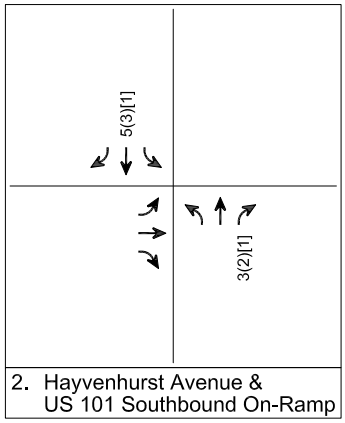
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes

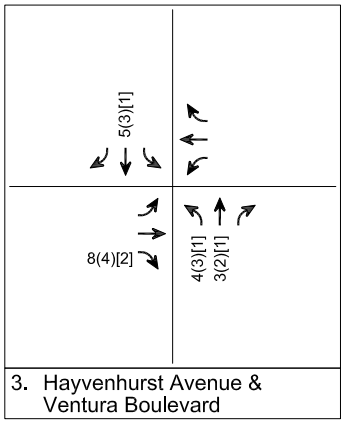
N
Not to Scale



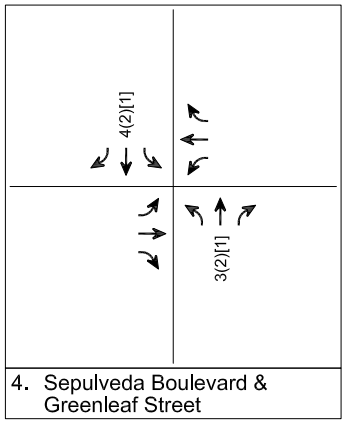
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



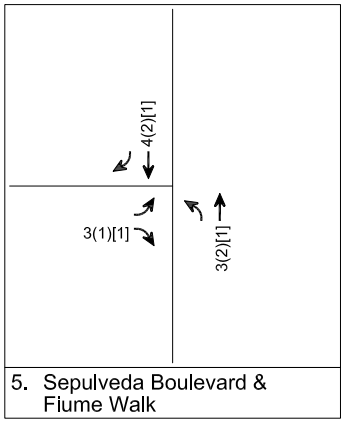
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



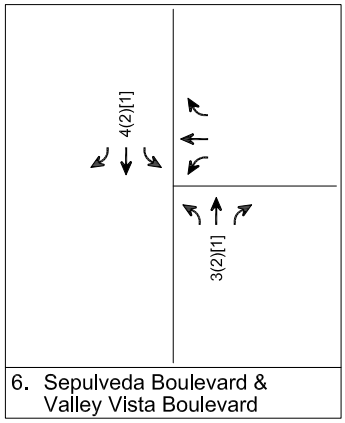
3. Hayvenhurst Avenue & Ventura Boulevard



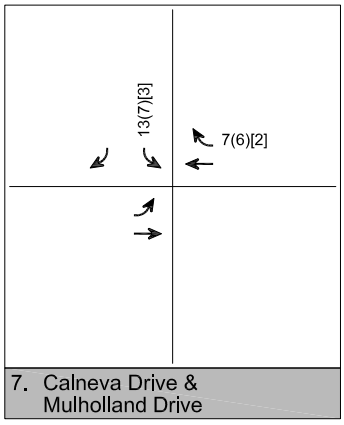
4. Sepulveda Boulevard & Greenleaf Street



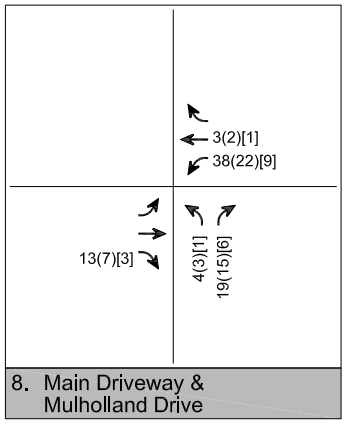
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



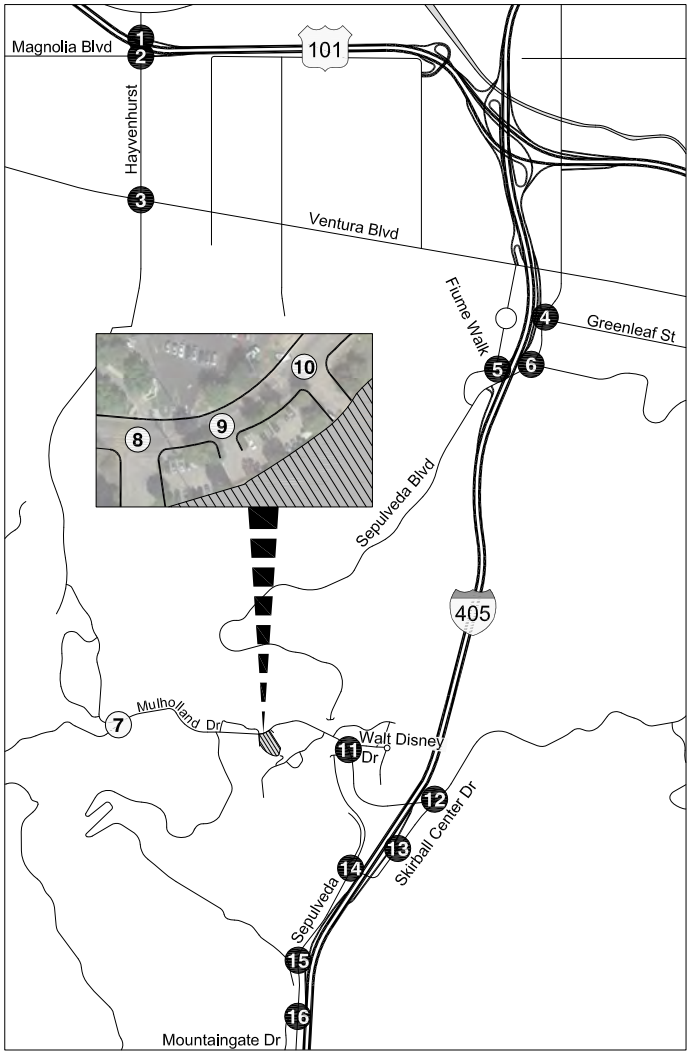
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

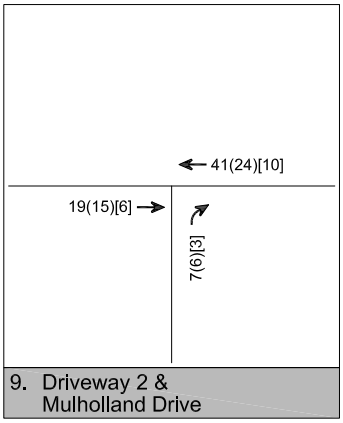
FIGURE
9



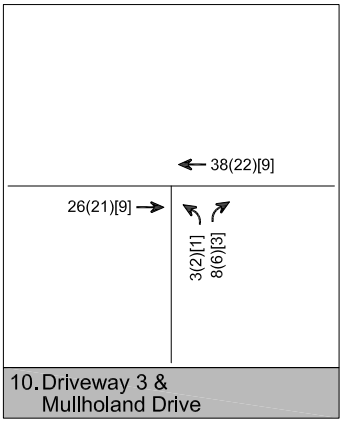
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes

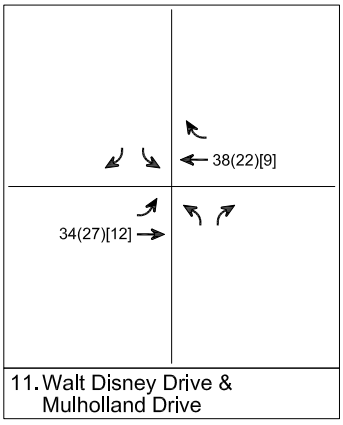
N
Not to Scale



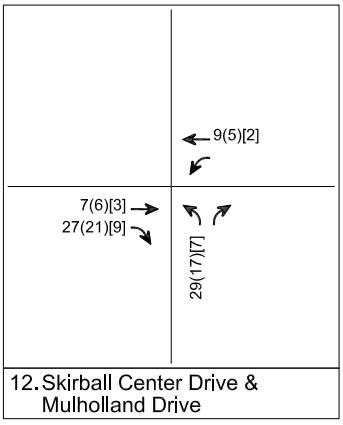
9. Driveway 2 & Mulholland Drive



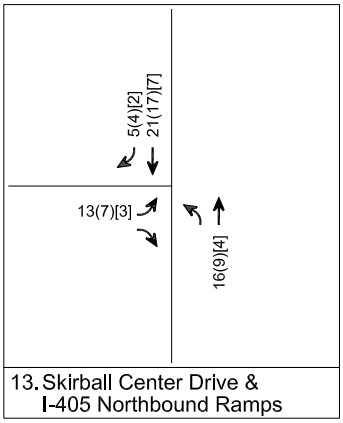
10. Driveway 3 & Mullholand Drive



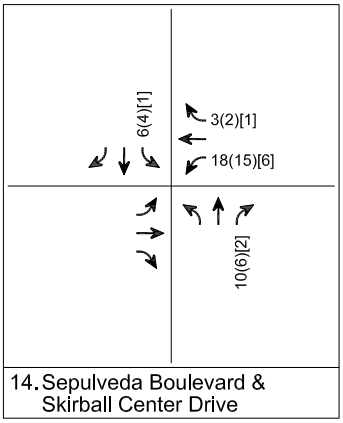
11. Walt Disney Drive & Mulholland Drive



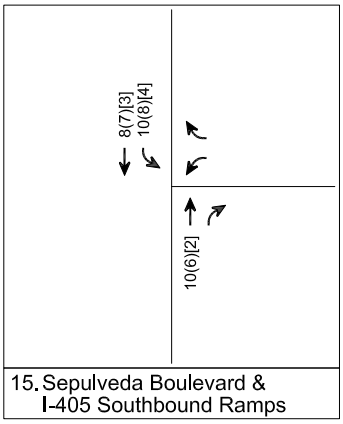
12. Skirball Center Drive & Mulholland Drive



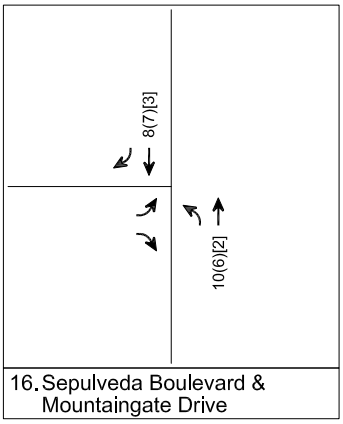
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9 (CONT.)

TABLE 7
PROJECT TRIP GENERATION ESTIMATES
MIRMAN SCHOOL

TRIP GENERATION RATES [a]											
Land Use	**ITE Land Use**	**Rate**	**A.M. Peak Hour**			**School P.M. Peak Hour** [b]			**Commuter P.M. Peak Hour** [c]		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Private School (K-8)	534	per student	55%	45%	0.91	47%	53%	0.62	46%	54%	0.26

TRIP GENERATION ESTIMATES											
Land Use	**ITE Land Use**	**Size**	**A.M. Peak Hour**			**School P.M. Peak Hour** [c]			**Commuter P.M. Peak Hour** [d]		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Existing Enrollment											
Private School (K-8)	534	330 students	(165)	(135)	(300)	(96)	(109)	(205)	(40)	(46)	(86)
Proposed Enrollment											
Private School (K-8)	534	430 students	215	176	391	125	142	267	52	60	112
NET NEW PROJECT TRIPS			**50**	**41**	**91**	**29**	**33**	**62**	**12**	**14**	**26**

Notes:

[a] Trip generation rates from *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.

[b] The School PM peak hour generally occurs between 3:00 and 4:00 PM due to the student dismissal schedule. This peak hour coincides with the PM peak hour of the generator (i.e., the school). Thus, for the school uses, the peak hour of generator trip generation rates were utilized to forecast the traffic volumes during the School PM peak hour.

[c] The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

Chapter 7
Existing with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to existing conditions. The analysis year of 2019 corresponds with the Existing Conditions data and analysis presented in Chapter 4. The existing conditions are defined by the existing traffic volumes, roadways, and intersection configurations that existed the time of the issuance of the MOU (August 2019). The Existing with Project Conditions reflect existing conditions with the addition of Project traffic.

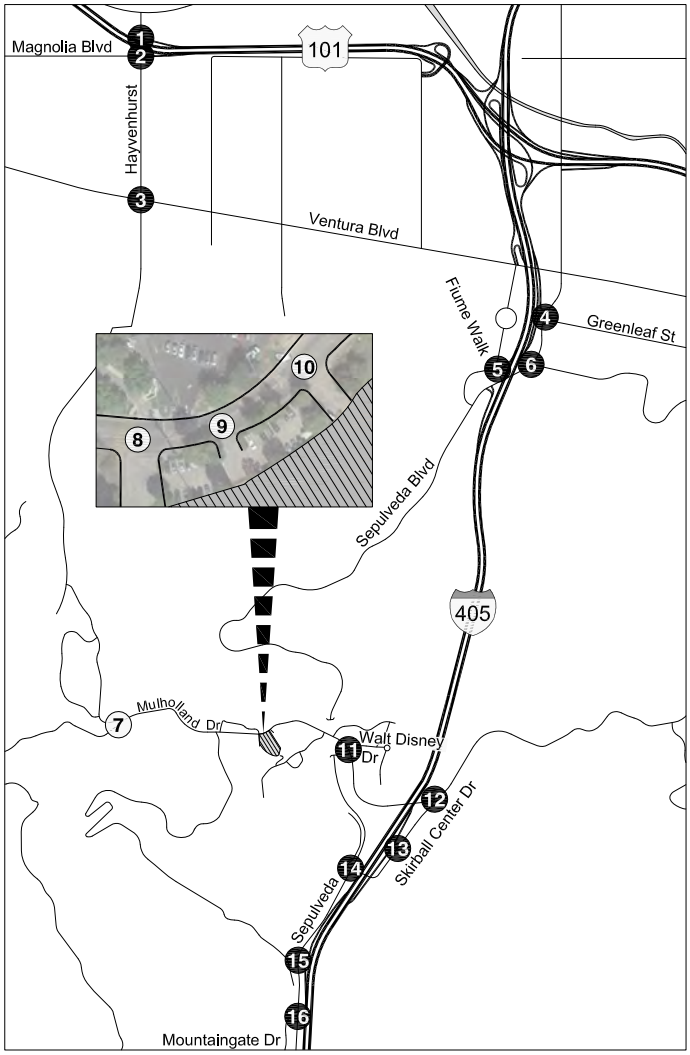
EXISTING WITH PROJECT TRAFFIC VOLUMES

The Project-only peak hour traffic volumes described in Chapter 6 and shown in Figure 9 were added to the existing peak hour traffic volumes shown in Figure 4. The resulting volumes are illustrated in Figure 10 and represent Existing with Project Conditions after development of the Project under existing conditions.

EXISTING WITH PROJECT INTERSECTION LEVELS OF SERVICE

Table 8 summarizes the results of the Existing with Project Conditions during the weekday commuter/school morning, school afternoon, and commuter afternoon peak hours for the 12 signalized study intersections. As shown in Table 8, nine of the 12 signalized study intersections are expected to continue to operate at LOS D or better during all analyzed peak hours under Existing with Project Conditions. The remaining three intersections are anticipated to continue to operate at LOS E or F during at least one of the analyzed peak hours. No significant Project impacts would occur at any of the intersections.

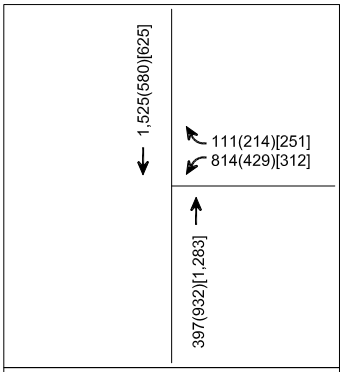
The LOS calculation worksheets are provided in Appendix E.



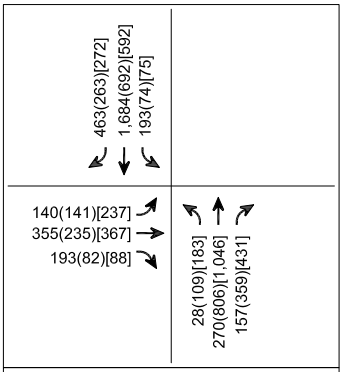
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

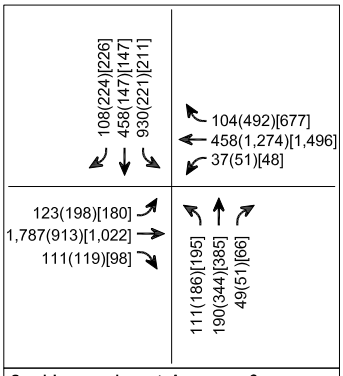
N
Not to Scale



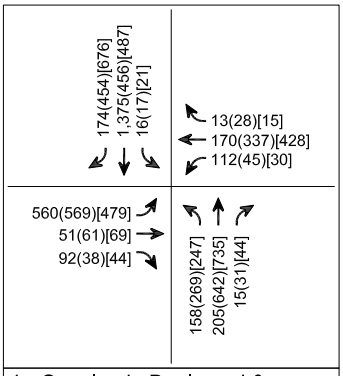
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



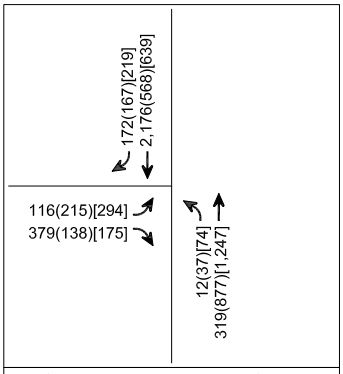
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



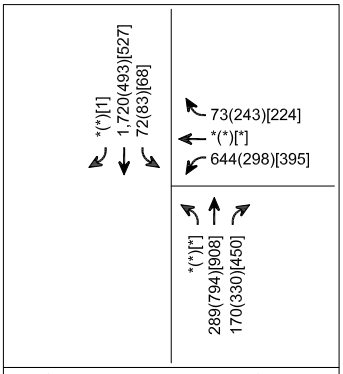
3. Hayvenhurst Avenue & Ventura Boulevard



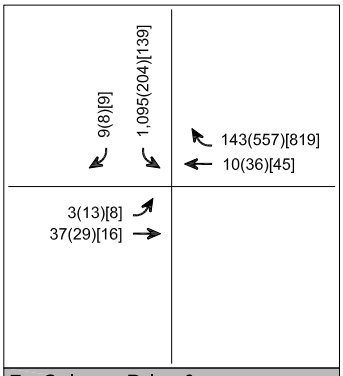
4. Sepulveda Boulevard & Greenleaf Street



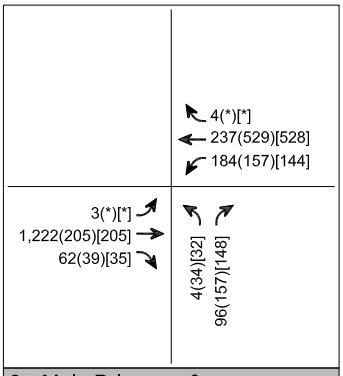
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



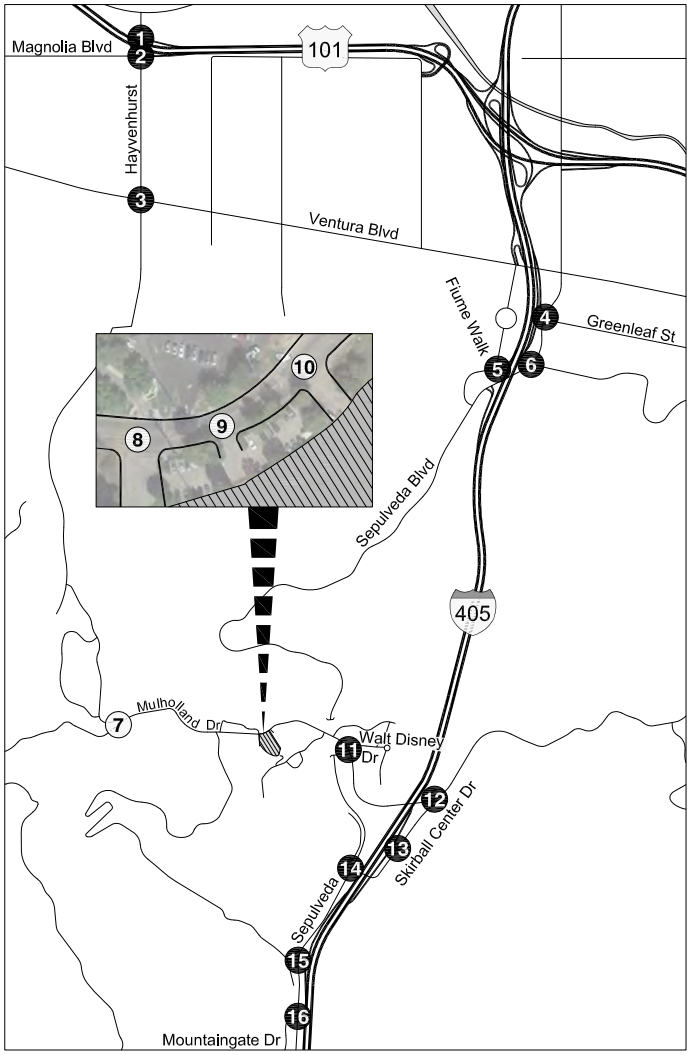
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

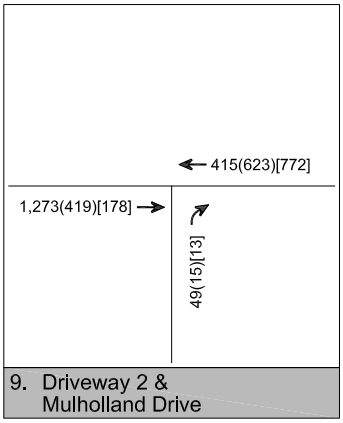
FIGURE 10



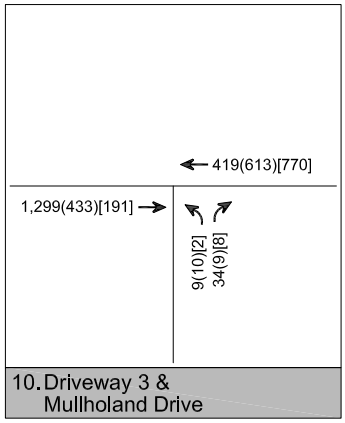
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

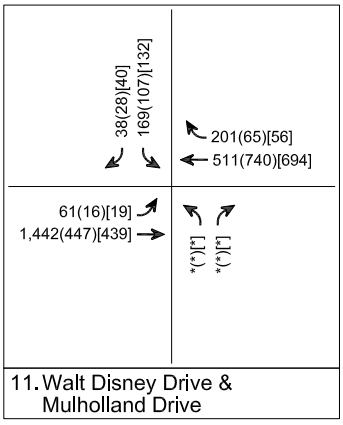
N
Not to Scale



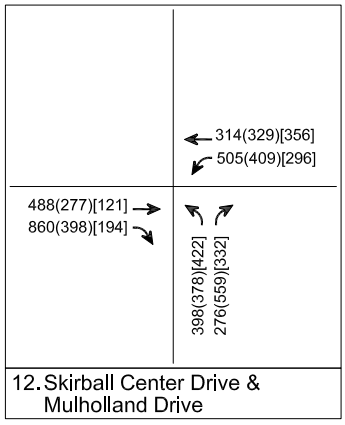
9. Driveway 2 & Mulholland Drive



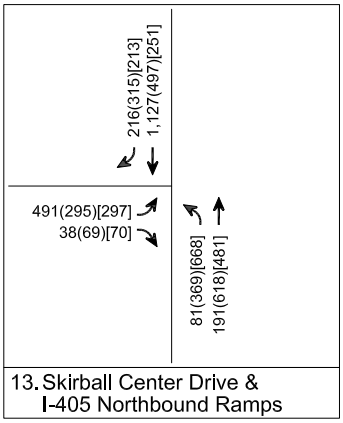
10. Driveway 3 & Mullholand Drive



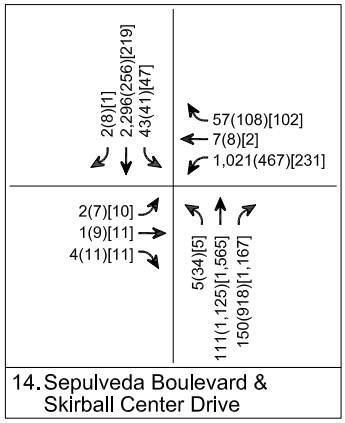
11. Walt Disney Drive & Mulholland Drive



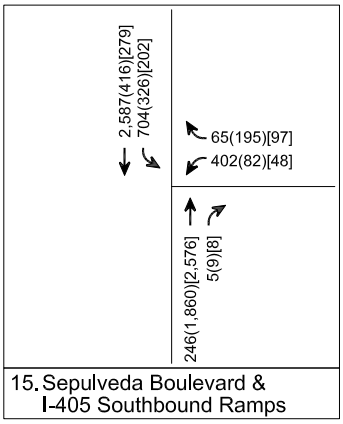
12. Skirball Center Drive & Mulholland Drive



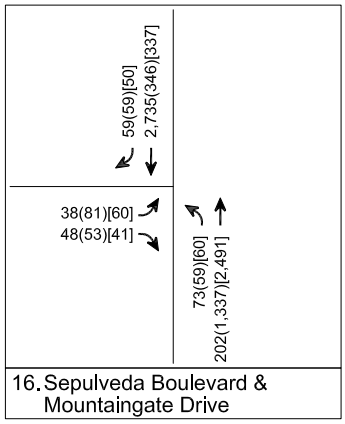
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10 (CONT.)

TABLE 8
EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Existing Conditions		Existing with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.405	A	0.405	A	0.000	NO
		School PM	0.250	A	0.250	A	0.000	NO
		PM	0.517	A	0.517	A	0.000	NO
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.805	D	0.807	D	0.002	NO
		School PM	0.361	A	0.361	A	0.000	NO
		PM	0.661	B	0.661	B	0.000	NO
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.843	D	0.847	D	0.004	NO
		School PM	0.601	B	0.604	B	0.003	NO
		PM	0.775	C	0.777	C	0.002	NO
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.736	C	0.737	C	0.001	NO
		School PM	0.769	C	0.770	C	0.001	NO
		PM	0.794	C	0.795	C	0.001	NO
5.	Sepulveda Boulevard & Fiume Walk	AM	0.601	B	0.602	B	0.001	NO
		School PM	0.256	A	0.256	A	0.000	NO
		PM	0.398	A	0.398	A	0.000	NO
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.713	C	0.714	C	0.001	NO
		School PM	0.456	A	0.457	A	0.001	NO
		PM	0.498	A	0.499	A	0.001	NO
11.	Walt Disney Drive & Mulholland Drive	AM	0.459	A	0.471	A	0.012	NO
		School PM	0.456	A	0.472	A	0.016	NO
		PM	0.445	A	0.452	A	0.007	NO
12.	Skirball Center Drive & Mulholland Drive	AM	0.839	D	0.858	D	0.019	NO
		School PM	0.517	A	0.527	A	0.010	NO
		PM	0.351	A	0.355	A	0.004	NO
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.648	B	0.663	B	0.015	NO
		School PM	0.438	A	0.447	A	0.009	NO
		PM	0.693	B	0.698	B	0.005	NO
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.109	F	1.115	F	0.006	NO
		School PM	0.602	B	0.609	B	0.007	NO
		PM	0.796	C	0.798	C	0.002	NO
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.087	F	1.090	F	0.003	NO
		School PM	0.749	C	0.753	C	0.004	NO
		PM	0.950	E	0.952	E	0.002	NO
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.923	E	0.926	E	0.003	NO
		School PM	0.399	A	0.401	A	0.002	NO
		PM	0.797	C	0.798	C	0.001	NO

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Chapter 8
Future with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to Future without Project (cumulative) Conditions. The analysis year of 2025 corresponds to the Future without Project analysis developed in Chapter 5. All future background traffic growth and transportation infrastructure improvements described in Chapter 5 are assumed in this analysis.

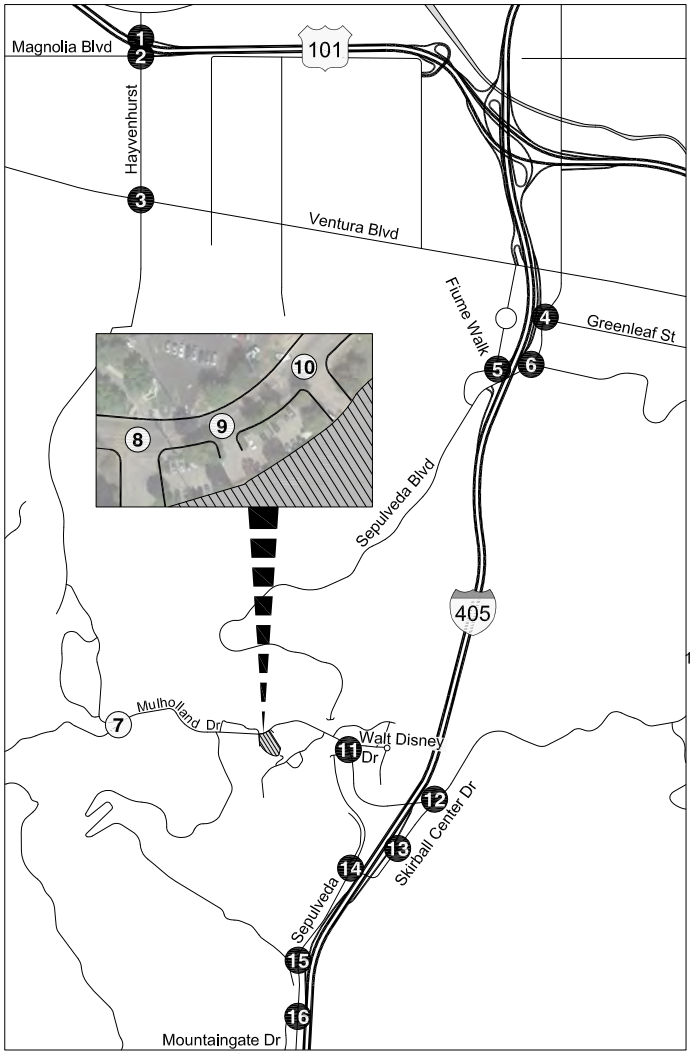
FUTURE WITH PROJECT TRAFFIC VOLUMES

The Project-only peak hour traffic volumes described in Chapter 6 and shown in Figure 9 and were added to the Future without Project peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 11 and represent Future with Project Conditions after development of the Project.

FUTURE WITH PROJECT INTERSECTION LEVELS OF SERVICE

Table 9 summarizes the results of the Future with Project Conditions during the weekday commuter/school morning, school afternoon, and commuter afternoon peak hours for the 12 signalized study intersections. As shown in Table 9, eight of the 12 signalized study intersections are anticipated to continue to operate at LOS D or better during all analyzed peak hours under Future with Project Conditions. The remaining four intersections are anticipated to continue to operate at LOS E or F during at least one of the analyzed peak hours. No significant Project impacts would occur at any of the intersections.

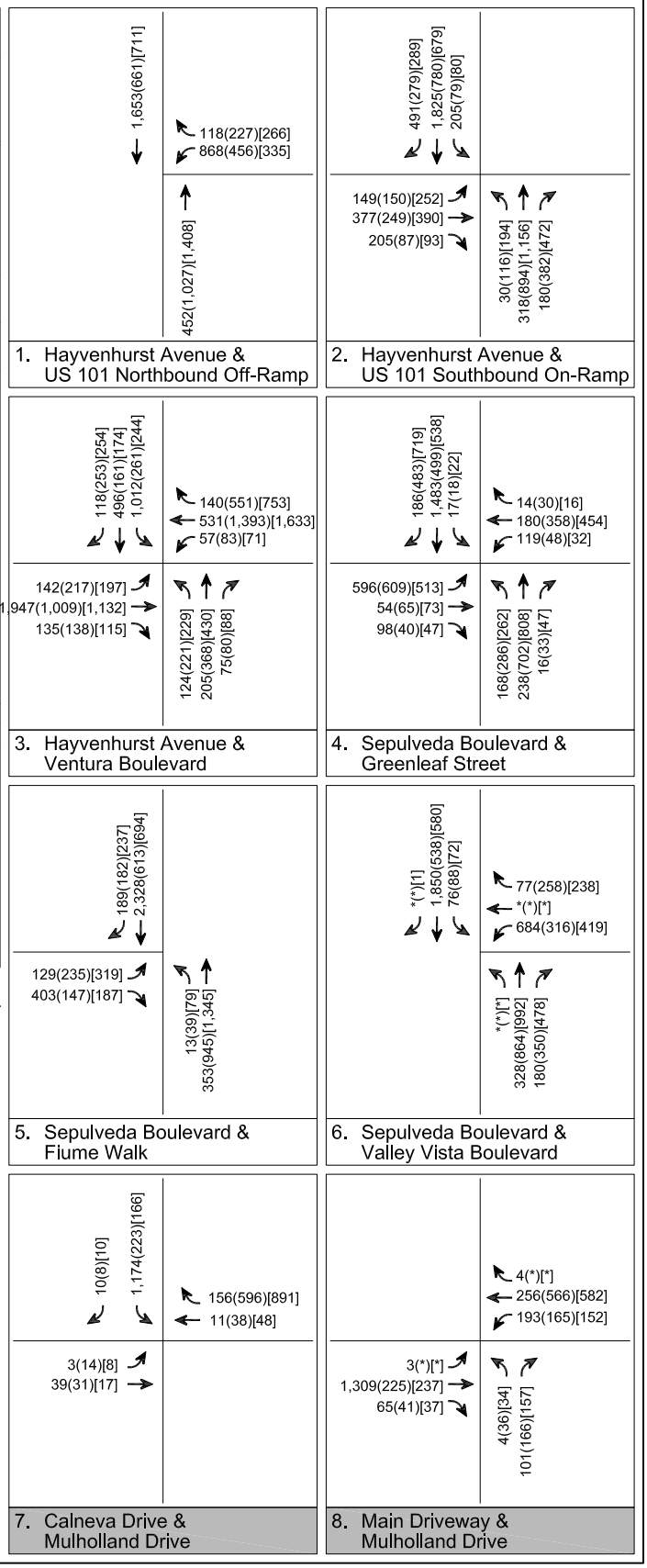
The LOS calculation worksheets are provided in Appendix E.



LEGEND

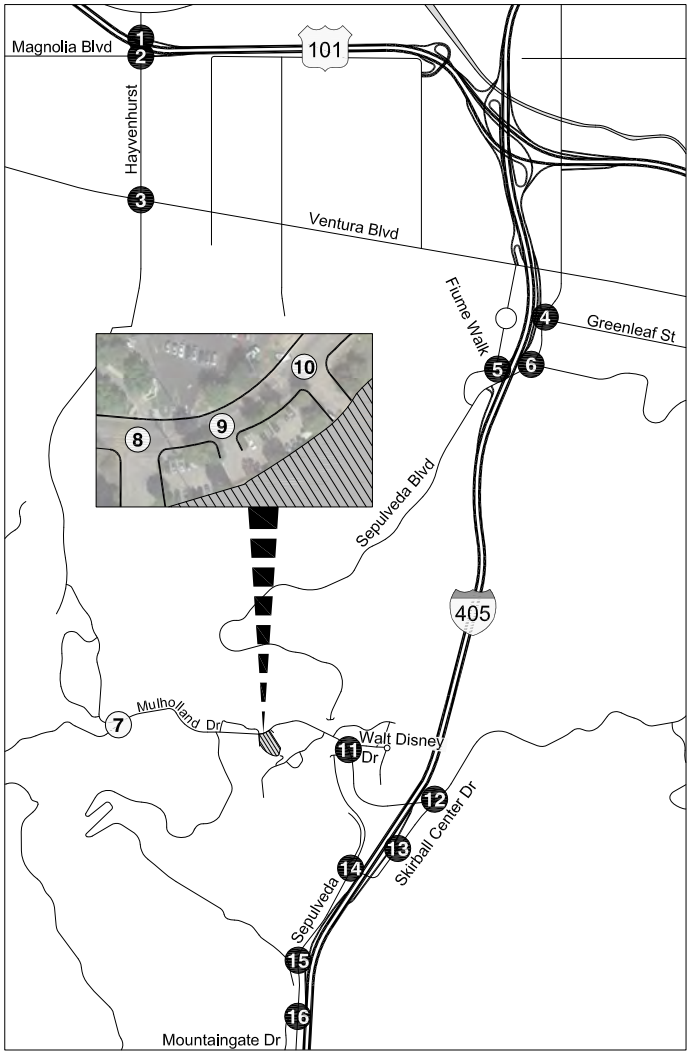
- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

N
Not to Scale



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

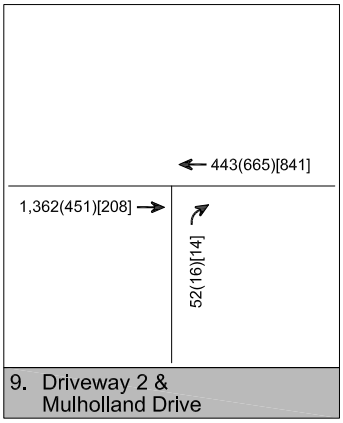
FIGURE 11



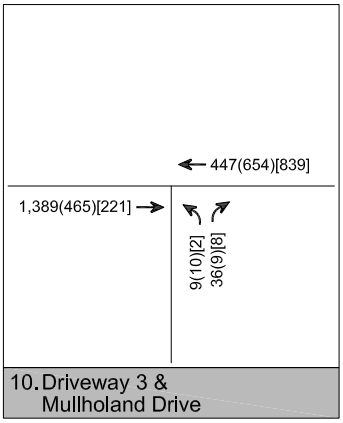
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- X(X)[X] AM(School PM)[PM] Peak Hour Traffic Volumes
- * Negligible Volume

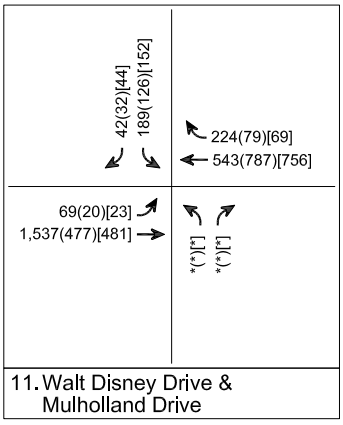
N
Not to Scale



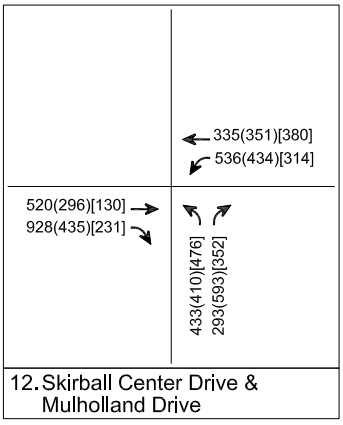
9. Driveway 2 & Mulholland Drive



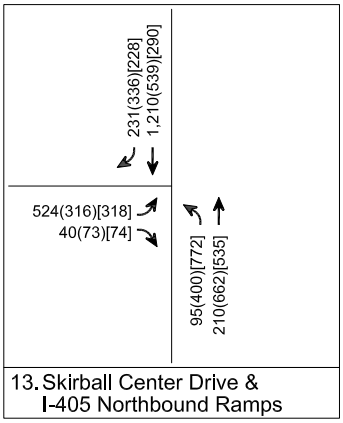
10. Driveway 3 & Mullholand Drive



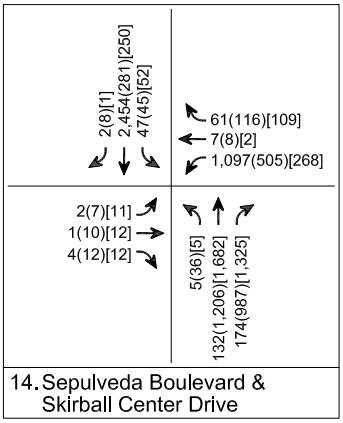
11. Walt Disney Drive & Mulholland Drive



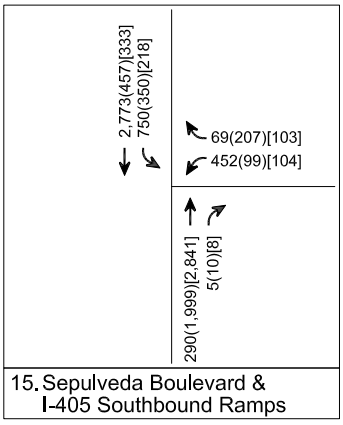
12. Skirball Center Drive & Mulholland Drive



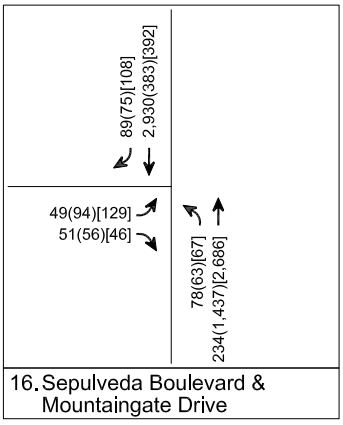
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

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

FIGURE
11 (CONT.)

TABLE 9
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue &	AM	0.446	A	0.446	A	0.000	NO
	US 101 Northbound Off-Ramp	School PM	0.279	A	0.279	A	0.000	NO
		PM	0.568	A	0.568	A	0.000	NO
* 2.	Hayvenhurst Avenue &	AM	0.816	D	0.818	D	0.002	NO
	Magnolia Boulevard/US 101 Southbound On-Ramp	School PM	0.398	A	0.398	A	0.000	NO
		PM	0.719	C	0.719	C	0.000	NO
* 3.	Hayvenhurst Avenue &	AM	0.903	E	0.905	E	0.002	NO
	Ventura Boulevard	School PM	0.672	B	0.675	B	0.003	NO
		PM	0.863	D	0.863	D	0.000	NO
4.	Sepulveda Boulevard &	AM	0.741	C	0.743	C	0.002	NO
	I-405 / US 101 Ramps / Greanleaf Street	School PM	0.828	D	0.829	D	0.001	NO
		PM	0.856	D	0.856	D	0.000	NO
5.	Sepulveda Boulevard &	AM	0.647	B	0.647	B	0.000	NO
	Fiume Walk	School PM	0.285	A	0.286	A	0.001	NO
		PM	0.438	A	0.438	A	0.000	NO
* 6.	Sepulveda Boulevard &	AM	0.718	C	0.720	C	0.002	NO
	Valley Vista Boulevard	School PM	0.498	A	0.499	A	0.001	NO
		PM	0.541	A	0.542	A	0.001	NO
11.	Walt Disney Drive &	AM	0.464	A	0.475	A	0.011	NO
	Mulholland Drive	School PM	0.499	A	0.515	A	0.016	NO
		PM	0.487	A	0.494	A	0.007	NO
12.	Skirball Center Drive &	AM	0.845	D	0.864	D	0.019	NO
	Mulholland Drive	School PM	0.560	A	0.571	A	0.011	NO
		PM	0.384	A	0.388	A	0.004	NO
* 13.	Skirball Center Drive &	AM	0.654	B	0.668	B	0.014	NO
	I-405 Northbound Ramps	School PM	0.483	A	0.492	A	0.009	NO
		PM	0.755	C	0.759	C	0.004	NO
14.	Sepulveda Boulevard &	AM	1.116	F	1.123	F	0.007	NO
	Skirball Center Drive	School PM	0.656	B	0.663	B	0.007	NO
		PM	0.863	D	0.865	D	0.002	NO
* 15.	Sepulveda Boulevard &	AM	1.095	F	1.098	F	0.003	NO
	I-405 Southbound Ramps	School PM	0.811	D	0.815	D	0.004	NO
		PM	1.035	F	1.037	F	0.002	NO
16.	Sepulveda Boulevard &	AM	0.929	E	0.932	E	0.003	NO
	Mountaingate Drive	School PM	0.439	A	0.441	A	0.002	NO
		PM	0.861	D	0.862	D	0.001	NO

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Chapter 9
Unsignalized Intersection Analysis

As described in Chapter 3, the four unsignalized study intersections were analyzed using the HCM methodology to determine the overall intersection delay under both Existing and Future Conditions. Based on *Transportation Impact Study Guidelines,* if based on the estimated overall intersection delay, the unsignalized intersection is projected to operate at LOS E or F under Future with Project Conditions, a signal warrant analysis should be conducted to evaluate for the potential installation of a new traffic signal. The signal warrant analysis, if necessary, would follow the guidelines set forth in *Manual of Policies and Procedures* (LADOT, December 2008) and *California Manual on Uniform Traffic Control Devices* (Caltrans, 2012) (California MUTCD).

INTERSECTION LEVELS OF SERVICE

Tables 10 and 11 summarize the weekday morning and afternoon peak hour delays and corresponding LOS for the four unsignalized intersections under Existing and Future Conditions. As shown in Tables 10-11, all four unsignalized intersections are anticipated to operate at LOS E or F during at least one of the analyzed peak hours under both Existing and Existing with Project Conditions as well as under both Future and Future with Project Conditions. Therefore, further traffic signal warrant analyses were conducted.

SIGNAL WARRANT ANALYSIS

All four unsignalized study intersections operate at LOS E or F under Future with Project Conditions and were, therefore, subject to a signal warrant analysis to determine whether the projected volumes at the intersections warrant the installation of a traffic signal control:

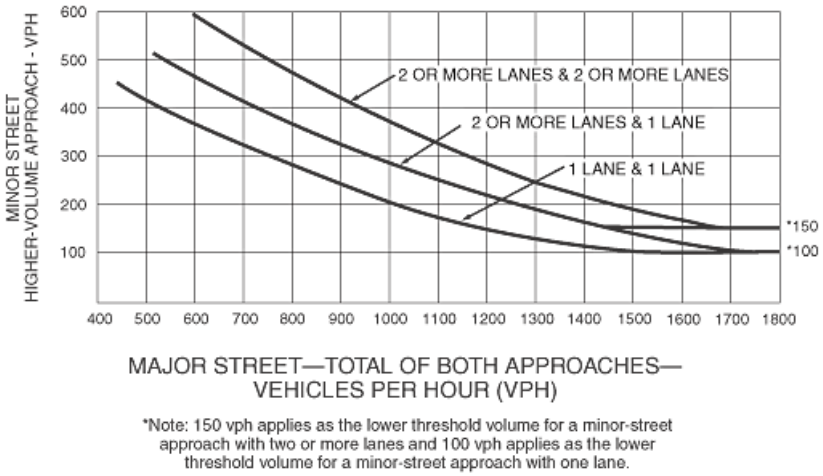
7. Calneva Drive & Mulholland Drive (morning peak hour)
8. Main Driveway & Mulholland Drive (morning peak hour)
9. Driveway 2 & Mulholland Drive (morning peak hour)
10. Driveway 3 & Mulholland Drive (morning peak hour)

The intersections were analyzed according to Warrant 3 (peak hour). The following methodologies, as quoted from the California MUTCD, were used to evaluate signal warrants at the intersection:

Warrant 3, Peak-Hour Vehicular Volume Warrant

Signal Warrant 3 is intended for use at a location where traffic conditions are such that for a minimum of one hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. Combined volumes for both approaches of the major street are included while only the volume from the higher minor street approach is included. At an intersection with a high volume of left-turn traffic from the major street, the analysis may include the major street left-turn volumes plus the minor street approach volume as the total "minor street" volume. The warrant is satisfied if traffic volumes for any one hour of an average day exceed the plotted lines shown in the following figure.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Tables 10 and 11 summarize the results of the signal warrant analysis for the four unsignalized intersections. Detailed signal warrant worksheets are available in Appendix G. As shown, the unsignalized intersections of Calneva Drive & Mulholland Drive (Intersection #7) and Main Driveway & Mulholland Drive (Intersection #8) meet the minimum peak hour traffic volume threshold of Warrant 3 under Existing and Future Conditions without and with the addition of Project traffic. Driveway 2 & Mulholland Drive (Intersection #9) and Driveway 3 & Mulholland Drive (Intersection #10) do not meet the minimum peak hour traffic volume threshold of Warrant 3.

The satisfaction of the warrant threshold alone, however, does not in itself dictate the requirement of the installation of a traffic control signal. That decision is made by the affected jurisdiction (e.g., LADOT or Caltrans), which would consider additional factors such as spacing with adjacent intersections, interruption of traffic flow on the major streets, etc.

TABLE 10
EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
UNSIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions			Existing with Project Conditions		
			Delay	LOS	Meets Warrants	Delay	LOS	Meets Warrants
7. [a]	Calneva Drive & Mulholland Drive	AM	66.3	F	**YES**	69.4	F	**YES**
		School PM	18.1	C		18.6	C	
		PM	24.2	C		29.0	D	
8.	Main Driveway & Mulholland Drive	AM	348.4	F	**YES**	362.6	F	**YES**
		School PM	21.7	C		23.0	C	
		PM	21.7	C		22.2	C	
9. [a]	Driveway 2 & Mulholland Drive	AM	36.3	E	NO	38.6	E	NO
		School PM	11.4	B		11.6	B	
		PM	9.4	A		9.5	A	
10. [a]	Driveway 3 & Mulholland Drive	AM	41.5	E	NO	47.1	E	NO
		School PM	14.9	B		14.4	B	
		PM	10.2	B		10.3	B	

[a] Worst-case delay reported at 2-way stop-controlled or uncontrolled location.

TABLE 11
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
UNSIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions			Future with Project Conditions		
			Delay	LOS	Meets Warrants	Delay	LOS	Meets Warrants
7. [a]	Calneva Drive & Mulholland Drive	AM School PM PM	116.9 20.3 39.3	F C E	**YES**	122.5 21.0 40.4	F C E	**YES**
8.	Main Driveway & Mulholland Drive	AM School PM PM	404.0 28.1 32.7	F D D	**YES**	419.4 30.1 33.6	F D D	**YES**
9. [a]	Driveway 2 & Mulholland Drive	AM School PM PM	43.2 11.8 9.6	E B A	NO	46.5 12.0 9.7	E B A	NO
10. [a]	Driveway 3 & Mulholland Drive	AM School PM PM	50.1 15.7 10.5	F C B	NO	58.2 15.1 10.7	F C B	NO

[a] Worst-case delay reported at 2-way stop-controlled or uncontrolled location.

Chapter 10

Congestion Management Program Analysis

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Project Site, in accordance with the procedures outlined in *2010 Congestion Management Program for Los Angeles County* (Metro, 2010) (CMP) guidelines.

The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program and State Transportation Improvement Program processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. Additionally, it requires a review of potential impacts to the regional transit system.

Within Los Angeles County, Metro is responsible for planning and managing vehicular congestion and coordinating regional transportation policies. However, on August 28, 2019, Metro issued a letter regarding the dissolution of the CMP in Los Angeles County. As set forth in the letter, the County of Los Angeles and a majority of cities in the county, including the City, have elected to be exempt from the CMP. Thus, the provisions of the CMP no longer apply to any of the 89 local jurisdictions in Los Angeles County, including the City. As specified in Metro's letter:

- Local jurisdictions are no longer required to prepare CMP biennial Highway Monitoring Reports
- Local jurisdictions are no longer required to prepare CMP annual Local Development Reports
- Conformance with the CMP is no longer an eligibility requirement to participate in the Metro Call for Projects or any other discretionary funding program

- Local jurisdictions may retain TDM Ordinances that were adopted to conform with the CMP to augment or meet their local needs
- A CMP Traffic Impact Analysis is no longer required in Environmental Impact Reports
- Local jurisdictions will continue to receive Section 2105 gas tax funds.

As previously noted, this study follows the 2016 guidelines as part of a supplemental analysis; therefore, a CMP analysis was performed and is included in this chapter.

TIA GUIDELINES

The CMP requires that TIAs be performed on three types of facilities:

- Arterial Intersections
- Mainline Freeway Segments
- The Public Transit System

The CMP identifies specific arterial and freeway mainline locations for analysis.

Arterial Monitoring Intersection TIA Guidelines

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. For the purposes of a more conservative analysis, the requirement for further analysis of arterial monitoring locations during the weekday afternoon peak hour was based on the trips generated during the school peak hour, as the trips are higher than the trips generated during the commuter peak hour. The CMP analysis uses the same CMA methodology as used in the preceding chapters for intersections in the City to determine intersection V/C ratio and LOS. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in

intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F (V/C > 1.00) after the addition of project traffic.

Mainline Freeway Monitoring Location TIA Guidelines

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday morning or afternoon peak hour. Similar to the arterial monitoring intersections, the requirement for further analysis of the mainline freeway monitoring locations during the weekday afternoon peak hour was based on the trips generated during the school peak hour, as the trips are higher than the trips generated during the commuter peak hour. The CMP analysis uses a demand-to-capacity (D/C) ratio to determine facility LOS based on capacity identified in Appendix A of the CMP. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection D/C ratio of 0.02 or greater to a facility projected to operate at LOS F (D/C > 1.00) after the addition of project traffic.

Transit Impact Review Guidelines

The CMP requires that a transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system.

ARTERIAL MONITORING STATION ANALYSIS

The CMP identifies an arterial monitoring station at the intersection of Ventura Boulevard & Sepulveda Boulevard, approximately 2.0 miles northeast of the Project Site. Morning and afternoon peak hour traffic for this intersection outside the Study Area was based on the number

of trips entering and leaving the Study Area (based on Figure 9) in the direction of the outlying CMP arterial monitoring intersections, conservatively assuming there would be no diverging trips.

Based on this methodology, the Project would add seven trips during the commuter morning peak hour and two trips during the commuter afternoon peak hour to the arterial monitoring location. Therefore, the Project would add fewer than 50 peak hour trips at the arterial monitoring intersection nearest the Project Study Area, and the Project's CMP arterial intersection impacts are considered to be less than significant, and no further analysis is required.

FREEWAY SEGMENT ANALYSIS

The CMP identifies a freeway mainline monitoring location on I-405 south of Mulholland Drive within the vicinity of the Project Site. Assuming there would be no diverging trips (e.g., any Project trips leaving the Study Area were assumed to continue in the same direction without exiting the freeway) and based on the distribution of Project trips illustrated in Figure 9, the number of peak hour Project trips expected at the freeway mainline monitoring location is as follows:

Intersection	Peak Hour Trips		Requires CMP Analysis?
	AM	PM	
I-405 south of Mulholland Drive			
Northbound	13	3	NO
Southbound	10	4	NO

The Project would not add 150 trips in either direction during either peak hour. Therefore, no additional freeway analysis is required under the CMP criteria for existing or future conditions and no significant CMP impact would occur.

REGIONAL TRANSIT IMPACT ANALYSIS

As detailed in Chapter 4, there is no adjacent transit stop/service in the vicinity of the Project Site (i.e., Mulholland Drive). Therefore, the Project is not anticipated to contribute to a significant regional transit impact.

Chapter 11
Project Site Access and Circulation

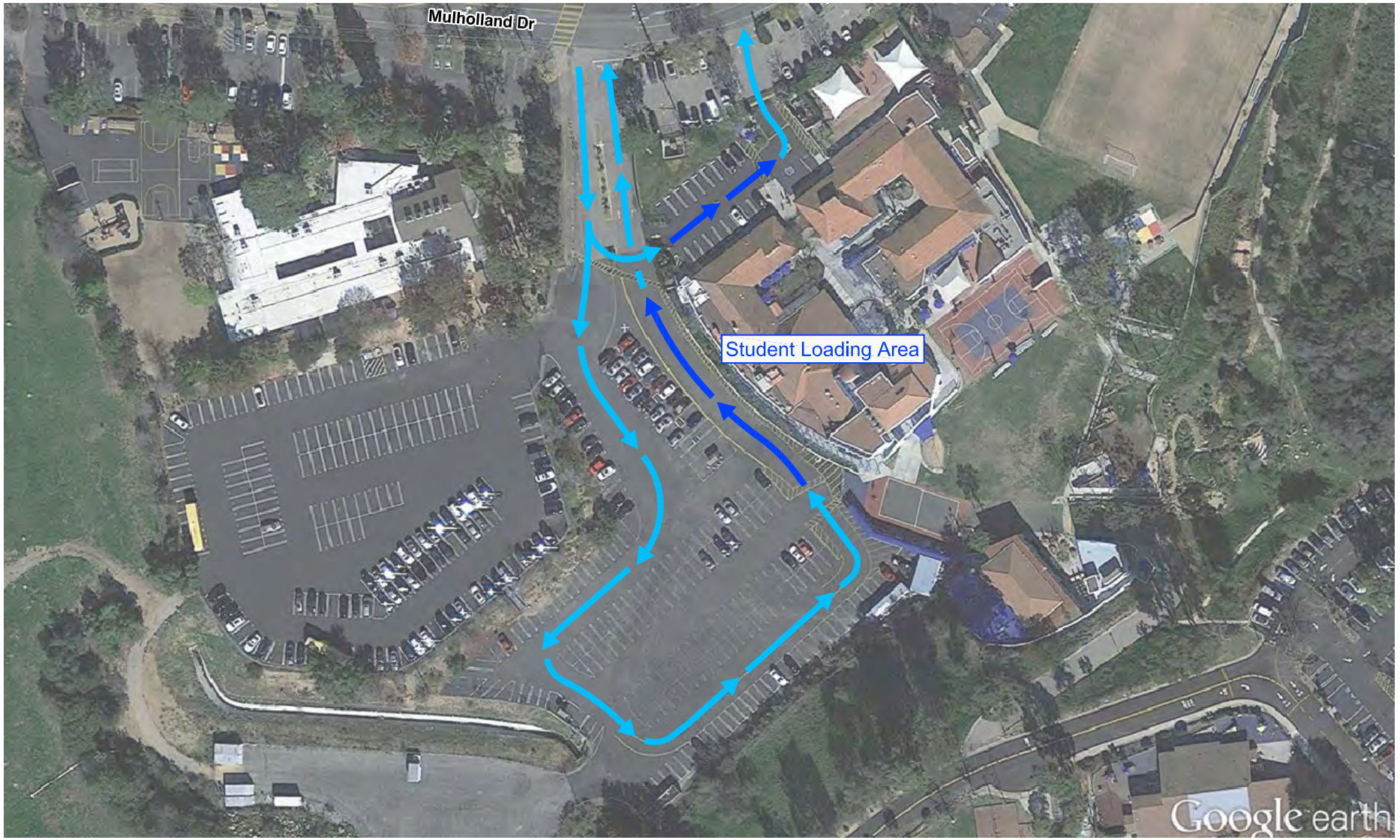
This chapter summarizes site access and internal circulation of the Project Site.

SITE ACCESS AND CIRCULATION

The existing driveways that provide access for the School will be maintained in their current locations and will continue to provide access to the campus parking areas. Vehicular access to the School is provided via driveways along Mulholland Drive, with primary access via the Main Driveway. As shown in Figure 12, all student pick-up and drop-off operations occur internal to the Project Site within the on-site parking area, which provides approximately 1,300 feet of queuing space. The on-site parking area provides adequate queuing space such that there will not be overflow into the public street system.

As discussed in Chapter 9 and shown in Tables 10 and 11, the Main Driveway of the School warrants the installation of a traffic signal based on existing volumes and will continue to meet signal warrants in the future with Project traffic. To provide a safer ingress and egress to the School, a traffic signal should be installed controlling the intersection of Mulholland Drive and the Main Driveway.

To reduce the potential delays that could be caused by a new traffic signal on Mulholland Drive, the signal should be a fully actuated signal that “rests in green” and would only stop Mulholland Drive traffic when a pedestrian activated the push button to cross Mulholland Drive or when a vehicle was detected on the Main Driveway, the Church Driveway, or the left-turn lanes into either driveway. In this way, the delay to Mulholland Drive traffic would be minimized.



LEGEND

Pick-Up / Drop-Off Circulation

Loading Zones

N
Not to Scale

STUDENT PICK-UP / DROP-OFF CIRCULATION

FIGURE 12

Chapter 12

Summary and Conclusions

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

- According to the VMT Calculator, the Project would generate 234 net new daily trips, which does not exceed the 250 net new daily trip screening criteria. Accordingly, the Project would not result in any significant VMT transportation impacts and no mitigation measures are required. Further, the TAG states that no transportation assessment is required.

- For informational purposes, the Study analyzed the transportation impacts at a total of 16 study intersections. Under Existing Conditions, nine of the 16 study intersections operate at LOS D or better during the weekday commuter/school morning, school afternoon, and commuter afternoon peak hours.

- Under Future without Project Conditions, nine of the 16 study intersections are projected to operate at LOS D or better during all analyzed peak hours. The remaining seven intersections are projected to operate at LOS E or F during at least one of the analyzed peak hours.

- The Project is estimated to generate a total of 91 commuter/school morning peak hour trips, 62 school afternoon peak hour trips, and 26 commuter afternoon peak hour trips.

- Existing with Project Conditions in the Study Area were analyzed for the existing year of 2019. Based on the previous LADOT level of service significance criteria, the Project is not anticipated to result in any significant impacts at any of the study intersections under Existing with Project Conditions. Therefore, no mitigation measures would have been required using the previous requirements.

- Future traffic conditions in the Study Area were forecast for the Project buildout year of 2025. Based on previous LADOT level of service significance criteria, the Project is not anticipated to result in any significant impacts at any of the study intersections under Future with Project Conditions. Therefore, no mitigation measures would have been required using the previous requirements.

- A signal warrant analysis concluded that the installation of a traffic signal is warranted at the intersections of Calneva Drive & Mulholland Drive and Mulholland Drive & Main Driveway. A signal installation is recommended at Mulholland Drive & Main Driveway to improve the safety of the intersection.

- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP guidelines determined that the Project would not have a significant impact on the regional freeway or arterial system or the regional transit system.

- The Caltrans analysis indicated that no significant impacts are anticipated on the regional freeway system as a result of the addition of Project traffic.

References

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

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

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

California Manual on Uniform Traffic Control Devices, California Department of Transportation, 2014.

Caltrans Strategic Management Plan 2015-2020, California Department of Transportation, Adopted March 2015.

California Transportation Plan 2040, California Department of Transportation, Adopted June 2016.

City of Los Angeles VMT Calculator Version 1.2, Los Angeles Department of Transportation, November 2019.

Local Development – Intergovernmental Review Program Interim Guide, California Department of Transportation, Approved September 2016.

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

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

Mulholland Scenic Parkway Specific Plan, Los Angeles Department of City Planning, May 13, 1992.

State of California Senate Bill 743, Steinberg, 2013.

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

Transportation Impact Study Guidelines, Los Angeles Department of Transportation, December 2016.

References, cont.

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

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

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

Appendix A

Memorandum of Understanding

LADOT

Transportation Assessment Memorandum of Understanding (MOU)

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

I. PROJECT INFORMATION

Project Name: Mirman School for Gifted Children

Project Address: 16180 Mulholland Dr. Los Angeles, CA 90049

Project Description: A private K-8 school proposes to increase enrollment from 330 K-8 students to 430 K-8 students.

LADOT Project Case Number: OtherWLA16-105026 Project Site Plan attached? *(Required)* ■ Yes ☐ No

TRIP GENERATION

Geographic Distribution: N 5 % S 45 % E 35 % W 15 %

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

Trip Generation Adjustments *(Exact amount of credit subject to approval by LADOT)*

	Yes	No
Transit Usage	■	☐
Transportation Demand Management	■	☐
Existing Active Land Use	■	☐
Previous Land Use	☐	■
Internal Trip	☐	■
Pass-By Trip	☐	■

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

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

	IN	OUT	TOTAL
AM Trips	50	41	91
Commuter PM Trips	12	14	26
School PM Trips	29	33	62

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2025 Ambient or CMP Growth Rate: 1 % Per Yr.

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

Map of Study Intersections/Segments attached? *(May be subject to LADOT revision after access, safety and circulation analysis)* ■ Yes ☐ No

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

IV. ACCESS ASSESSMENT

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

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

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

V. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Gibson Transportation Consulting, Inc.	Mirman School for Gifted Children
Address:	555 W. 5th Street, Suite 3375, Los Angeles, CA 90013	16180 Mulholland Drive, Los Angeles, CA 90049
Phone Number:	(213) 683-0088	(310) 476-2868
E-Mail:	rgibson@gibsontrans.com	msf@futtermanassociates.com

Approved by: x _____ _____ x _____ _____

Consultant's Representative Date LADOT Representative Date

STUDY INTERSECTIONS

1 See Table 1
2 _____
3 _____
4 _____

LADOT Proj. Case No: _____

TABLE 1
STUDY INTERSECTIONS

No	Intersection	Jurisdiction
1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	City of Los Angeles/Caltrans
2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	City of Los Angeles/Caltrans
3.	Hayvenhurst Avenue & Ventura Boulevard	City of Los Angeles
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	City of Los Angeles/Caltrans
5.	Sepulveda Boulevard & Fiume Walk	City of Los Angeles
6.	Sepulveda Boulevard & Valley Vista Boulevard	City of Los Angeles
7. [a]	Calneva Drive & Mulholland Drive	City of Los Angeles
8. [a]	Main Driveway & Mulholland Drive	City of Los Angeles
9. [a]	Driveway 2 & Mulholland Drive	City of Los Angeles
10. [a]	Driveway 3 & Mulholland Drive	City of Los Angeles
11.	Walt Disney Drive & Mulholland Drive	City of Los Angeles
12.	Skirball Center Drive & Mulholland Drive	City of Los Angeles
13.	Skirball Center Drive & I-405 Northbound Ramps	City of Los Angeles/Caltrans
14.	Sepulveda Boulevard & Skirball Center Drive	City of Los Angeles
15.	Sepulveda Boulevard & I-405 Southbound Ramps	City of Los Angeles/Caltrans
16.	Sepulveda Boulevard & Mountaingate Drive	City of Los Angeles

Note: [a] Unsignalized Intersection

TABLE 2
PROJECT TRIP GENERATION ESTIMATES
MIRMAN SCHOOL

TRIP GENERATION RATES [a]												
Land Use	**ITE Land Use**	**Rate**	**Daily**	**A.M. Peak Hour**			**School P.M. Peak Hour** [b]			**Commuter P.M. Peak Hour** [c]		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Private School (K-8)	534	per student	4.11	55%	45%	0.91	47%	53%	0.62	46%	54%	0.26

TRIP GENERATION ESTIMATES												
Land Use	**ITE Land Use**	**Size**	**Daily**	**A.M. Peak Hour**			**School P.M. Peak Hour** [c]			**Commuter P.M. Peak Hour** [d]		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Existing Enrollment												
Private School (K-8)	534	330 students	(1,356)	(165)	(135)	(300)	(96)	(109)	(205)	(40)	(46)	(86)
Proposed Enrollment												
Private School (K-8)	534	430 students	1,767	215	176	391	125	142	267	52	60	112
NET NEW PROJECT TRIPS			**411**	**50**	**41**	**91**	**29**	**33**	**62**	**12**	**14**	**26**

Notes:

[a] Trip generation rates from *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.

[b] The School PM peak hour generally occurs between 3:00 and 4:00 PM due to the student dismissal schedule. This peak hour coincides with the PM peak hour of the generator (i.e., the school). Thus, for the school uses, the peak hour of generator trip generation rates were utilized to forecast the traffic volumes during the School PM peak hour.

[c] The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

TABLE 3
RELATED PROJECTS

No	Project [a]	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Curtis School	15871 W Mulholland Drive	TDM program per conditional use permit	0	0	27	27	0	27	27
2.	Woodrise Mixed-Use	16130 Ventura Boulevard	51 apartment units with 19,400 sf retail and 1,063 sf office	1,477	10	34	44	90	50	140
3.	Hotel	15485 Ventura Boulevard	180-room hotel	932	36	25	61	35	33	68
4.	Tract 62077 Mixed-Use	15222 Ventura Boulevard	52 condominium units and 7,460 sf specialty retail	609	9	23	32	27	20	47
5.	Valley Beth Shalom Preschool	15739 Ventura Boulevard	Increase enrollment from 820 students to 1,079 students	1,000	72	63	135	48	53	101
6.	Bank	15821 Ventura Boulevard	6,115 sf bank	623	18	7	25	22	28	50
7.	Coffee Shop	15315 Dickens Street	10,000 sf coffee shop	1,300	60	60	120	70	50	120
8.	Convenience Store	15445 Ventura Boulevard	2,770 sf convenience store	721	38	40	78	26	22	48
9.	Mixed-Use	16206 Ventura Boulevard	12,880 sf mixed-use	726	34	38	72	28	19	47
10.	Apartment	16161 Ventura Boulevard	114 apartment units	758	12	46	58	46	25	71
11.	Recreational Park	2301 N Sepulveda Boulevard	Improvement to a 500-acre recreational park	1,083	6	3	9	26	17	43
12.	Apartments	4741 Libbit Avenue	46 apartment units	249	5	12	17	12	7	19
			Total:	9,478	300	378	678	430	351	781

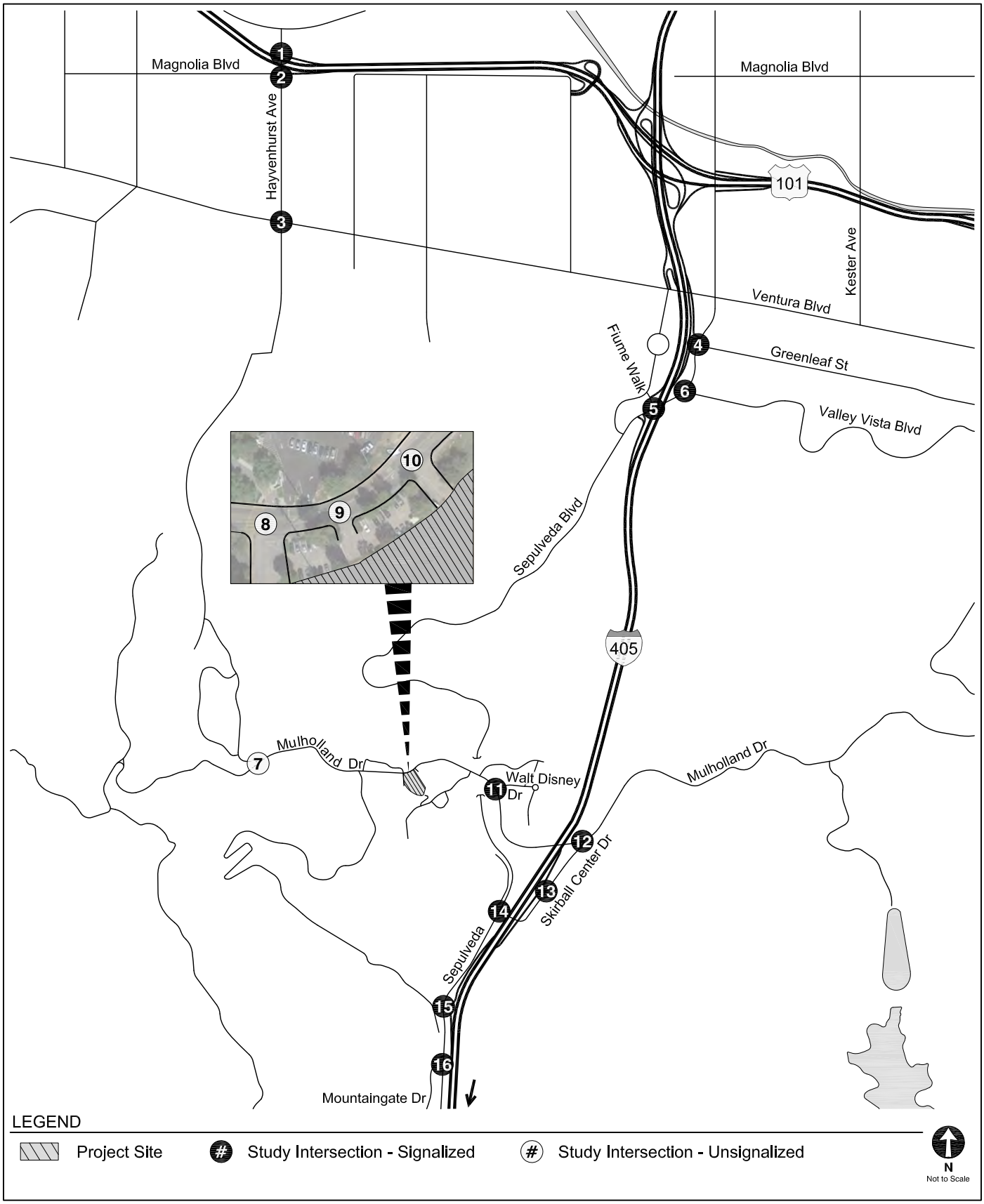
Notes
sf: square feet
[a] Related projects information provided by LADOT, August 2019.



Source: Johnson Favaro Architecture & Urban Design. September, 2017.

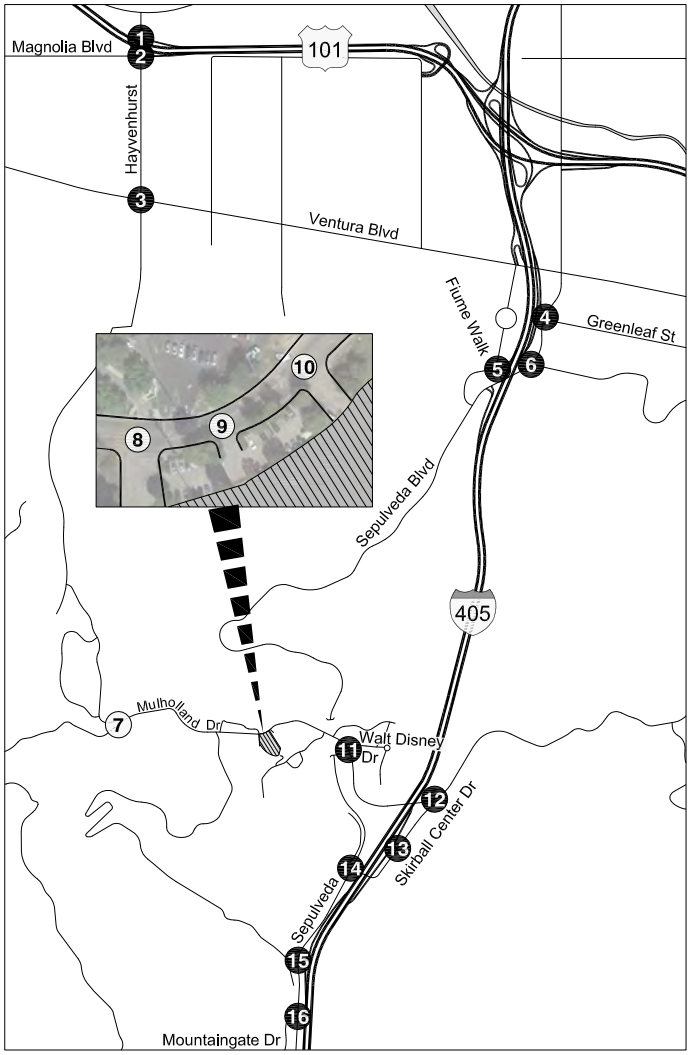
PROJECT SITE PLAN

FIGURE 1



STUDY AREA

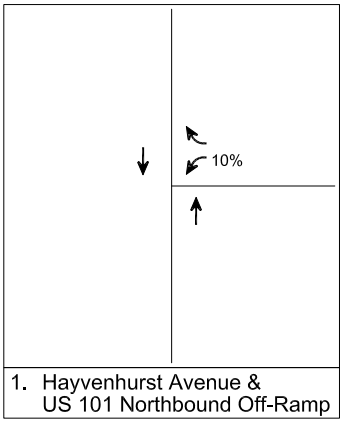
FIGURE 2



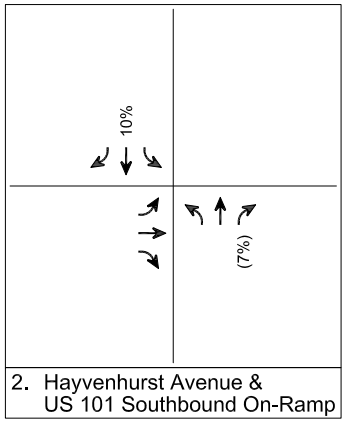
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- %(%) Inbound(Outbound) Trip Percentage

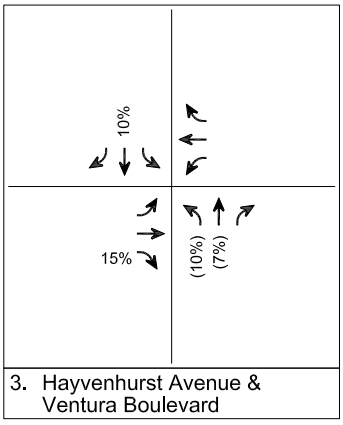
N
Not to Scale



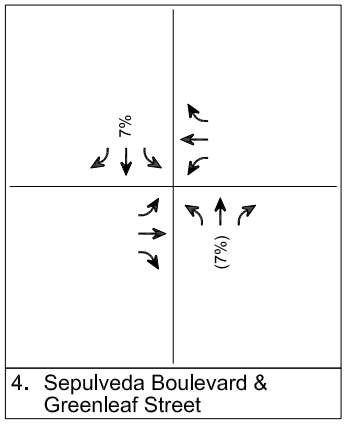
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



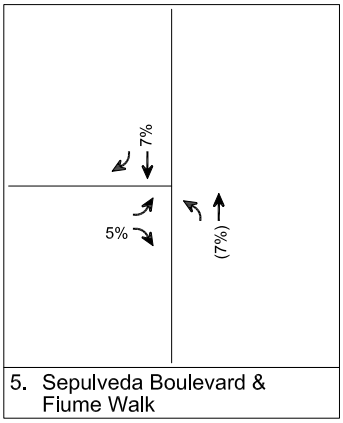
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



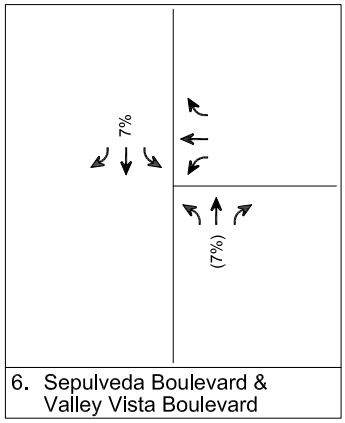
3. Hayvenhurst Avenue & Ventura Boulevard



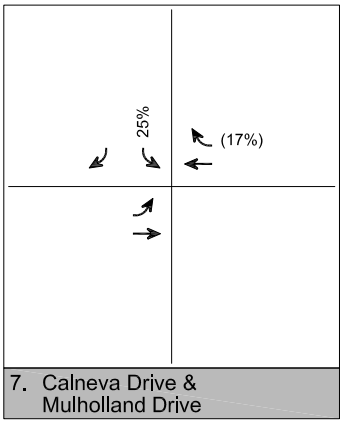
4. Sepulveda Boulevard & Greenleaf Street



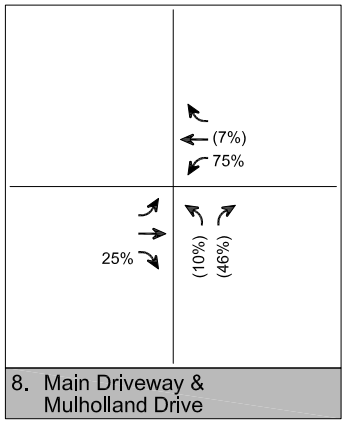
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



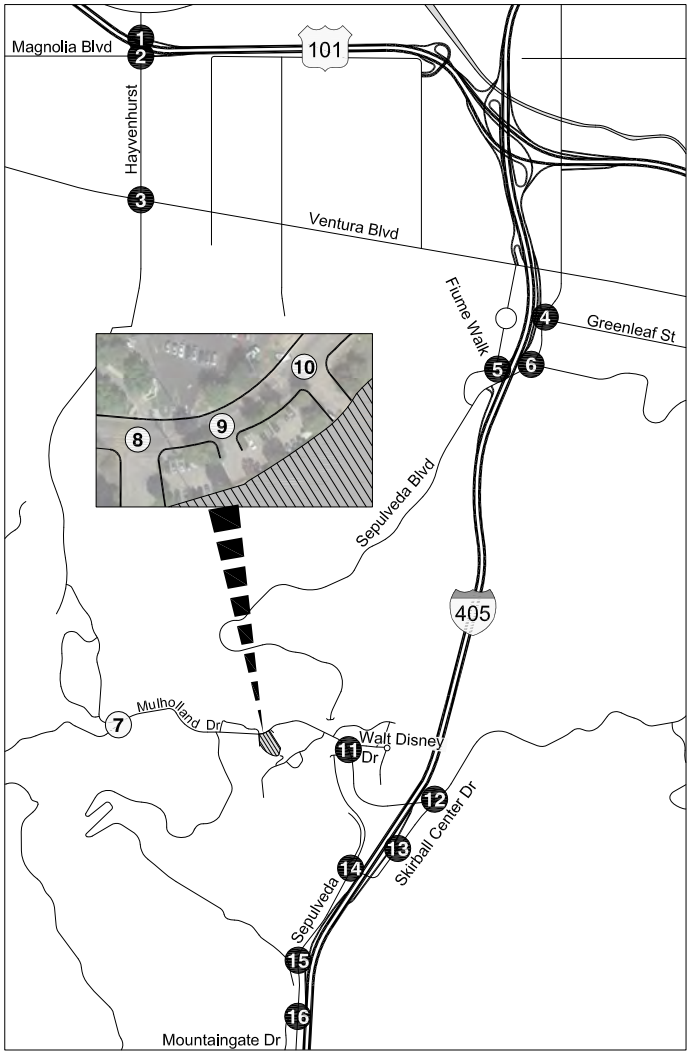
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

TRIP DISTRIBUTION

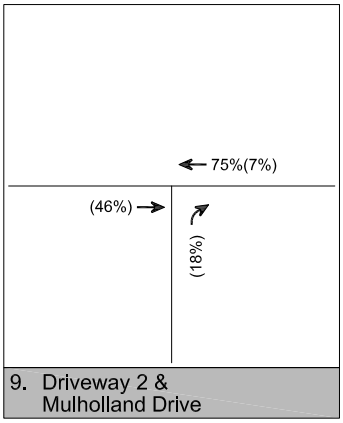
FIGURE 3



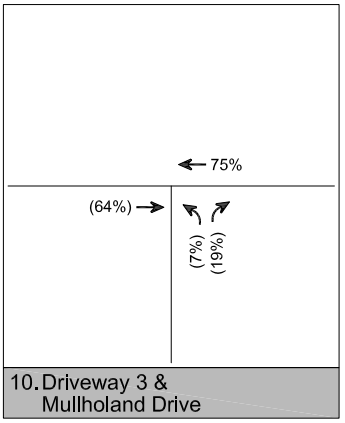
LEGEND

- Project Site
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- %(%) Inbound(Outbound) Trip Percentage

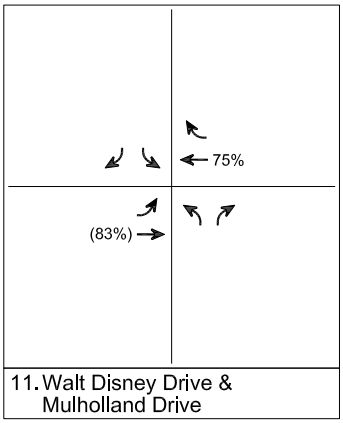
N
Not to Scale



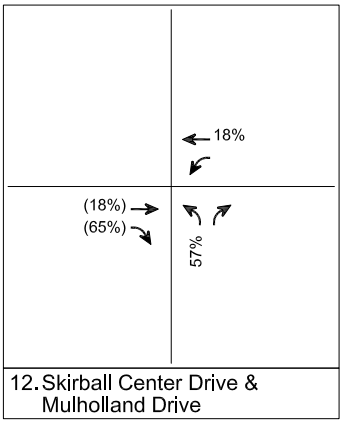
9. Driveway 2 & Mulholland Drive



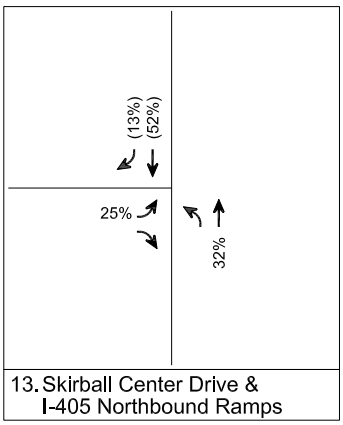
10. Driveway 3 & Mullholand Drive



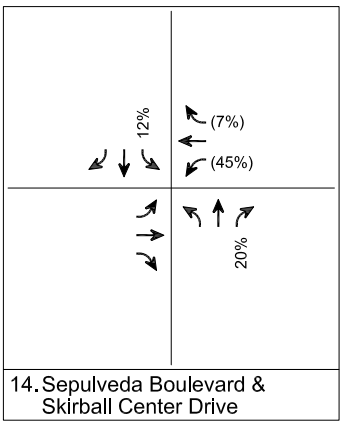
11. Walt Disney Drive & Mulholland Drive



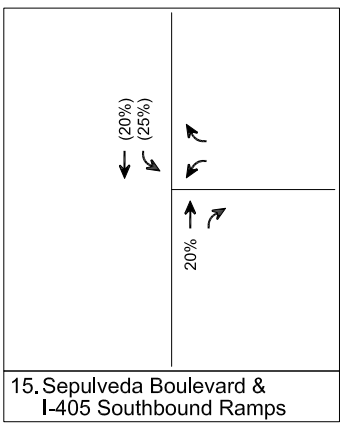
12. Skirball Center Drive & Mulholland Drive



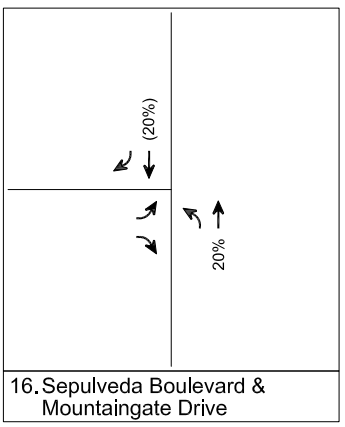
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



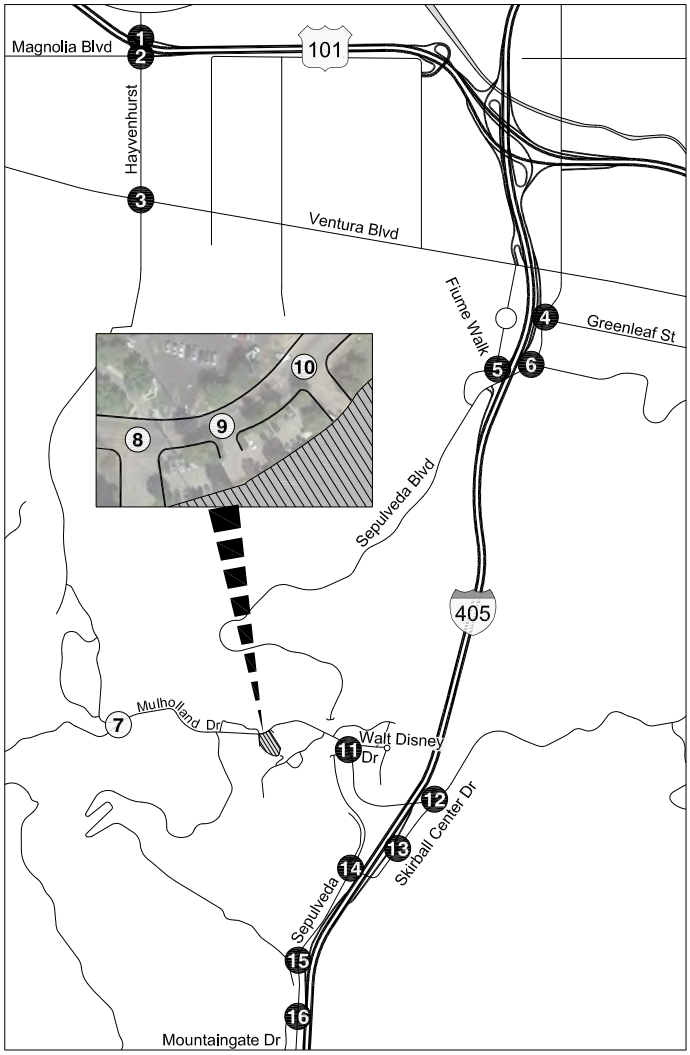
15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

TRIP DISTRIBUTION

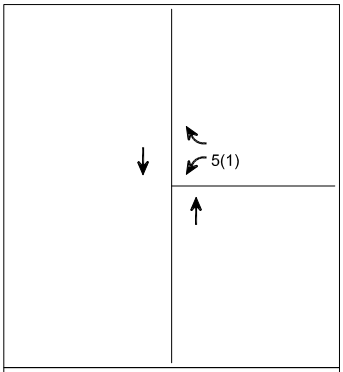
FIGURE 3 (CONT.)



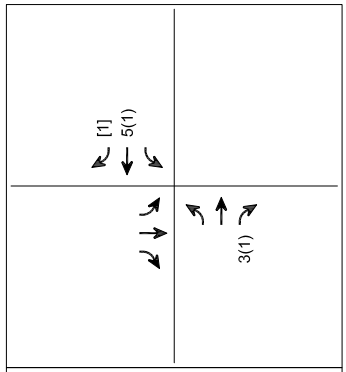
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- %(%) AM(School PM)[PM] Peak Hour Traffic Volumes

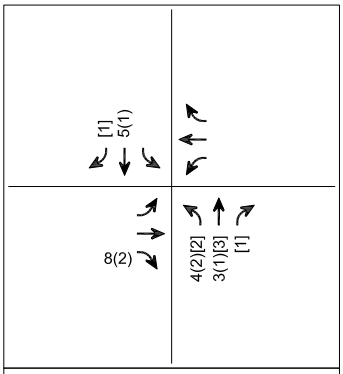
N
Not to Scale



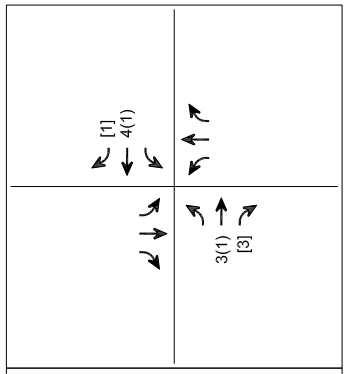
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp



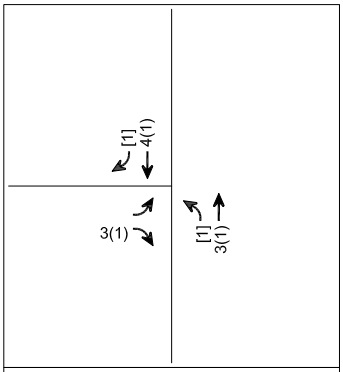
2. Hayvenhurst Avenue & US 101 Southbound On-Ramp



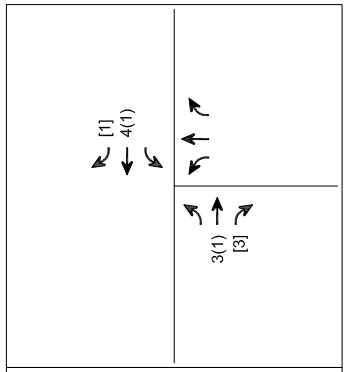
3. Hayvenhurst Avenue & Ventura Boulevard



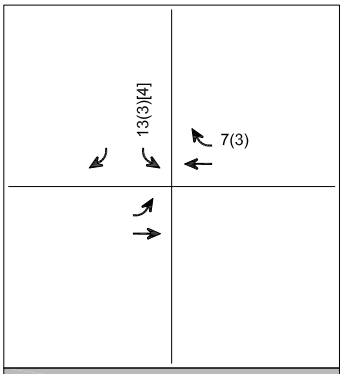
4. Sepulveda Boulevard & Greenleaf Street



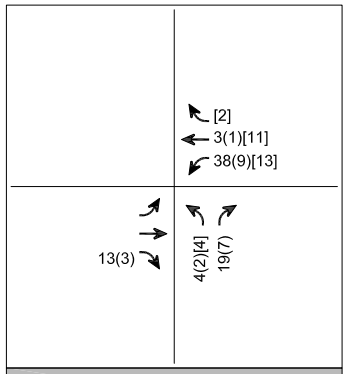
5. Sepulveda Boulevard & Fiume Walk



6. Sepulveda Boulevard & Valley Vista Boulevard



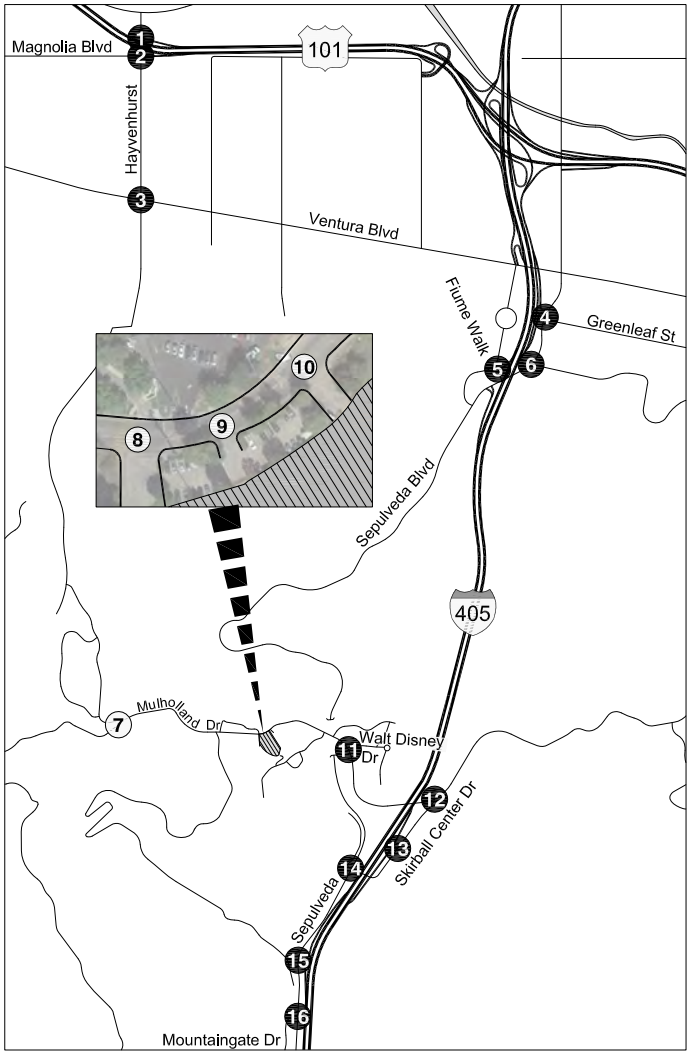
7. Calneva Drive & Mulholland Drive



8. Main Driveway & Mulholland Drive

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

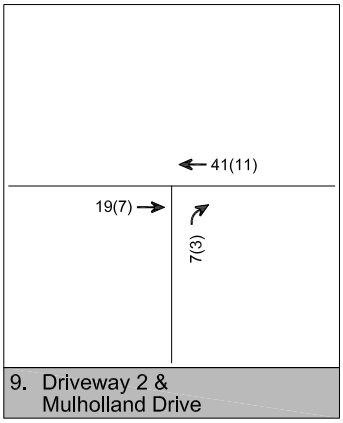
FIGURE
4



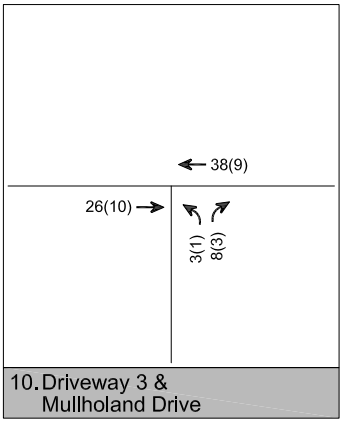
LEGEND

- Project Site
- # Study Intersection - Signalized
- (#) Study Intersection - Unsignalized
- %(%) AM(School PM)[PM] Peak Hour Traffic Volumes

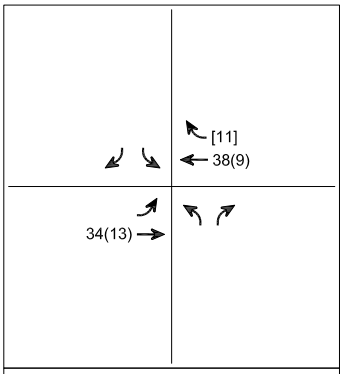
N
Not to Scale



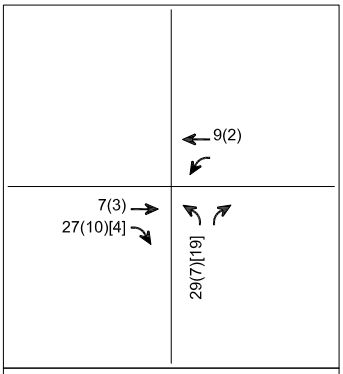
9. Driveway 2 & Mulholland Drive



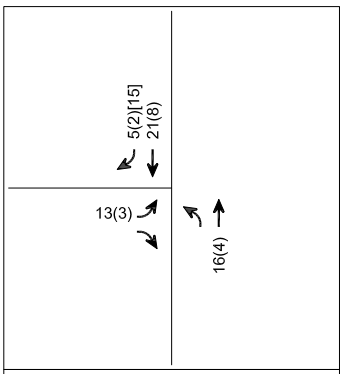
10. Driveway 3 & Mullholand Drive



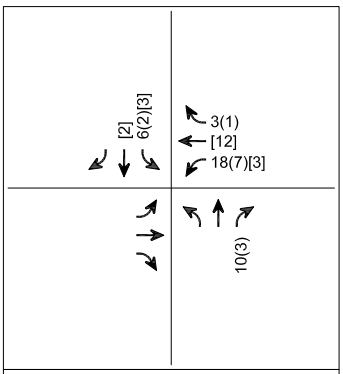
11. Walt Disney Drive & Mulholland Drive



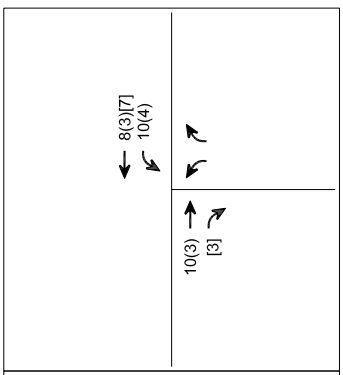
12. Skirball Center Drive & Mulholland Drive



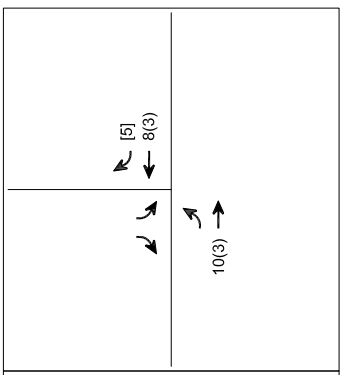
13. Skirball Center Drive & I-405 Northbound Ramps



14. Sepulveda Boulevard & Skirball Center Drive



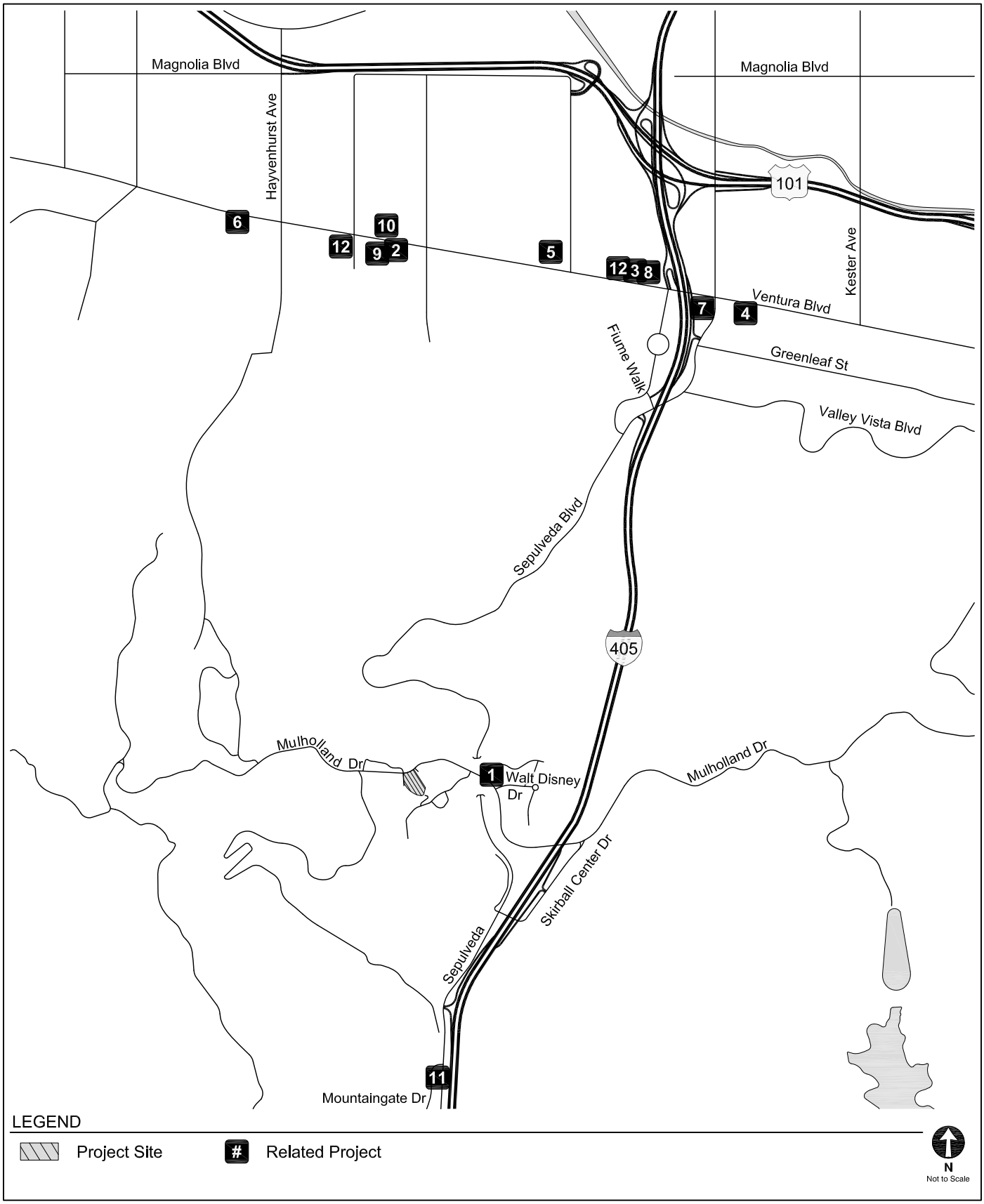
15. Sepulveda Boulevard & I-405 Southbound Ramps



16. Sepulveda Boulevard & Mountaingate Drive

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)



LOCATIONS OF RELATED PROJECTS

FIGURE 5

Appendix B

VMT Calculator Worksheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

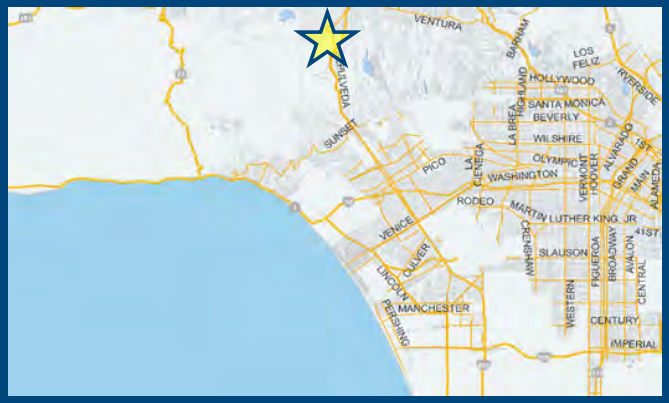
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: Mirman School

Scenario: Wth Project Conditions

Address: 16180 MULHOLLAND DR, 90049



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

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	330	Students
School | Private School (K-12)	330	Students

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

Proposed Project Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	100	Students
School | Private School (K-12)	430	Students

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

Project Screening Summary

Existing Land Use	Proposed Project
776 Daily Vehicle Trips	1,010 Daily Vehicle Trips
9,254 Daily VMT	12,046 Daily VMT

Tier 1 Screening Criteria

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

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	234 Net Daily Trips
The net increase in daily VMT ≤ 0	2,792 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is not required to perform VMT analysis.

Measuring the Miles

7/22/2020

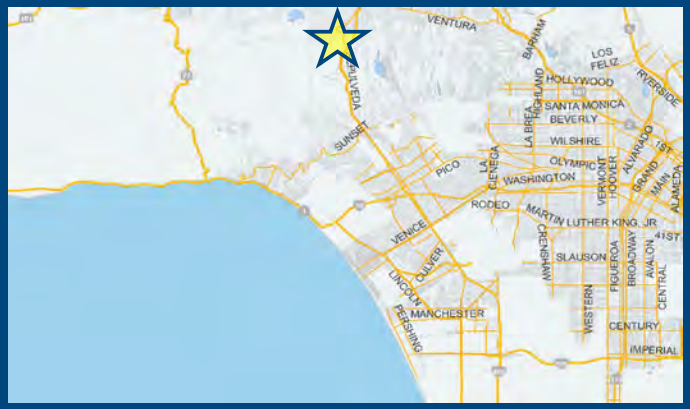
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: Mirman School

Scenario: Wth Project Conditions

Address: 16180 MULHOLLAND DR, 90049



Proposed Project Land Use Type	Value	Unit
School | Private School (K-12)	430	

TDM Strategies

Select each section to show individual strategies

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

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

- **A** Parking
- **B** Transit
- **C** Education & Encouragement
- **D** Commute Trip Reductions
- **E** Shared Mobility
- **F** Bicycle Infrastructure
- **G** Neighborhood Enhancement

Traffic Calming Improvements

☐ Proposed Prj ☐ Mitigation

25 percent of streets within project with traffic calming improvements

100 percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements

☐ Proposed Prj ☐ Mitigation

within project and connecting off-site

Analysis Results

Proposed Project	With Mitigation
1,010 Daily Vehicle Trips	**1,010** Daily Vehicle Trips
12,046 Daily VMT	**12,046** Daily VMT
N/A Household VMT per Capita	**N/A** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: N/A Threshold = 7.4 15% Below APC	**Household: N/A** Threshold = 7.4 15% Below APC
Work: N/A Threshold = 11.1 15% Below APC	**Work: N/A** Threshold = 11.1 15% Below APC

Measuring the Miles

7/22/2020

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: July 22, 2020
Project Name: Mirman School
Project Scenario: Wth Project Conditions
Project Address: 16180 MULHOLLAND DR, 90049

Version 1.2

Project Information			
Land Use Type		**Value**	**Units**
Housing	*Single Family*	*0*	*DU*
	Multi Family	*0*	*DU*
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	*0.000*	*ksf*
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	430	Students
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: July 22, 2020
Project Name: Mirman School
Project Scenario: Wth Project Conditions
Project Address: 16180 MULHOLLAND DR, 90049

Version 1.2

Analysis Results			
Total Employees: 65 Total Population: 0			
Proposed Project		***With Mitigation***	
1,010	**Daily Vehicle Trips**	**1,010**	**Daily Vehicle Trips**
12,046	**Daily VMT**	**12,046**	**Daily VMT**
N/A	**Household VMT per Capita**	**N/A**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?			
APC: West Los Angeles			
Impact Threshold: 15% Below APC Average Household = 7.4 Work = 11.1			
Proposed Project		***With Mitigation***	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 7.4	N/A	Household > 7.4	N/A
Work > 11.1	N/A	Work > 11.1	N/A

TDM Strategy Inputs

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: July 22, 2020
Project Name: Mirman School
Project Scenario: Wth Project Conditions
Project Address: 16180 MULHOLLAND DR, 90049

Version 1.2

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban

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

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban

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

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
MAX. TDM EFFECT	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

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

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: July 22, 2020
Project Name: Mirman School
Project Scenario: Wth Project Conditions
Project Address: 16180 MULHOLLAND DR, 90049

Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	12.4	0	0
Home Based Other Production	0	0.0%	0	11.1	0	0
Non-Home Based Other Production	82	-3.7%	79	13.0	1,066	1,027
Home-Based Work Attraction	98	-2.0%	96	11.8	1,156	1,133
Home-Based Other Attraction	805	-6.1%	756	12.0	9,660	9,072
Non-Home Based Other Attraction	82	-3.7%	79	10.3	845	814

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	0.0%	0	0	0.0%	0	0
Home Based Other Production	0.0%	0	0	0.0%	0	0
Non-Home Based Other Production	0.0%	79	1,027	0.0%	79	1,027
Home-Based Work Attraction	0.0%	96	1,133	0.0%	96	1,133
Home-Based Other Attraction	0.0%	756	9,072	0.0%	756	9,072
Non-Home Based Other Attraction	0.0%	79	814	0.0%	79	814

MXD VMT Methodology Per Capita & Per Employee

Total Population: 0
Total Employees: 65
APC: West Los Angeles

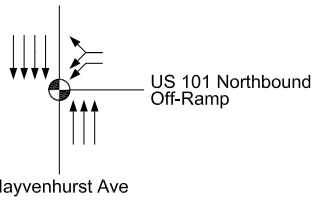
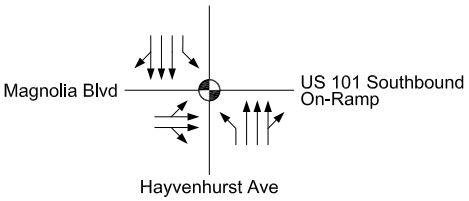
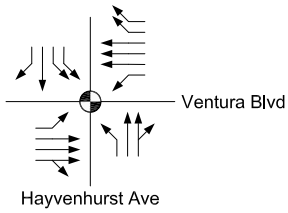
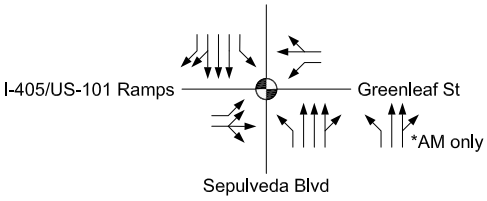
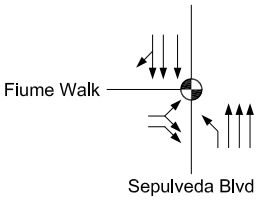
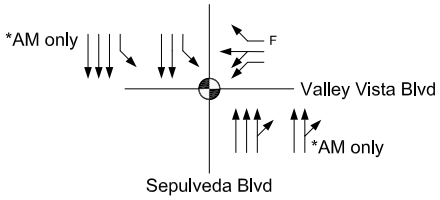
	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**0**	**0**
Total Home Based Work Attraction VMT	**1,133**	**1,133**
Total Home Based VMT Per Capita	**N/A**	**N/A**
Total Work Based VMT Per Employee	**N/A**	**N/A**

Appendix C

Intersection Lane Configurations

LEGEND

- Traffic Signal
- F Free Right-turn
- Stop Sign

	EXISTING CONDITIONS (YEAR 2019)	FUTURE CONDITIONS (YEAR 2025)
1. Hayvenhurst Avenue & US 101 Northbound Off-Ramp		Same as Existing Conditions
2. Hayvenhurst Avenue & Magnolia Boulevard/ US 101 Southbound On-Ramp		Same as Existing Conditions
3. Hayvenhurst Avenue & Ventura Boulevard		Same as Existing Conditions
4. Sepulveda Boulevard & I-405/US-101 Ramps/ Greenleaf Street		Same as Existing Conditions
5. Sepulveda Boulevard & Fiume Walk		Same as Existing Conditions
6. Sepulveda Boulevard & Valley Vista Boulevard		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

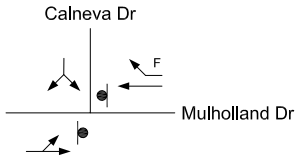
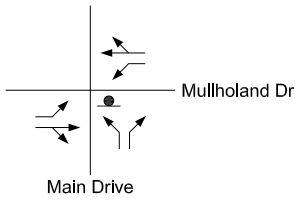
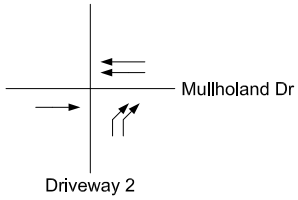
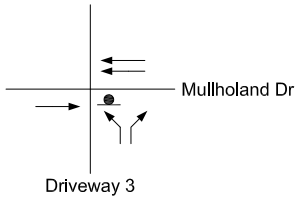
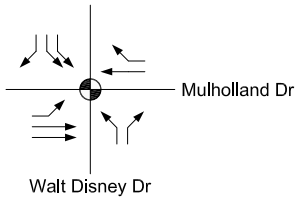
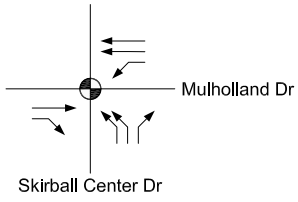
APPENDIX C

LEGEND

Traffic Signal

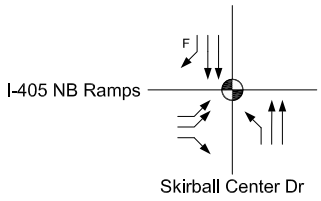
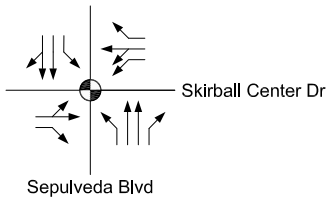
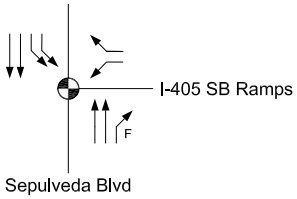
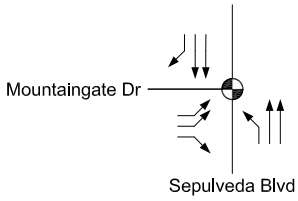
F Free Right-turn

Stop Sign

	EXISTING CONDITIONS (YEAR 2019)	FUTURE CONDITIONS (YEAR 2025)
7. Calneva Drive & Mulholland Drive		Same as Existing Conditions
8. Main Driveway & Mullholand Drive		Same as Existing Conditions
9. Driveway 2 & Mulholland Drive		Same as Existing Conditions
10. Driveway 3 & Mulholland Drive		Same as Existing Conditions
11. Walt Disney Drive & Mulholland Drive		Same as Existing Conditions
12. Skirball Center Drive & Mulholland Drive		Same as Existing Conditions

LEGEND

- Traffic Signal
- F Free Right-turn
- Stop Sign

	EXISTING CONDITIONS (YEAR 2019)	FUTURE CONDITIONS (YEAR 2025)
13. Skirball Center Drive & I-405 Northbound Ramps		Same as Existing Conditions
14. Sepulveda Boulevard & Skirball Center Drive		Same as Existing Conditions
15. Sepulveda Boulevard & I-405 Southbound Ramps		Same as Existing Conditions
16. Sepulveda Boulevard & Mountaingate Drive		Same as Existing Conditions

Appendix D

Traffic Counts

Turning Movement Count Report AM

Location ID: 1
North/South: Hayvenhurst Avenue
East/West: US 101 Northbound Off-Ramp

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	402	0	10	0	93	0	38	0	0	0	0	543
7:15	0	397	0	15	0	117	0	58	0	0	0	0	587
7:30	0	417	0	29	0	130	0	94	1	0	0	0	671
7:45	0	376	0	41	0	160	0	85	0	0	0	0	662
8:00	0	385	0	34	0	220	0	86	0	0	0	0	725
8:15	0	395	0	16	0	186	0	93	0	0	0	0	690
8:30	0	333	0	18	0	224	0	123	1	0	0	0	699
8:45	0	297	0	14	0	148	0	109	0	0	0	0	568
9:00	0	290	0	9	0	147	0	83	0	0	0	0	529
9:15	0	331	0	21	0	171	0	96	0	0	0	0	619
9:30	0	322	0	22	0	170	0	98	0	0	0	0	612
9:45	0	277	0	35	0	180	0	109	0	0	0	0	601

Total Volume:	0	4222	0	264	0	1946	0	1072	2	0	0	0	7506
Approach %	0%	100%	0%	12%	0%	88%	0%	100%	0%	0%	0%	0%	

Peak Hr Begin:	7:45												
PHV	0	1489	0	109	0	790	0	387	1	0	0	0	2776
PHF	0.942			0.885			0.782			0.000			0.957

Turning Movement Count Report PM

Location ID: 1
North/South: Hayvenhurst Avenue
East/West: US 101 Northbound Off-Ramp

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	0	143	0	51	0	132	0	153	0	0	0	0	479
14:15	0	124	0	39	0	132	0	171	0	0	0	0	466
14:30	0	127	0	34	0	112	0	144	0	0	0	0	417
14:45	0	139	0	43	0	108	0	181	0	0	0	0	471
15:00	0	109	0	42	0	112	0	233	0	0	0	0	496
15:15	0	146	0	58	0	99	0	216	0	0	0	0	519
15:30	0	160	0	48	0	109	0	228	0	0	0	0	545
15:45	0	152	0	61	0	96	0	233	0	0	0	0	542
16:00	0	150	1	56	0	77	0	243	0	0	0	0	527
16:15	0	123	0	62	0	80	0	246	0	0	0	0	511
16:30	0	147	0	51	0	76	0	277	0	0	0	0	551
16:45	0	160	0	68	0	63	0	293	0	0	0	0	584
17:00	0	149	0	54	0	81	0	287	0	0	0	0	571
17:15	0	153	0	65	0	72	0	365	0	0	0	0	655
17:30	0	136	0	66	0	70	0	315	0	0	0	0	587
17:45	0	172	0	60	0	81	0	286	0	0	0	0	599
Total Volume:	0	2290	1	858	0	1500	0	3871	0	0	0	0	8520
Approach %	0%	100%	0%	36%	0%	64%	0%	100%	0%	0%	0%	0%	
Peak Hr Begin:	17:00												
PHV	0	610	0	245	0	304	0	1253	0	0	0	0	2412
PHF	0.887			0.973			0.858			0.000			0.921

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	2	0	0	0	0
7:15	0	0	1	0	0	0	0	0
7:30	0	0	1	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0
8:00	1	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0
8:30	1	0	2	0	0	0	0	0
8:45	0	0	0	1	0	0	0	0
9:00	0	0	1	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0
9:30	0	0	2	2	0	0	0	0
9:45	0	0	1	0	0	0	0	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	2	1	0	0	0	0
14:15	0	0	0	1	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	2	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	2	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
16:00	4	0	0	0	0	0	0	0
16:15	2	0	0	0	0	0	0	0
16:30	3	0	0	0	0	0	0	0
16:45	1	0	0	0	0	0	0	0
18:00	4	0	0	0	0	0	0	0
18:15	0	0	0	1	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	1	0	0	1	0	0	0	0

Turning Movement Count Report AM

Location ID: 2
North/South: Hayvenhurst Avenue
East/West: US 101 Southbound On-Ramp

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	50	334	109	0	0	0	35	27	5	38	166	13	777
7:15	68	365	78	0	0	0	51	38	7	45	121	16	789
7:30	82	397	68	0	0	0	36	74	5	27	110	21	820
7:45	81	389	59	0	0	0	48	65	7	23	98	19	789
8:00	136	418	53	0	0	0	39	49	8	39	79	34	855
8:15	114	429	51	0	0	0	35	55	7	41	98	41	871
8:30	121	403	25	0	0	0	28	95	5	85	72	42	876
8:45	65	318	27	0	0	0	29	63	16	80	53	29	680
9:00	65	350	17	0	0	0	23	60	7	79	60	31	692
9:15	115	375	36	0	0	0	27	59	10	79	69	31	801
9:30	81	363	42	0	0	0	41	66	16	79	69	39	796
9:45	93	329	47	0	0	0	42	92	16	71	55	16	761

Total Volume:	1071	4470	612	0	0	0	434	743	109	686	1050	332	9507
Approach %	17%	73%	10%	0%	0%	0%	34%	58%	8%	33%	51%	16%	

Peak Hr Begin:	7:45												
PHV	452	1639	188	0	0	0	150	264	27	188	347	136	3391
PHF	0.939			0.000			0.861			0.843			0.968

Turning Movement Count Report PM

Location ID: 2
North/South: Hayvenhurst Avenue
East/West: US 101 Southbound On-Ramp

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	53	206	13	0	0	0	106	127	35	39	72	27	678
14:15	44	184	22	0	0	0	121	150	29	18	66	24	658
14:30	55	169	21	0	0	0	84	131	27	19	80	25	611
14:45	53	166	13	0	0	0	83	160	33	21	76	26	631
15:00	59	157	15	0	0	0	87	197	39	18	59	39	670
15:15	58	165	18	0	0	0	92	193	20	22	61	28	657
15:30	71	171	21	0	0	0	98	195	28	19	56	33	692
15:45	69	179	19	0	0	0	72	202	20	21	53	37	672
16:00	54	124	14	0	0	0	102	204	33	25	70	45	671
16:15	59	133	15	0	0	0	112	205	44	17	63	37	685
16:30	58	147	19	0	0	0	108	216	44	22	74	69	757
16:45	59	148	14	0	0	0	83	225	37	19	87	65	737
17:00	63	150	19	0	0	0	118	235	44	12	101	69	811
17:15	69	143	15	0	0	0	113	281	50	31	86	65	853
17:30	74	119	17	0	0	0	110	276	38	22	87	59	802
17:45	60	165	23	0	0	0	79	229	46	21	85	38	746

Total Volume:	958	2526	278	0	0	0	1568	3226	567	346	1176	686	11331
Approach %	25%	67%	7%	0%	0%	0%	29%	60%	11%	16%	53%	31%	

Peak Hr Begin:	17:00												
PHV	266	577	74	0	0	0	420	1021	178	86	359	231	3212
PHF	0.924			0.000			0.912			0.929			0.941

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	2	7	0	0	0
7:15	0	0	1	0	7	0	0	0
7:30	0	0	1	0	1	0	0	0
7:45	0	0	0	0	3	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	0	0	0	0	3	0	2	0
8:30	0	0	1	0	0	0	0	0
8:45	0	0	0	1	0	0	0	0
9:00	0	0	1	0	0	0	0	0
9:15	0	0	0	1	0	0	0	0
9:30	0	0	1	1	2	0	3	0
9:45	0	0	0	1	1	0	1	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	0	1	0	0	0	0
14:15	0	0	0	1	0	0	0	0
14:30	0	0	0	0	0	0	1	0
14:45	0	0	0	1	0	0	0	0
15:00	0	0	0	0	0	0	3	0
15:15	0	0	0	0	0	0	0	0
15:30	0	1	0	0	0	0	0	0
15:45	0	0	0	0	0	0	1	1
16:00	0	0	0	1	1	0	0	0
16:15	0	0	0	0	2	0	6	0
16:30	1	0	0	0	0	0	0	0
16:45	0	0	0	0	1	0	10	0
18:00	0	0	0	0	28	0	28	0
18:15	0	0	0	2	3	0	3	1
18:30	0	0	0	1	21	0	21	0
18:45	0	0	0	2	15	0	15	0

Turning Movement Count Report AM

Location ID: 3
North/South: Hayvenhurst Avenue
East/West: Ventura Boulevard

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	30	107	196	15	67	6	11	27	22	40	422	23	966
7:15	21	132	191	22	80	10	14	37	16	48	432	20	1023
7:30	22	132	225	30	92	9	13	52	28	27	420	34	1084
7:45	25	115	222	31	113	6	3	44	21	32	475	30	1117
8:00	33	107	227	25	143	12	11	31	24	23	429	32	1097
8:15	26	88	234	16	99	9	21	55	32	19	421	25	1045
8:30	32	95	212	32	107	6	19	80	34	29	391	25	1062
8:45	27	111	238	21	126	11	12	42	32	35	374	29	1058
9:00	20	121	199	21	114	10	10	30	24	41	329	36	955
9:15	25	112	201	23	146	11	16	37	26	31	269	42	939
9:30	41	104	184	34	138	13	11	39	16	36	233	46	895
9:45	64	96	90	38	164	7	10	54	18	19	98	36	694
Total Volume:	366	1320	2419	308	1389	110	151	528	293	380	4293	378	11935
Approach %	9%	32%	59%	17%	77%	6%	16%	54%	30%	8%	85%	7%	
Peak Hr Begin:	7:30												
PHV	106	442	908	102	447	36	48	182	105	101	1745	121	4343
PHF	0.960			0.813			0.775			0.916			0.972

Turning Movement Count Report PM

Location ID: 3
North/South: Hayvenhurst Avenue
East/West: Ventura Boulevard

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	56	50	73	54	209	9	12	94	42	30	181	74	884
14:15	63	58	59	67	209	17	15	85	42	29	183	64	891
14:30	52	50	63	70	211	16	12	83	51	48	163	48	867
14:45	74	38	61	77	230	18	15	73	40	25	196	55	902
15:00	58	42	40	145	334	13	14	82	41	31	206	55	1061
15:15	57	43	57	104	265	13	8	86	40	28	211	54	966
15:30	51	31	55	119	327	15	12	75	46	39	250	48	1068
15:45	53	24	64	112	318	9	16	91	51	15	224	36	1013
16:00	48	40	51	128	320	12	23	102	51	29	246	41	1091
16:15	38	30	43	175	308	8	12	92	53	17	222	53	1051
16:30	44	39	59	125	339	15	13	94	34	21	224	53	1060
16:45	53	39	47	151	379	14	21	97	54	25	221	40	1141
17:00	70	33	53	179	336	12	13	99	50	23	235	52	1155
17:15	52	34	47	180	367	15	15	91	54	19	245	31	1150
17:30	50	36	47	159	365	5	18	104	47	24	256	46	1157
17:45	49	39	59	143	393	15	19	80	38	28	262	46	1171

Total Volume:	868	626	878	1988	4910	206	238	1428	734	431	3525	796	16628
Approach %	37%	26%	37%	28%	69%	3%	10%	60%	31%	9%	74%	17%	

Peak Hr Begin:	17:00												
PHV	221	142	206	661	1461	47	65	374	189	94	998	175	4633
PHF	0.912			0.965			0.929			0.943			0.989

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	4	1	0	0	8	0	9	0
7:15	11	1	0	0	6	0	6	1
7:30	8	1	0	0	3	0	5	0
7:45	12	0	0	0	6	0	8	0
8:00	6	0	0	0	6	0	7	0
8:15	7	0	0	0	8	0	7	0
8:30	21	1	0	0	5	0	9	0
8:45	20	0	0	0	6	0	16	0
9:00	13	1	0	0	3	0	9	0
9:15	11	0	1	0	10	0	6	0
9:30	16	0	0	0	7	0	10	1
9:45	23	1	0	0	9	0	23	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	28	1	0	0	28	0	25	0
14:15	9	0	0	0	14	0	5	0
14:30	20	0	0	0	7	0	11	0
14:45	23	2	0	0	16	1	5	0
15:00	38	0	0	0	17	0	22	0
15:15	29	0	0	0	7	1	25	0
15:30	30	0	0	0	11	0	10	1
15:45	22	1	0	0	21	0	21	0
16:00	20	0	0	0	16	1	11	1
16:15	21	1	0	0	12	0	9	1
16:30	15	1	0	0	14	1	3	0
16:45	25	1	0	0	11	0	16	0
18:00	18	20	0	0	15	0	15	0
18:15	10	0	0	0	2	0	8	0
18:30	20	1	0	0	10	0	12	0
18:45	10	1	0	0	8	1	6	0

Turning Movement Count Report AM

Location ID: 4
North/South: Sepulveda Boulevard
East/West: Fiume Walk

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	15	469	1	0	0	0	0	56	3	145	0	14	703
7:15	23	341	0	0	0	0	0	80	5	114	0	7	570
7:30	25	370	0	0	0	0	0	72	4	128	0	16	615
7:45	39	430	0	0	0	0	0	97	3	129	0	11	709
8:00	48	362	0	0	0	0	0	74	4	131	0	10	629
8:15	44	375	0	0	0	0	0	91	4	135	0	10	659
8:30	41	342	0	0	0	0	0	95	3	131	0	13	625
8:45	27	388	0	0	0	0	0	81	3	145	0	11	655
9:00	57	499	0	0	0	0	0	77	4	92	0	20	749
9:15	34	627	0	0	0	0	0	61	3	84	0	20	829
9:30	36	544	0	0	0	0	0	79	2	110	0	38	809
9:45	41	450	0	0	0	0	0	92	3	81	0	36	703
Total Volume:	430	5197	1	0	0	0	0	955	41	1425	0	206	8255
Approach %	8%	92%	0%	0%	0%	0%	0%	96%	4%	87%	0%	13%	
Peak Hr Begin:	9:00												
PHV	168	2120	0	0	0	0	0	309	12	367	0	114	3090
PHF	0.865			0.000			0.845			0.813			0.932

Turning Movement Count Report PM

Location ID: 4
North/South: Sepulveda Boulevard
East/West: Fiume Walk

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	21	129	1	0	0	0	0	106	4	26	0	55	342
14:15	35	109	0	0	0	0	0	105	3	37	0	66	355
14:30	32	125	0	0	0	0	0	155	2	34	0	63	411
14:45	36	118	0	0	0	0	0	135	4	38	0	69	400
15:00	34	145	0	0	0	0	0	174	5	33	0	51	442
15:15	38	135	0	0	0	0	0	228	8	25	0	63	497
15:30	40	123	0	0	0	0	0	217	15	39	0	43	477
15:45	51	150	0	0	0	0	0	235	8	36	0	53	533
16:00	34	126	0	0	0	0	0	290	7	35	0	46	538
16:15	45	147	0	0	0	0	0	253	12	42	0	47	546
16:30	44	135	0	0	0	0	0	268	9	36	0	50	542
16:45	50	135	0	0	0	0	0	292	23	39	0	58	597
17:00	66	118	0	0	0	0	0	316	22	36	0	64	622
17:15	45	162	0	0	0	0	0	297	14	59	0	79	656
17:30	50	167	0	0	0	0	0	300	15	37	0	66	635
17:45	53	175	0	0	0	0	0	304	22	38	0	78	670
Total Volume:	674	2199	1	0	0	0	0	3675	173	590	0	951	8263
Approach %	23%	77%	0%	0%	0%	0%	0%	96%	4%	38%	0%	62%	
Peak Hr Begin:	17:00												
PHV	214	622	0	0	0	0	0	1217	73	170	0	287	2583
PHF	0.917			0.000			0.954			0.828			0.964

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	0	0	1	0
7:15	0	0	0	0	0	0	5	0
7:30	0	0	0	0	0	0	1	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	1	0
8:15	0	0	0	0	0	0	2	0
8:30	0	0	0	0	0	0	1	0
8:45	0	0	0	0	0	0	1	0
9:00	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	1	0
9:45	0	0	0	0	0	0	0	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	2	0
14:45	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	1	0
15:15	0	0	0	0	0	0	1	0
15:30	0	0	0	0	0	0	1	0
15:45	0	0	0	0	0	0	1	0
16:00	0	0	0	0	0	0	1	0
16:15	0	0	0	0	0	0	2	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	2	1
18:00	0	0	0	0	0	0	1	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	1	0

Turning Movement Count Report AM

Location ID: 5
North/South: Walt Disney Drive
East/West: Mulholland Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	1	7	48	0	0	0	0	0	300	7	363
7:15	3	0	9	25	52	0	0	0	0	0	330	7	426
7:30	7	0	28	39	100	0	0	0	0	0	330	13	517
7:45	8	0	25	47	185	0	0	0	0	0	324	12	601
8:00	14	0	58	76	92	0	0	0	0	0	349	21	610
8:15	8	0	54	34	85	0	0	0	0	0	371	14	566
8:30	4	0	15	6	81	0	0	0	0	0	321	2	429
8:45	0	0	1	1	56	0	0	0	0	0	337	0	395
9:00	1	0	1	3	39	0	0	0	0	0	302	1	347
9:15	0	0	3	2	44	0	0	0	0	0	277	1	327
9:30	0	0	2	0	36	0	0	0	0	0	313	1	352
9:45	0	0	4	3	46	0	0	0	0	0	256	2	311

Total Volume:	45	0	201	243	864	0	0	0	0	0	3810	81	5244
Approach %	18%	0%	82%	22%	78%	0%	0%	0%	0%	0%	98%	2%	

Peak Hr Begin:	7:30												
PHV	37	0	165	196	462	0	0	0	0	0	1374	60	2294
PHF	0.701			0.709			0.000			0.931			0.940

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

Turning Movement Count Report PM

Location ID: 5
North/South: Walt Disney Drive
East/West: Mulholland Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	1	0	1	4	71	0	0	0	0	0	34	1	112
14:15	2	0	16	18	98	0	0	0	0	0	53	2	189
14:30	1	0	5	24	101	0	0	0	0	0	71	2	204
14:45	1	0	8	31	129	0	0	0	0	0	68	5	242
15:00	2	0	1	26	178	0	0	0	0	0	52	5	264
15:15	12	0	45	13	202	0	0	0	0	0	142	1	415
15:30	8	0	35	15	163	0	0	0	0	0	150	4	375
15:45	5	0	24	10	158	0	0	0	0	0	66	6	269
16:00	14	0	24	17	146	0	0	0	0	0	59	8	268
16:15	3	0	10	24	154	0	0	0	0	0	60	7	258
16:30	9	0	26	19	195	0	0	0	0	0	71	3	323
16:45	5	0	37	9	171	0	0	0	0	0	82	2	306
17:00	8	0	9	6	174	0	0	0	0	0	73	0	270
17:15	3	0	5	5	187	0	0	0	0	0	63	0	263
17:30	2	0	3	14	225	0	0	0	0	0	51	0	295
17:45	3	0	19	2	239	0	0	0	0	0	73	0	336

Total Volume:	79	0	268	237	2591	0	0	0	0	0	1168	46	4389
Approach %	23%	0%	77%	8%	92%	0%	0%	0%	0%	0%	96%	4%	

Peak Hr Begin:	15:15												
PHV	39	0	128	55	669	0	0	0	0	0	417	19	1327
PHF	0.732			0.842			0.000			0.708			0.799

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	1	0	0	0	0	0	1	0
8:30	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0
9:15	0	0	1	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	0	0	0	0	0	0
14:15	1	0	0	0	0	0	1	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	1	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	1	0	0	0	0
15:45	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 6
North/South: Sepulveda Boulevard
East/West: Mountaingate Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	5	745	0	0	0	0	0	23	12	19	0	8	812
7:15	8	598	0	0	0	0	0	31	6	19	0	9	671
7:30	15	558	0	0	0	0	0	53	12	18	0	7	663
7:45	15	580	0	0	0	0	0	43	15	18	0	18	689
8:00	14	575	0	0	0	0	0	43	16	8	0	4	660
8:15	15	679	0	0	0	0	0	54	17	16	0	8	789
8:30	13	664	0	0	0	0	0	55	18	12	0	9	771
8:45	14	657	0	0	0	0	0	34	17	13	0	4	739
9:00	16	663	0	0	0	0	0	44	20	6	0	16	765
9:15	12	625	0	0	0	0	0	56	18	15	0	14	740
9:30	13	652	0	0	0	0	0	53	13	12	0	10	753
9:45	11	542	0	0	0	0	0	36	10	14	0	8	621

Total Volume:	151	7538	0	0	0	0	0	525	174	170	0	115	8673
Approach %	2%	98%	0%	0%	0%	0%	0%	75%	25%	60%	0%	40%	

Peak Hr Begin:	8:15												
PHV	58	2663	0	0	0	0	0	187	72	47	0	37	3064
PHF	0.980			0.000			0.887			0.875			0.971

Turning Movement Count Report PM

Location ID: 6
North/South: Sepulveda Boulevard
East/West: Mountaingate Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	12	102	0	0	0	0	0	73	12	17	0	19	235
14:15	8	133	0	0	0	0	0	150	13	17	0	20	341
14:30	13	150	0	0	0	0	0	161	15	15	0	12	366
14:45	14	86	0	0	0	0	0	211	22	8	0	12	353
15:00	10	64	0	0	0	0	0	261	15	16	0	16	382
15:15	16	87	0	0	0	0	0	341	9	16	0	22	491
15:30	20	106	0	0	0	0	0	346	18	9	0	24	523
15:45	12	74	0	0	0	0	0	352	16	11	0	17	482
16:00	8	81	0	0	0	0	0	442	11	14	0	19	575
16:15	12	70	0	0	0	0	0	490	14	17	0	17	620
16:30	14	74	0	0	0	0	0	470	22	14	0	11	605
16:45	9	68	0	0	0	0	0	628	7	14	0	6	732
17:00	10	66	0	0	0	0	0	602	12	13	0	21	724
17:15	10	99	0	0	0	0	0	543	10	11	0	12	685
17:30	8	81	0	0	0	0	0	622	13	8	0	14	746
17:45	21	80	0	0	0	0	0	663	24	8	0	12	808

Total Volume:	197	1421	0	0	0	0	0	6355	233	208	0	254	8668
Approach %	12%	88%	0%	0%	0%	0%	0%	96%	4%	45%	0%	55%	

Peak Hr Begin:	17:00												
PHV	49	326	0	0	0	0	0	2430	59	40	0	59	2963
PHF	0.860			0.000			0.906			0.728			0.917

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	4	0	0	0
7:30	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0
8:45	0	0	0	0	1	0	1	0
9:00	0	0	0	0	2	0	0	0
9:15	0	0	0	0	0	0	0	2
9:30	0	0	0	0	0	0	0	1
9:45	0	0	0	0	1	0	0	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	2	0
14:45	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	1
15:30	0	0	0	0	0	1	0	0
15:45	0	0	0	0	2	0	0	0
16:00	0	0	0	0	1	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	1	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 7
North/South: Mirman School Main Driveway
East/West: Mulholland Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	1	12	23	5	0	0	10	319	0	370
7:15	0	0	0	0	21	17	4	0	0	7	338	0	387
7:30	0	0	0	2	34	44	12	0	0	18	309	1	420
7:45	0	0	0	1	58	62	31	0	0	15	254	1	422
8:00	0	0	0	0	57	24	26	0	0	10	288	1	406
8:15	0	0	0	1	79	12	6	0	0	5	342	0	445
8:30	0	0	0	3	65	16	5	0	1	1	313	1	405
8:45	0	0	0	2	36	7	11	0	1	2	334	1	394
9:00	0	0	0	1	48	0	5	0	1	0	289	1	345
9:15	0	0	0	1	41	2	8	0	0	1	261	0	314
9:30	0	0	0	1	33	2	4	0	0	1	300	0	341
9:45	0	0	0	0	36	3	0	0	0	2	259	0	300

Total Volume:	0	0	0	13	520	212	117	0	3	72	3606	6	4549
Approach %	0%	0%	0%	2%	70%	28%	98%	0%	3%	2%	98%	0%	

Peak Hr Begin:	7:30												
PHV	0	0	0	4	228	142	75	0	0	48	1193	3	1693
PHF	0.000			0.773			0.605			0.896			0.951

Turning Movement Count Report PM

Location ID: 7
North/South: Mirman School Main Driveway
East/West: Mulholland Drive

Date: 10/18/16
City: Encino, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
14:00	0	0	0	1	68	1	3	0	0	1	27	0	101
14:15	0	0	0	3	86	13	7	0	0	3	39	0	151
14:30	0	0	0	0	78	7	10	0	0	5	59	0	159
14:45	0	0	0	3	83	18	13	0	2	3	61	1	184
15:00	0	0	0	0	101	44	4	0	1	13	52	0	215
15:15	0	0	0	0	113	50	58	0	8	13	51	0	293
15:30	0	0	0	0	140	28	61	0	18	4	51	0	302
15:45	0	0	0	0	161	9	15	0	3	1	46	0	235
16:00	0	0	0	1	142	3	6	0	3	0	48	0	203
16:15	0	0	0	1	145	1	2	0	0	0	58	0	207
16:30	0	0	0	0	167	7	6	0	0	1	44	2	227
16:45	0	0	0	2	173	2	13	0	5	0	37	0	232
17:00	0	0	0	1	176	7	12	0	3	1	32	0	232
17:15	0	0	0	1	174	3	4	0	2	0	38	1	223
17:30	0	0	0	0	224	1	2	0	0	0	34	0	261
17:45	0	0	0	6	239	3	3	0	0	0	33	0	284

Total Volume:	0	0	0	19	2270	197	219	0	45	45	710	4	3509
Approach %	0%	0%	0%	1%	91%	8%	83%	0%	17%	6%	94%	1%	

Peak Hr Begin:	15:00												
PHV	0	0	0	0	515	131	138	0	30	31	200	0	1045
PHF	0.000			0.950			0.532			0.888			0.865

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0
7:30	1	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	1	0	0	0	0	0	1	0
8:30	1	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0
9:00	1	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	1	0	0	0	0	0	1	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	1	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

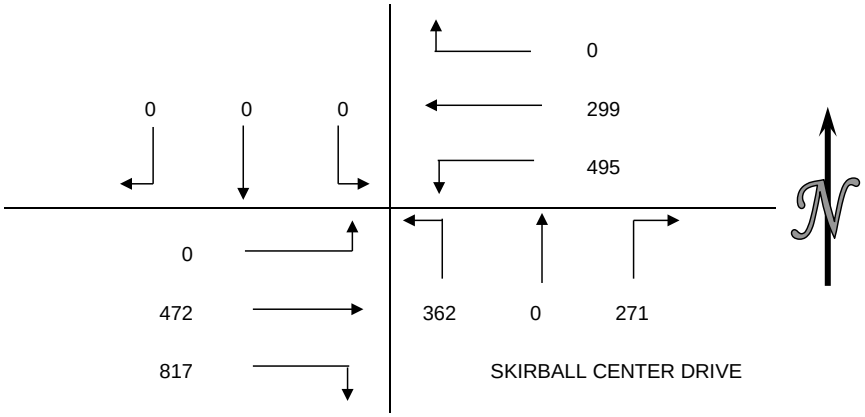
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: WEDNESDAY MAY 31 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SKIRBALL CENTER DRIVE
E/W MULHOLLAND DRIVE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	0	0	0	34	132	51	0	31	212	96	0	556
715-730	0	0	0	0	35	111	77	0	41	160	115	0	539
730-745	0	0	0	0	55	130	68	0	88	205	125	0	671
745-800	0	0	0	0	75	126	71	0	117	192	102	0	683
800-815	0	0	0	0	109	102	72	0	85	199	104	0	671
815-830	0	0	0	0	60	137	60	0	72	221	141	0	691
830-845	0	0	0	0	46	145	45	0	48	197	103	0	584
845-900	0	0	0	0	41	115	59	0	46	166	110	0	537
900-915	0	0	0	0	23	120	57	0	27	152	122	0	501
915-930	0	0	0	0	15	128	41	0	15	165	123	0	487
930-945	0	0	0	0	17	132	66	0	27	139	113	0	494
945-1000	1	1	1	0	30	126	60	0	15	149	72	0	455
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	0	0	0	0	199	499	267	0	277	769	438	0	2449
715-815	0	0	0	0	274	469	288	0	331	756	446	0	2564
730-830	0	0	0	0	299	495	271	0	362	817	472	0	2716
745-845	0	0	0	0	290	510	248	0	322	809	450	0	2629
800-900	0	0	0	0	256	499	236	0	251	783	458	0	2483
815-915	0	0	0	0	170	517	221	0	193	736	476	0	2313
830-930	0	0	0	0	125	508	202	0	136	680	458	0	2109
845-945	0	0	0	0	96	495	223	0	115	622	468	0	2019
900-1000	1	1	1	0	85	506	224	0	84	605	430	0	1937

AM PEAK HOUR: 730-830



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	2	0	2
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	1	0	1
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	2	0	2

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	0	0
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	1	0	1
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	2	0	2
715-815	0	0	1	0	1
730-830	0	0	1	0	1
745-845	0	0	1	0	1
800-900	0	0	3	0	3

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	1	0	1
715-815	0	0	1	0	1
730-830	0	0	1	0	1
745-845	0	0	1	0	1
800-900	0	0	0	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

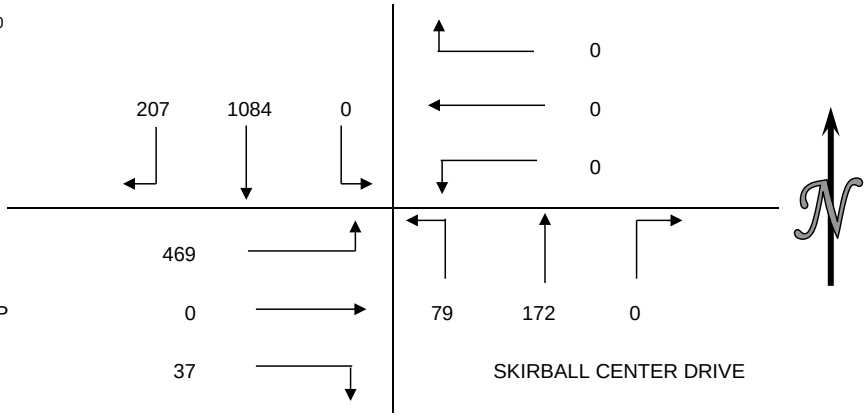
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: WEDNESDAY MAY 31 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SKIRBALL CENTER DRIVE
E/W NORTHBOUND I-405 RAMP
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	36	306	0	0	0	0	0	22	10	3	0	61	438
715-730	43	268	0	0	0	0	0	37	15	14	0	87	464
730-745	51	256	0	0	0	0	0	35	21	7	0	122	492
745-800	50	274	0	0	0	0	0	58	24	13	0	138	557
800-815	48	272	0	0	0	0	0	43	18	10	0	117	508
815-830	58	282	0	0	0	0	0	36	16	7	0	92	491
830-845	47	280	0	0	0	0	0	21	14	9	0	82	453
845-900	42	267	0	0	0	0	0	33	22	5	0	60	429
900-915	38	233	0	0	0	0	0	28	14	8	0	53	374
915-930	38	267	0	0	0	0	0	18	7	16	0	41	387
930-945	44	221	0	0	0	0	0	36	18	14	0	61	394
945-1000	54	219	0	0	0	0	0	32	18	7	0	50	380
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	180	1104	0	0	0	0	0	152	70	37	0	408	1951
715-815	192	1070	0	0	0	0	0	173	78	44	0	464	2021
730-830	207	1084	0	0	0	0	0	172	79	37	0	469	2048
745-845	203	1108	0	0	0	0	0	158	72	39	0	429	2009
800-900	195	1101	0	0	0	0	0	133	70	31	0	351	1881
815-915	185	1062	0	0	0	0	0	118	66	29	0	287	1747
830-930	165	1047	0	0	0	0	0	100	57	38	0	236	1643
845-945	162	988	0	0	0	0	0	115	61	43	0	215	1584
900-1000	174	940	0	0	0	0	0	114	57	45	0	205	1535

AM PEAK HOUR: 730-830



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	2	2
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	1	1
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	2	2

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	1	1
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	2	2
715-815	0	0	0	1	1
730-830	0	0	0	1	1
745-845	0	0	0	1	1
800-900	0	0	0	3	3

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	1	1
715-815	0	0	0	0	0
730-830	0	0	0	0	0
745-845	0	0	0	0	0
800-900	0	0	0	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

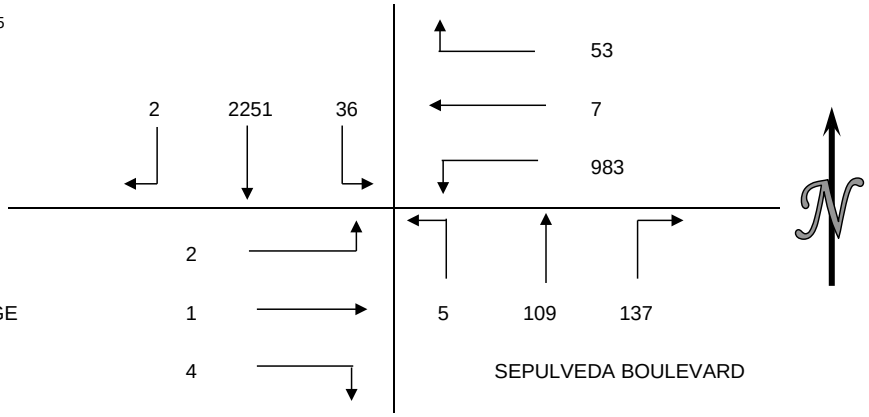
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W SKIRBALL CENTER BRIDGE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	4	487	5	15	1	308	32	11	1	0	0	0	864
715-730	0	456	8	5	2	241	38	13	1	1	0	0	765
730-745	0	472	15	12	3	288	58	25	2	5	0	0	880
745-800	1	505	8	17	3	254	72	31	2	0	0	0	893
800-815	2	495	12	21	2	300	46	21	0	3	1	0	903
815-830	0	523	7	14	3	256	43	29	1	2	0	0	878
830-845	1	532	5	20	1	238	38	24	1	0	0	0	860
845-900	1	514	14	14	1	276	41	29	1	0	0	0	891
900-915	0	557	4	13	4	259	38	28	1	2	1	0	907
915-930	0	579	12	13	2	231	27	30	3	1	0	1	899
930-945	1	601	6	13	0	217	31	22	0	1	0	1	893
945-1000	0	463	12	9	0	218	45	24	0	1	1	2	775
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	5	1920	36	49	9	1091	200	80	6	6	0	0	3402
715-815	3	1928	43	55	10	1083	214	90	5	9	1	0	3441
730-830	3	1995	42	64	11	1098	219	106	5	10	1	0	3554
745-845	4	2055	32	72	9	1048	199	105	4	5	1	0	3534
800-900	4	2064	38	69	7	1070	168	103	3	5	1	0	3532
815-915	2	2126	30	61	9	1029	160	110	4	4	1	0	3536
830-930	2	2182	35	60	8	1004	144	111	6	3	1	1	3557
845-945	2	2251	36	53	7	983	137	109	5	4	1	2	3590
900-1000	1	2200	34	48	6	925	141	104	4	5	2	4	3474

AM PEAK HOUR: 845-945



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	0	0
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	1	1
715-730	1	1	0	0	2
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	1	1
830-845	0	0	0	0	0
845-900	0	0	0	1	1

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	0	0
715-815	0	0	0	0	0
730-830	0	0	0	0	0
745-845	0	0	0	0	0
800-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	0	0	0	1	1
930-945	0	1	0	1	2
945-1000	0	1	0	0	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	1	1	0	1	3
715-815	1	1	0	0	2
730-830	0	0	0	1	1
745-845	0	0	0	1	1
800-900	0	0	0	2	2

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

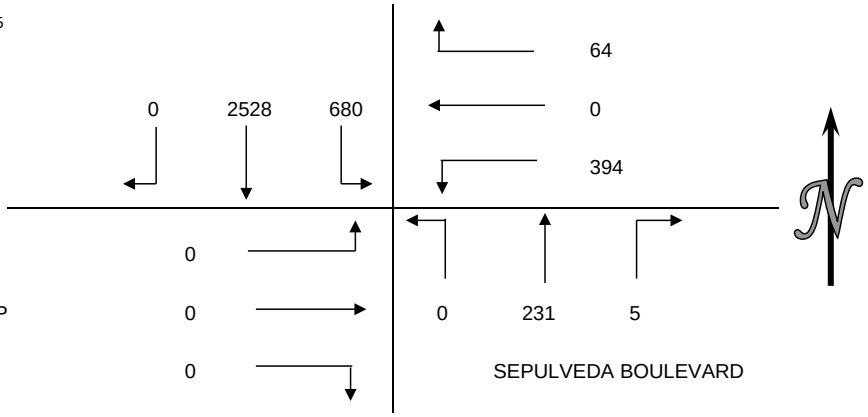
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W SOUTHBOUND I-405 RAMP
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	576	94	15	0	111	4	26	0	0	0	0	826
715-730	0	653	128	15	0	98	4	39	0	0	0	0	937
730-745	0	628	140	27	0	104	2	60	0	0	0	0	961
745-800	0	619	163	22	0	107	2	78	0	0	0	0	991
800-815	0	612	163	17	0	89	0	50	0	0	0	0	931
815-830	0	624	138	18	0	112	1	40	0	0	0	0	933
830-845	0	673	216	7	0	86	2	63	0	0	0	0	1047
845-900	0	620	160	10	0	72	3	61	0	0	0	0	926
900-915	0	627	163	10	0	74	8	56	0	0	0	0	938
915-930	0	615	178	10	0	48	2	48	0	0	0	0	901
930-945	0	574	199	18	0	51	1	43	0	0	0	0	886
945-1000	0	498	182	9	0	55	3	45	0	0	0	0	792
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	0	2476	525	79	0	420	12	203	0	0	0	0	3715
715-815	0	2512	594	81	0	398	8	227	0	0	0	0	3820
730-830	0	2483	604	84	0	412	5	228	0	0	0	0	3816
745-845	0	2528	680	64	0	394	5	231	0	0	0	0	3902
800-900	0	2529	677	52	0	359	6	214	0	0	0	0	3837
815-915	0	2544	677	45	0	344	14	220	0	0	0	0	3844
830-930	0	2535	717	37	0	280	15	228	0	0	0	0	3812
845-945	0	2436	700	48	0	245	14	208	0	0	0	0	3651
900-1000	0	2314	722	47	0	228	14	192	0	0	0	0	3517

AM PEAK HOUR: 745-845



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	0	0
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	1	1
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	1	1
830-845	0	0	0	1	1
845-900	0	0	0	1	1

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	0	0
715-815	0	0	0	0	0
730-830	0	0	0	0	0
745-845	0	0	0	0	0
800-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	0	1	0	1	2
930-945	0	1	0	1	2
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	1	1
715-815	0	0	0	0	0
730-830	0	0	0	1	1
745-845	0	0	0	2	2
800-900	0	0	0	3	3

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

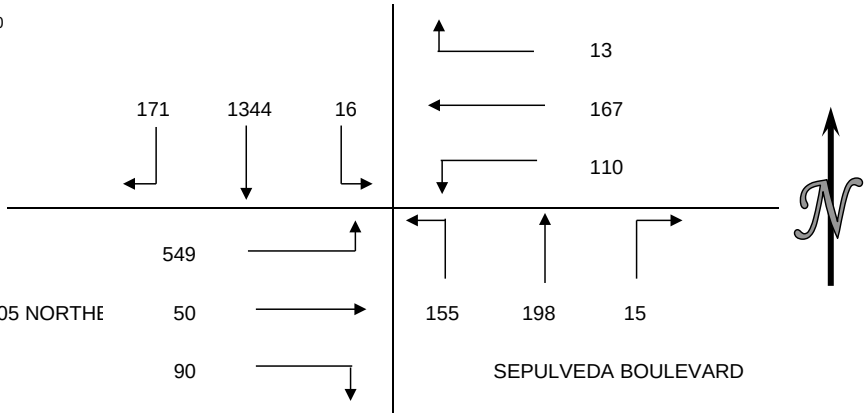
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W GREENLEAF STREET / I-405 NORTHBOUND RAMP
CITY: SHERMAN OAKS

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	50	301	1	2	46	32	2	15	42	11	7	75	584
715-730	65	227	6	3	74	25	2	33	38	12	3	72	560
730-745	44	253	5	0	72	17	4	33	42	12	9	106	597
745-800	50	289	2	2	67	21	4	33	43	18	12	107	648
800-815	47	359	3	4	67	29	2	29	40	29	9	109	727
815-830	43	302	0	3	68	41	5	32	39	17	7	153	710
830-845	48	251	1	3	81	28	2	38	42	32	20	125	671
845-900	39	211	1	4	58	24	2	28	40	20	11	135	573
900-915	31	361	8	2	34	26	8	58	40	20	13	130	731
915-930	35	331	1	0	49	45	2	36	46	28	10	151	734
930-945	69	376	3	5	41	21	3	55	29	26	17	158	803
945-1000	36	276	4	6	43	18	2	49	40	16	10	110	610
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	209	1070	14	7	259	95	12	114	165	53	31	360	2389
715-815	206	1128	16	9	280	92	12	128	163	71	33	394	2532
730-830	184	1203	10	9	274	108	15	127	164	76	37	475	2682
745-845	188	1201	6	12	283	119	13	132	164	96	48	494	2756
800-900	177	1123	5	14	274	122	11	127	161	98	47	522	2681
815-915	161	1125	10	12	241	119	17	156	161	89	51	543	2685
830-930	153	1154	11	9	222	123	14	160	168	100	54	541	2709
845-945	174	1279	13	11	182	116	15	177	155	94	51	574	2841
900-1000	171	1344	16	13	167	110	15	198	155	90	50	549	2878

AM PEAK HOUR: 900-1000



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	1	8	0	1	10
715-730	0	1	0	0	1
730-745	2	5	0	0	7
745-800	0	3	0	0	3
800-815	2	6	0	0	8
815-830	4	5	3	0	12
830-845	1	3	1	0	5
845-900	1	3	0	0	4

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	1	1
715-730	0	0	0	1	1
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	2	2
815-830	0	0	0	0	0
830-845	0	0	0	1	1
845-900	0	1	0	0	1

900-915	0	3	0	0	3
915-930	4	1	0	0	5
930-945	1	8	0	0	9
945-1000	1	5	1	0	7
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	3	17	0	1	21
715-815	4	15	0	0	19
730-830	8	19	3	0	30
745-845	7	17	4	0	28
800-900	8	17	4	0	29

900-915	0	0	0	1	1
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	2	2
715-815	0	0	0	3	3
730-830	0	0	0	2	2
745-845	0	0	0	3	3
800-900	0	1	0	3	4

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

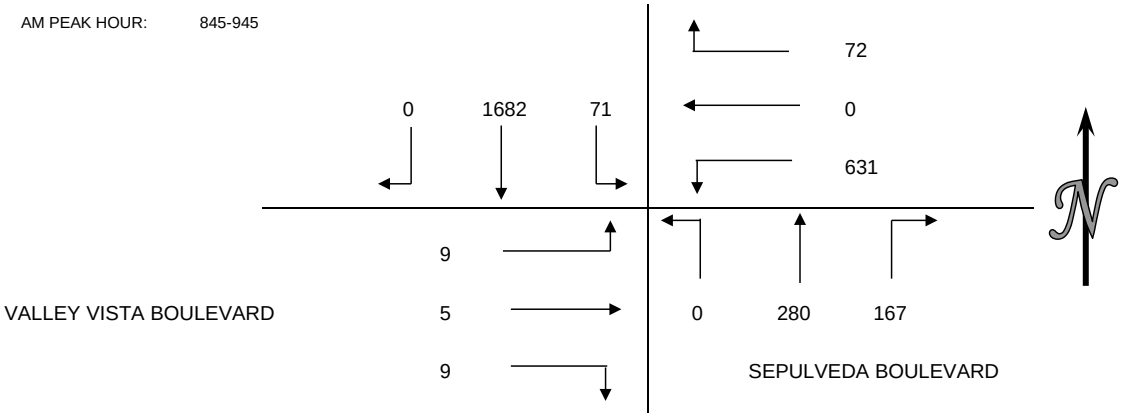
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W VALLEY VISTA BOULEVARD
CITY: SHERMAN OAKS

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	1	330	20	2	0	97	21	32	0	6	1	7	517
715-730	0	322	9	4	0	151	31	50	0	2	1	7	577
730-745	0	307	5	5	0	174	26	56	0	2	3	5	583
745-800	0	398	13	7	0	143	31	60	0	0	3	3	658
800-815	0	430	11	4	1	187	34	51	0	5	1	1	725
815-830	0	376	20	9	0	179	35	61	0	2	1	3	686
830-845	0	304	7	12	0	187	53	61	0	3	2	3	632
845-900	0	381	11	6	0	198	47	67	0	3	3	3	719
900-915	0	472	18	15	0	163	40	71	0	2	1	4	786
915-930	0	401	15	37	0	128	48	73	0	3	0	2	707
930-945	0	428	27	14	0	142	32	69	0	1	1	0	714
945-1000	2	391	30	8	0	125	25	53	0	0	0	2	636
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	1	1357	47	18	0	565	109	198	0	10	8	22	2335
715-815	0	1457	38	20	1	655	122	217	0	9	8	16	2543
730-830	0	1511	49	25	1	683	126	228	0	9	8	12	2652
745-845	0	1508	51	32	1	696	153	233	0	10	7	10	2701
800-900	0	1491	49	31	1	751	169	240	0	13	7	10	2762
815-915	0	1533	56	42	0	727	175	260	0	10	7	13	2823
830-930	0	1558	51	70	0	676	188	272	0	11	6	12	2844
845-945	0	1682	71	72	0	631	167	280	0	9	5	9	2926
900-1000	2	1692	90	74	0	558	145	266	0	6	2	8	2843

AM PEAK HOUR: 845-945



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	1	0	0	1
715-730	3	4	0	1	8
730-745	3	4	0	2	9
745-800	3	1	0	1	5
800-815	1	1	0	3	5
815-830	2	3	0	2	7
830-845	5	2	0	0	7
845-900	3	1	0	1	5

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	1	1
715-730	1	0	0	2	3
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	1	1
815-830	0	0	0	0	0
830-845	0	0	0	1	1
845-900	2	0	0	2	4

900-915	1	1	0	0	2
915-930	3	3	0	1	7
930-945	0	0	0	0	0
945-1000	1	1	0	0	2
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	9	10	0	4	23
715-815	10	10	0	7	27
730-830	9	9	0	8	26
745-845	11	7	0	6	24
800-900	11	7	0	6	24

900-915	0	0	0	1	1
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	1	0	0	3	4
715-815	1	0	0	3	4
730-830	0	0	0	1	1
745-845	0	0	0	2	2
800-900	2	0	0	4	6

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

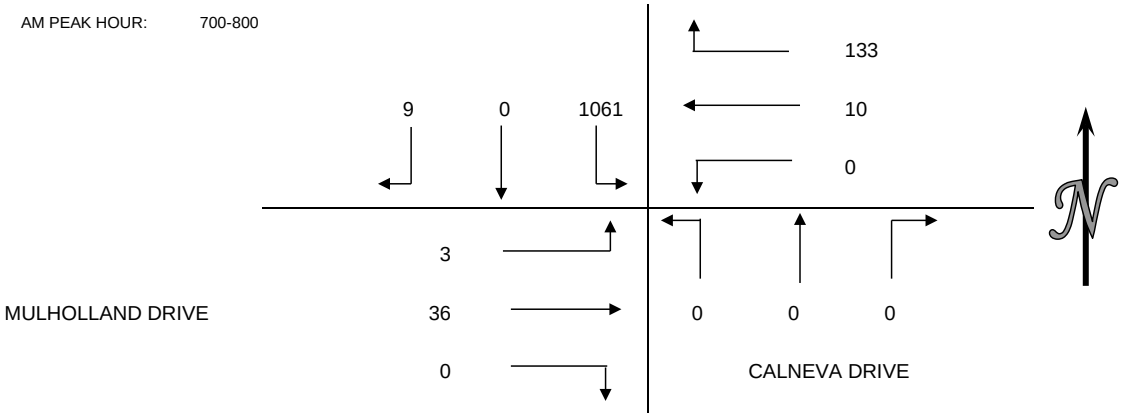
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S CALNEVA DRIVE
E/W MULHOLLAND DRIVE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	3	0	271	16	0	0	0	0	0	0	4	0	294
715-730	4	0	283	24	2	0	0	0	0	0	1	0	314
730-745	2	0	276	43	5	0	0	0	0	0	12	2	340
745-800	0	0	231	50	3	0	0	0	0	0	19	1	304
800-815	0	0	214	54	11	0	0	0	0	0	5	0	284
815-830	1	0	239	35	7	0	0	0	0	0	14	1	297
830-845	0	0	257	23	3	0	0	0	0	0	11	2	296
845-900	0	0	230	32	5	0	0	0	0	0	11	2	280
900-915	1	0	207	43	4	0	0	0	0	0	12	0	267
915-930	3	0	193	26	6	0	0	0	0	0	9	1	238
930-945	3	0	187	27	7	0	0	0	0	0	10	0	234
945-1000	3	0	161	24	5	0	0	0	0	0	9	1	203
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	9	0	1061	133	10	0	0	0	0	0	36	3	1252
715-815	6	0	1004	171	21	0	0	0	0	0	37	3	1242
730-830	3	0	960	182	26	0	0	0	0	0	50	4	1225
745-845	1	0	941	162	24	0	0	0	0	0	49	4	1181
800-900	1	0	940	144	26	0	0	0	0	0	41	5	1157
815-915	2	0	933	133	19	0	0	0	0	0	48	5	1140
830-930	4	0	887	124	18	0	0	0	0	0	43	5	1081
845-945	7	0	817	128	22	0	0	0	0	0	42	3	1019
900-1000	10	0	748	120	22	0	0	0	0	0	40	2	942

AM PEAK HOUR: 700-800



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	0	0
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-715	0	0	0	0	0
715-730	0	0	0	0	0
730-745	0	0	0	0	0
745-800	0	0	0	0	0
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	1	0	0	0	1
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	0	0
715-815	0	0	0	0	0
730-830	0	0	0	0	0
745-845	0	0	0	0	0
800-900	0	0	0	0	0

900-915	0	0	0	0	0
915-930	0	0	0	0	0
930-945	0	0	0	0	0
945-1000	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
700-800	0	0	0	0	0
715-815	0	0	0	0	0
730-830	0	0	0	0	0
745-845	0	0	0	0	0
800-900	0	0	0	0	0

WILTEC
Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

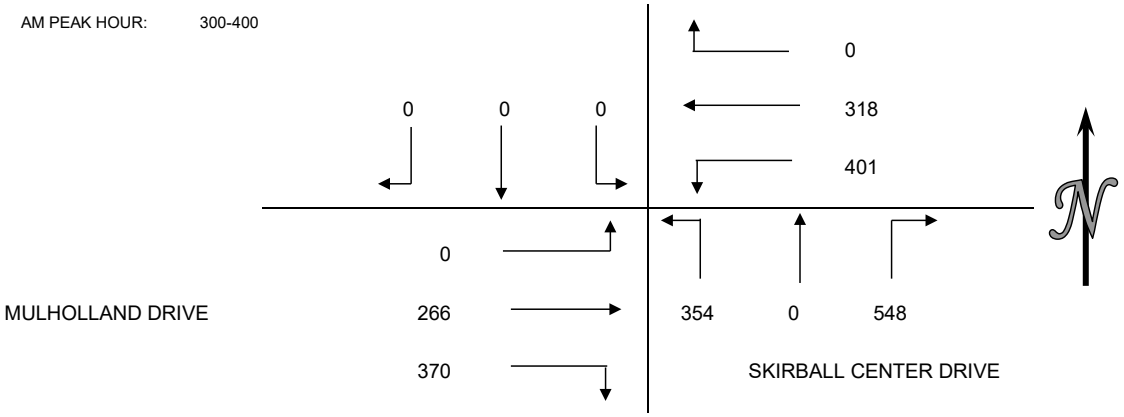
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: WEDNESDAY MAY 31 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SKIRBALL CENTER DRIVE
E/W MULHOLLAND DRIVE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	0	0	0	0	84	86	109	0	99	69	50	0	497
315-330	0	0	0	0	92	93	216	0	99	134	91	0	725
330-345	0	0	0	0	81	123	147	0	64	121	76	0	612
345-400	0	0	0	0	61	99	76	0	92	46	49	0	423
400-415	0	0	0	0	89	77	70	0	78	65	36	0	415
415-430	0	0	0	0	86	72	83	0	109	27	32	0	409
430-445	0	0	0	0	67	88	83	0	94	40	23	0	395
445-500	0	0	0	0	105	53	89	0	126	49	25	0	447
500-515	0	0	0	0	82	60	69	0	123	41	23	0	398
515-530	0	0	0	0	107	47	103	0	91	29	22	0	399
530-545	0	0	0	0	93	49	103	0	113	25	25	0	408
545-600	0	0	0	0	79	48	112	0	105	29	28	0	401
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	0	0	0	0	318	401	548	0	354	370	266	0	2257
315-415	0	0	0	0	323	392	509	0	333	366	252	0	2175
330-430	0	0	0	0	317	371	376	0	343	259	193	0	1859
345-445	0	0	0	0	303	336	312	0	373	178	140	0	1642
400-500	0	0	0	0	347	290	325	0	407	181	116	0	1666
415-515	0	0	0	0	340	273	324	0	452	157	103	0	1649
430-530	0	0	0	0	361	248	344	0	434	159	93	0	1639
445-545	0	0	0	0	387	209	364	0	453	144	95	0	1652
500-600	0	0	0	0	361	204	387	0	432	124	98	0	1606

AM PEAK HOUR: 300-400



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	1	0	1
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	1	0	1
430-445	0	0	0	0	0
445-500	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	1	0	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	1	0	1
315-415	0	0	1	0	1
330-430	0	0	2	0	2
345-445	0	0	1	0	1
400-500	0	0	1	0	1

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

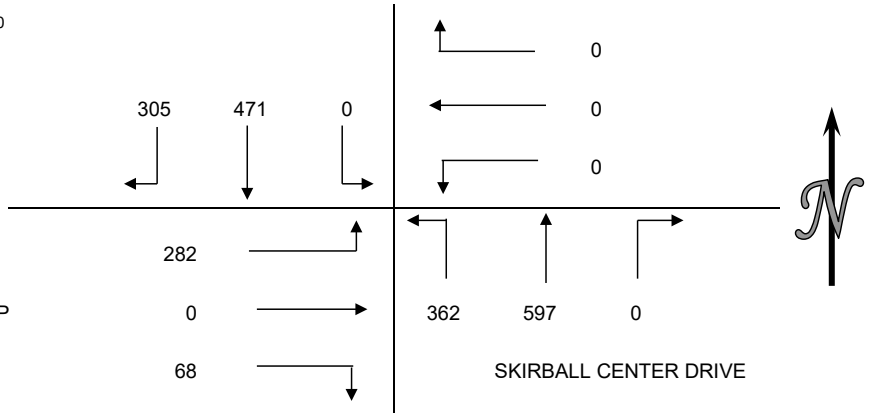
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: WEDNESDAY MAY 31 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SKIRBALL CENTER DRIVE
E/W NORTHBOUND I-405 RAMP
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	73	84	0	0	0	0	0	149	80	9	0	90	485
315-330	95	126	0	0	0	0	0	228	108	10	0	67	634
330-345	83	155	0	0	0	0	0	120	97	24	0	72	551
345-400	54	106	0	0	0	0	0	100	77	25	0	53	415
400-415	55	83	0	0	0	0	0	90	96	25	0	56	405
415-430	42	60	0	0	0	0	0	118	134	22	0	73	449
430-445	72	63	0	0	0	0	0	116	177	15	0	59	502
445-500	50	60	0	0	0	0	0	111	169	17	0	81	488
500-515	43	56	0	0	0	0	0	123	175	15	0	75	487
515-530	32	40	0	0	0	0	0	110	121	26	0	74	403
530-545	33	53	0	0	0	0	0	126	148	23	0	88	471
545-600	27	48	0	0	0	0	0	133	149	23	0	76	456
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	305	471	0	0	0	0	0	597	362	68	0	282	2085
315-415	287	470	0	0	0	0	0	538	378	84	0	248	2005
330-430	234	404	0	0	0	0	0	428	404	96	0	254	1820
345-445	223	312	0	0	0	0	0	424	484	87	0	241	1771
400-500	219	266	0	0	0	0	0	435	576	79	0	269	1844
415-515	207	239	0	0	0	0	0	468	655	69	0	288	1926
430-530	197	219	0	0	0	0	0	460	642	73	0	289	1880
445-545	158	209	0	0	0	0	0	470	613	81	0	318	1849
500-600	135	197	0	0	0	0	0	492	593	87	0	313	1817

AM PEAK HOUR: 300-400



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	1	1
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	1	1
430-445	0	0	0	0	0
445-500	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	1	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	1	1
315-415	0	0	0	1	1
330-430	0	0	0	1	1
345-445	0	0	0	1	1
400-500	0	0	0	1	1

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

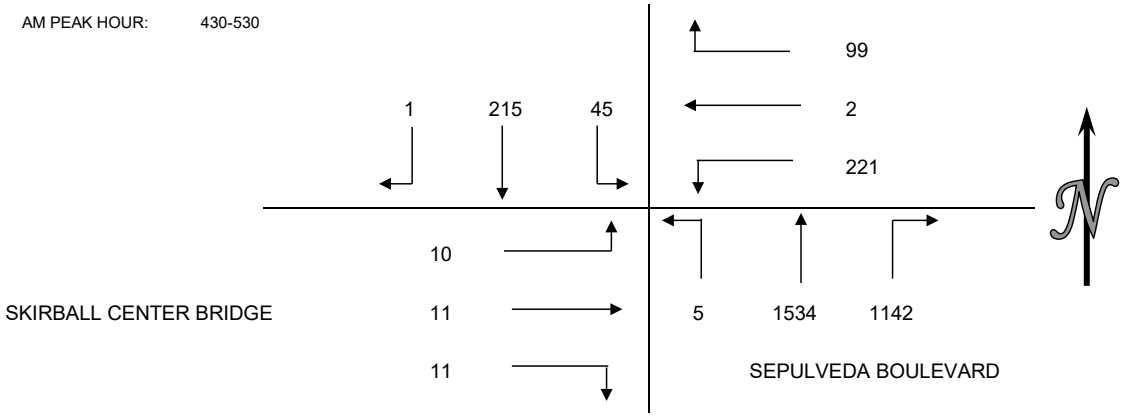
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W SKIRBALL CENTER BRIDGE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	0	67	8	14	0	86	214	210	5	2	2	1	609
315-330	4	60	10	25	4	118	239	240	8	4	2	3	717
330-345	2	66	7	34	2	144	222	328	10	3	2	2	822
345-400	2	58	11	31	2	95	219	325	10	2	3	1	759
400-415	1	61	10	27	2	68	193	385	3	5	2	0	757
415-430	0	72	8	28	1	57	221	412	2	2	3	0	806
430-445	0	56	9	18	0	72	284	424	2	2	1	1	869
445-500	0	59	6	22	0	47	295	382	1	2	2	0	816
500-515	1	51	16	30	1	49	280	356	2	5	4	7	802
515-530	0	49	14	29	1	53	283	372	0	2	4	2	809
530-545	0	77	16	26	0	30	264	395	1	2	3	1	815
545-600	1	60	8	28	1	50	236	375	0	1	4	2	766
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	8	251	36	104	8	443	894	1103	33	11	9	7	2907
315-415	9	245	38	117	10	425	873	1278	31	14	9	6	3055
330-430	5	257	36	120	7	364	855	1450	25	12	10	3	3144
345-445	3	247	38	104	5	292	917	1546	17	11	9	2	3191
400-500	1	248	33	95	3	244	993	1603	8	11	8	1	3248
415-515	1	238	39	98	2	225	1080	1574	7	11	10	8	3293
430-530	1	215	45	99	2	221	1142	1534	5	11	11	10	3296
445-545	1	236	52	107	2	179	1122	1505	4	11	13	10	3242
500-600	2	237	54	113	3	182	1063	1498	3	10	15	12	3192

AM PEAK HOUR: 430-530



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	1	1
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	1	0	0	1
445-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	1	1
315-415	0	0	0	1	1
330-430	0	0	0	1	1
345-445	0	1	0	0	1
400-500	0	1	0	0	1

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

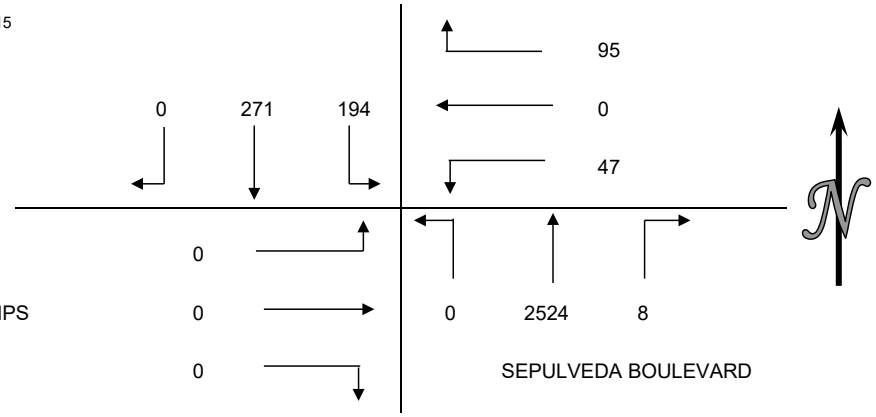
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W SOUTHBOUND I-405 RAMPS
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	0	97	56	51	0	29	2	411	0	0	0	0	646
315-330	0	99	86	66	0	18	3	504	0	0	0	0	776
330-345	0	109	102	39	0	21	2	433	0	0	0	0	706
345-400	0	96	68	35	0	12	2	470	0	0	0	0	683
400-415	0	75	55	26	0	11	0	549	0	0	0	0	716
415-430	0	75	49	31	0	14	1	619	0	0	0	0	789
430-445	0	68	55	24	0	14	1	667	0	0	0	0	829
445-500	0	66	48	19	0	6	4	591	0	0	0	0	734
500-515	0	62	42	21	0	13	2	647	0	0	0	0	787
515-530	0	67	34	15	0	14	6	593	0	0	0	0	729
530-545	0	77	37	23	0	24	2	585	0	0	0	0	748
545-600	0	76	30	22	0	21	3	596	0	0	0	0	748
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	0	401	312	191	0	80	9	1818	0	0	0	0	2811
315-415	0	379	311	166	0	62	7	1956	0	0	0	0	2881
330-430	0	355	274	131	0	58	5	2071	0	0	0	0	2894
345-445	0	314	227	116	0	51	4	2305	0	0	0	0	3017
400-500	0	284	207	100	0	45	6	2426	0	0	0	0	3068
415-515	0	271	194	95	0	47	8	2524	0	0	0	0	3139
430-530	0	263	179	79	0	47	13	2498	0	0	0	0	3079
445-545	0	272	161	78	0	57	14	2416	0	0	0	0	2998
500-600	0	282	143	81	0	72	13	2421	0	0	0	0	3012

AM PEAK HOUR: 415-515



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	1	1
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	1	0	0	1
430-445	0	0	0	1	1
445-500	0	3	0	0	3

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

500-515	0	1	0	0	1
515-530	0	0	0	2	2
530-545	0	0	0	0	0
545-600	0	1	0	0	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	1	1
315-415	0	0	0	1	1
330-430	0	1	0	0	1
345-445	0	1	0	1	2
400-500	0	4	0	1	5

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

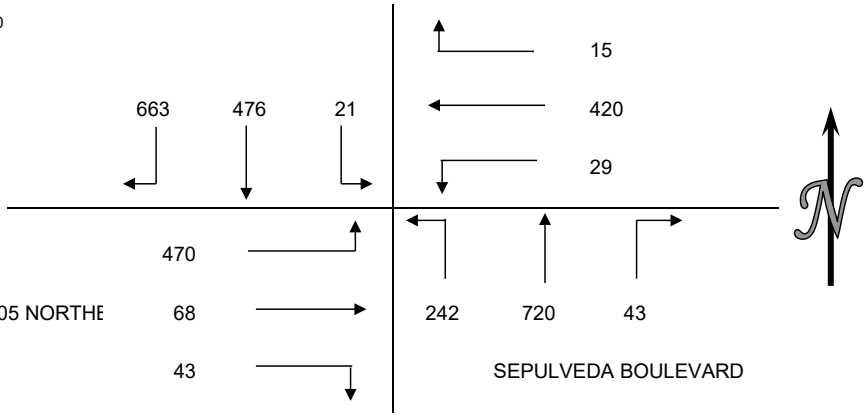
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W GREENLEAF STREET / I-405 NORTHBOUND RAMP
CITY: SHERMAN OAKS

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	119	109	4	5	71	8	6	135	63	13	16	162	711
315-330	107	110	4	4	85	17	3	154	69	9	13	135	710
330-345	107	122	4	2	83	9	8	180	63	5	13	131	727
345-400	112	104	5	16	91	10	13	158	69	10	18	130	736
400-415	142	122	6	2	82	7	16	189	58	8	15	138	785
415-430	116	95	3	2	126	9	11	167	60	15	16	122	742
430-445	166	102	4	5	93	7	6	216	64	5	18	130	816
445-500	116	124	7	3	98	8	10	159	63	11	16	115	730
500-515	204	133	5	5	104	4	9	171	57	23	11	119	845
515-530	177	117	5	2	125	10	18	174	58	4	23	106	819
530-545	159	101	4	3	97	10	12	154	57	4	15	151	767
545-600	129	79	8	4	112	3	8	151	59	11	14	138	716
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	445	445	17	27	330	44	30	627	264	37	60	558	2884
315-415	468	458	19	24	341	43	40	681	259	32	59	534	2958
330-430	477	443	18	22	382	35	48	694	250	38	62	521	2990
345-445	536	423	18	25	392	33	46	730	251	38	67	520	3079
400-500	540	443	20	12	399	31	43	731	245	39	65	505	3073
415-515	602	454	19	15	421	28	36	713	244	54	61	486	3133
430-530	663	476	21	15	420	29	43	720	242	43	68	470	3210
445-545	656	475	21	13	424	32	49	658	235	42	65	491	3161
500-600	669	430	22	14	438	27	47	650	231	42	63	514	3147

AM PEAK HOUR: 430-530



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	1	4	0	0	5
315-330	1	2	2	0	5
330-345	6	6	2	0	14
345-400	3	4	2	0	9
400-415	0	1	0	0	1
415-430	3	5	1	0	9
430-445	2	5	1	0	8
445-500	0	4	2	0	6

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	1	0	0	1

500-515	11	11	4	0	26
515-530	4	2	0	0	6
530-545	5	7	4	0	16
545-600	2	2	0	0	4
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	11	16	6	0	33
315-415	10	13	6	0	29
330-430	12	16	5	0	33
345-445	8	15	4	0	27
400-500	5	15	4	0	24

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	1	0	0	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	1	0	0	1

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

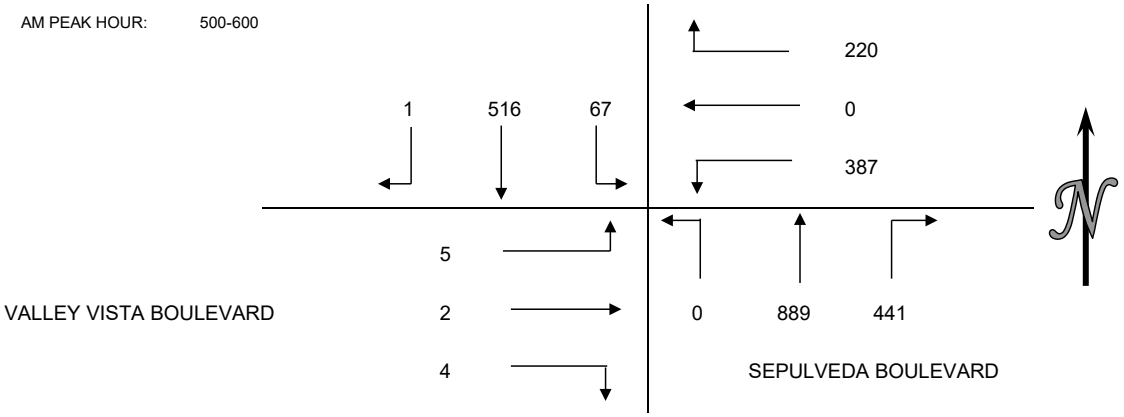
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SEPULVEDA BOULEVARD
E/W VALLEY VISTA BOULEVARD
CITY: SHERMAN OAKS

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	0	114	22	55	0	71	59	154	0	1	0	0	476
315-330	0	126	25	70	0	67	74	193	0	0	0	5	560
330-345	0	122	12	58	0	73	98	181	0	2	0	1	547
345-400	0	119	22	55	0	81	93	248	0	1	0	0	619
400-415	0	108	13	66	0	98	109	206	0	0	0	1	601
415-430	0	126	20	45	0	85	124	247	0	0	0	0	647
430-445	0	101	17	40	0	57	91	212	0	0	0	3	521
445-500	0	122	19	53	0	58	116	243	0	0	1	1	613
500-515	0	122	18	55	0	88	99	230	0	0	0	0	612
515-530	0	138	19	46	0	100	106	209	0	1	0	2	621
530-545	1	138	11	61	0	102	104	244	0	1	0	2	664
545-600	0	118	19	58	0	97	132	206	0	2	2	1	635
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	0	481	81	238	0	292	324	776	0	4	0	6	2202
315-415	0	475	72	249	0	319	374	828	0	3	0	7	2327
330-430	0	475	67	224	0	337	424	882	0	3	0	2	2414
345-445	0	454	72	206	0	321	417	913	0	1	0	4	2388
400-500	0	457	69	204	0	298	440	908	0	0	1	5	2382
415-515	0	471	74	193	0	288	430	932	0	0	1	4	2393
430-530	0	483	73	194	0	303	412	894	0	1	1	6	2367
445-545	1	520	67	215	0	348	425	926	0	2	1	5	2510
500-600	1	516	67	220	0	387	441	889	0	4	2	5	2532

AM PEAK HOUR: 500-600



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	1	1	0	0	2
315-330	1	0	0	0	1
330-345	3	0	0	1	4
345-400	1	0	0	1	2
400-415	0	0	0	0	0
415-430	0	1	0	0	1
430-445	0	1	0	0	1
445-500	3	1	0	0	4

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	1	1
315-330	2	0	0	2	4
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	1	0	0	1	2
445-500	0	2	0	0	2

500-515	0	1	0	0	1
515-530	0	1	0	0	1
530-545	0	0	0	0	0
545-600	2	0	0	3	5
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	6	1	0	2	9
315-415	5	0	0	2	7
330-430	4	1	0	2	7
345-445	1	2	0	1	4
400-500	3	3	0	0	6

500-515	0	0	0	0	0
515-530	1	0	0	1	2
530-545	0	0	0	0	0
545-600	0	1	0	0	1
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	2	0	0	3	5
315-415	2	0	0	2	4
330-430	0	0	0	0	0
345-445	1	0	0	1	2
400-500	1	2	0	1	4

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 info@wiltecusa.com

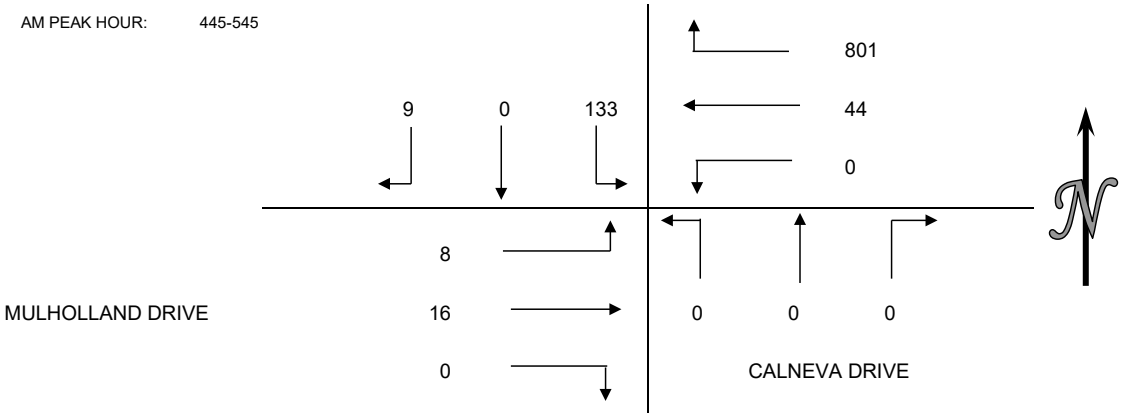
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL
DATE: THURSDAY JUNE 1 2017
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S CALNEVA DRIVE
E/W MULHOLLAND DRIVE
CITY: LOS ANGELES

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-315	2	0	60	111	11	0	0	0	0	0	6	1	191
315-330	4	0	55	125	7	0	0	0	0	0	11	6	208
330-345	1	0	49	164	10	0	0	0	0	0	9	3	236
345-400	1	0	29	140	7	0	0	0	0	0	2	3	182
400-415	2	0	28	153	3	0	0	0	0	0	3	4	193
415-430	1	0	35	145	6	0	0	0	0	0	4	3	194
430-445	3	0	32	176	7	0	0	0	0	0	5	1	224
445-500	0	0	31	193	5	0	0	0	0	0	4	2	235
500-515	2	0	34	183	11	0	0	0	0	0	6	5	241
515-530	4	0	32	219	11	0	0	0	0	0	2	0	268
530-545	3	0	36	206	17	0	0	0	0	0	4	1	267
545-600	2	0	35	158	14	0	0	0	0	0	2	2	213
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
300-400	8	0	193	540	35	0	0	0	0	0	28	13	817
315-415	8	0	161	582	27	0	0	0	0	0	25	16	819
330-430	5	0	141	602	26	0	0	0	0	0	18	13	805
345-445	7	0	124	614	23	0	0	0	0	0	14	11	793
400-500	6	0	126	667	21	0	0	0	0	0	16	10	846
415-515	6	0	132	697	29	0	0	0	0	0	19	11	894
430-530	9	0	129	771	34	0	0	0	0	0	17	8	968
445-545	9	0	133	801	44	0	0	0	0	0	16	8	1011
500-600	11	0	137	766	53	0	0	0	0	0	14	8	989

AM PEAK HOUR: 445-545



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

BICYCLE COUNTS

15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-315	0	0	0	0	0
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	0	0	0	0
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

500-515	0	0	0	0	0
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH	EAST	SOUTH	WEST	TOTAL
PERIOD	LEG	LEG	LEG	LEG	
300-400	0	0	0	0	0
315-415	0	0	0	0	0
330-430	0	0	0	0	0
345-445	0	0	0	0	0
400-500	0	0	0	0	0

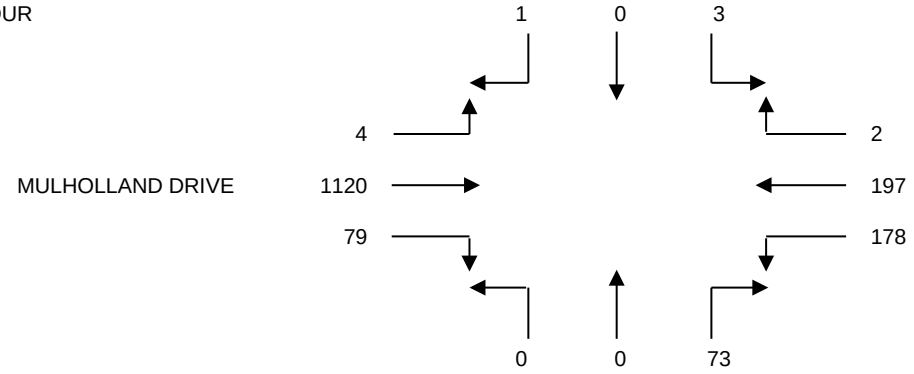
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S MIRMAN SCHOOL MAIN ENTRANCE
E/W MULHOLLAND DRIVE
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	2	0	0	2	29	25	8	0	1	11	261	1
0715-0730	1	0	0	1	51	39	11	0	0	21	304	1
0730-0745	0	0	0	0	44	59	21	0	0	31	255	1
0745-0800	0	0	0	1	43	66	31	0	0	19	257	2
0800-0815	0	0	3	0	59	14	10	0	0	8	304	0
0815-0830	2	0	1	0	65	13	4	0	2	2	333	0
0830-0845	1	0	2	1	64	12	4	0	3	4	272	2
0845-0900	2	0	10	2	42	5	7	0	1	5	280	0
0900-0915	10	0	12	4	52	6	5	0	1	0	312	1
0915-0930	6	0	7	2	42	1	2	0	1	0	304	1
0930-0945	0	0	4	5	46	2	3	0	0	0	267	1
0945-1000	0	0	1	5	47	0	0	0	0	2	210	1

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	3	0	0	4	167	189	71	0	1	82	1077	5	1599
0715-0815	1	0	3	2	197	178	73	0	0	79	1120	4	1657
0730-0830	2	0	4	1	211	152	66	0	2	60	1149	3	1650
0745-0845	3	0	6	2	231	105	49	0	5	33	1166	4	1604
0800-0900	5	0	16	3	230	44	25	0	6	19	1189	2	1539
0815-0915	15	0	25	7	223	36	20	0	7	11	1197	3	1544
0830-0930	19	0	31	9	200	24	18	0	6	9	1168	4	1488
0845-0945	18	0	33	13	182	14	17	0	3	5	1163	3	1451
0900-1000	16	0	24	16	187	9	10	0	2	2	1093	4	1363

A.M. PEAK HOUR
0715-0815



MIRMAN SCHOOL MAIN ENTRANCE

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION N/S MIRMAN SCHOOL MAIN ENTRANCE
E/W MULHOLLAND DRIVE
FILE NUMBER: 1-PM

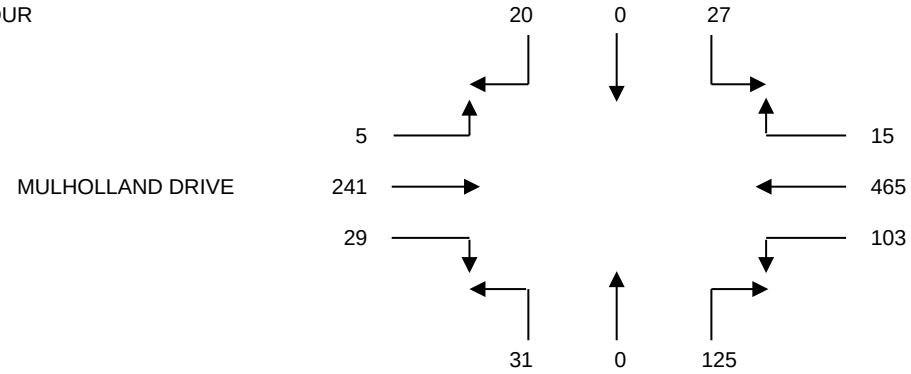
15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	52	5	3	0	2	2	45	0
0215-0230	0	0	0	5	56	9	1	0	0	2	61	0
0230-0245	1	0	2	4	83	15	2	0	0	3	40	0
0245-0300	3	0	1	1	108	38	2	0	0	7	59	3
0300-0315	9	0	11	4	120	43	49	0	8	13	57	0
0315-0330	4	0	7	5	104	10	64	0	17	6	89	2
0330-0345	4	0	8	5	133	12	10	0	6	3	36	0
0345-0400	5	0	6	3	134	6	3	0	5	2	46	0
0400-0415	1	0	1	1	159	9	5	0	4	0	34	0
0415-0430	0	0	0	0	132	9	6	0	2	2	29	0
0430-0445	3	0	0	1	157	3	4	0	2	0	44	1
0445-0500	0	0	1	0	180	5	5	0	3	3	31	0
0500-0515	0	0	0	1	178	6	0	0	3	1	42	0
0515-0530	0	0	0	1	172	11	1	0	0	0	35	0
0530-0545	0	0	1	1	160	6	0	0	0	2	42	1
0545-0600	0	0	2	7	186	14	5	0	0	2	40	1

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	4	0	3	10	299	67	8	0	2	14	205	3	615
0215-0315	13	0	14	14	367	105	54	0	8	25	217	3	820
0230-0330	17	0	21	14	415	106	117	0	25	29	245	5	994
0245-0345	20	0	27	15	465	103	125	0	31	29	241	5	1061
0300-0400	22	0	32	17	491	71	126	0	36	24	228	2	1049
0315-0415	14	0	22	14	530	37	82	0	32	11	205	2	949
0330-0430	10	0	15	9	558	36	24	0	17	7	145	0	821
0345-0445	9	0	7	5	582	27	18	0	13	4	153	1	819
0400-0500	4	0	2	2	628	26	20	0	11	5	138	1	837
0415-0515	3	0	1	2	647	23	15	0	10	6	146	1	854
0430-0530	3	0	1	3	687	25	10	0	8	4	152	1	894
0445-0545	0	0	2	3	690	28	6	0	6	6	150	1	892
0500-0600	0	0	3	10	696	37	6	0	3	5	159	2	921

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

P.M. PEAK HOUR
0245-0345



MIRMAN SCHOOL MAIN ENTRANCE

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

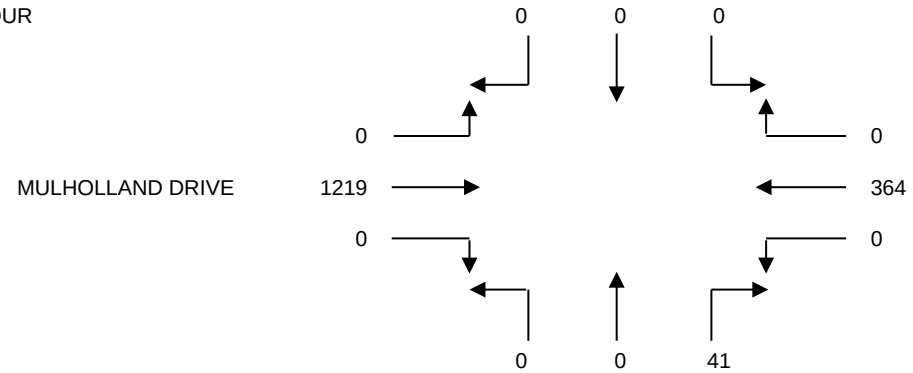
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S MIRMAN SCHOOL DRIVEWAY # 2
E/W MULHOLLAND DRIVE
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	0	0	0	56	0	1	0	0	0	269	0
0715-0730	0	0	0	0	91	0	5	0	0	0	315	0
0730-0745	0	0	0	0	103	0	13	0	0	0	276	0
0745-0800	0	0	0	0	110	0	21	0	0	0	288	0
0800-0815	0	0	0	0	73	0	6	0	0	0	317	0
0815-0830	0	0	0	0	78	0	1	0	0	0	338	0
0830-0845	0	0	0	0	77	0	2	0	0	0	278	0
0845-0900	0	0	0	0	49	0	2	0	0	0	297	0
0900-0915	0	0	0	0	62	0	0	0	0	1	328	0
0915-0930	0	0	0	0	45	0	0	0	0	0	313	0
0930-0945	0	0	0	0	53	0	1	0	0	0	274	0
0945-1000	0	0	0	0	52	0	0	0	0	0	211	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	0	0	0	0	360	0	40	0	0	0	1148	0	1548
0715-0815	0	0	0	0	377	0	45	0	0	0	1196	0	1618
0730-0830	0	0	0	0	364	0	41	0	0	0	1219	0	1624
0745-0845	0	0	0	0	338	0	30	0	0	0	1221	0	1589
0800-0900	0	0	0	0	277	0	11	0	0	0	1230	0	1518
0815-0915	0	0	0	0	266	0	5	0	0	1	1241	0	1513
0830-0930	0	0	0	0	233	0	4	0	0	1	1216	0	1454
0845-0945	0	0	0	0	209	0	3	0	0	1	1212	0	1425
0900-1000	0	0	0	0	212	0	1	0	0	1	1126	0	1340

A.M. PEAK HOUR
0730-0830



MIRMAN SCHOOL DRIVEWAY # 2

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION N/S MIRMAN SCHOOL DRIVEWAY # 2
E/W MULHOLLAND DRIVE
FILE NUMBER: 2-PM

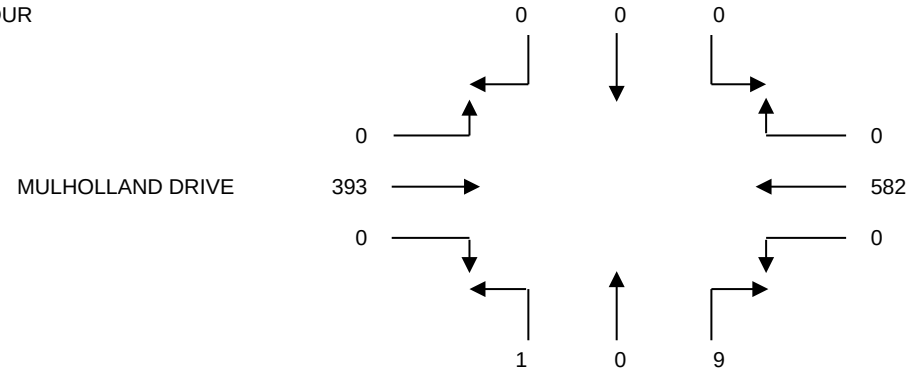
15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	57	0	1	0	0	0	48	0
0215-0230	0	0	0	0	70	0	0	0	0	0	62	0
0230-0245	0	0	0	0	102	0	1	0	0	0	44	0
0245-0300	0	0	0	0	147	0	1	0	0	0	62	0
0300-0315	0	0	0	0	167	0	3	0	0	0	117	0
0315-0330	0	0	0	0	118	0	4	0	1	0	160	0
0330-0345	0	0	0	0	150	0	1	0	0	0	54	0
0345-0400	0	0	0	0	143	0	4	0	0	0	55	0
0400-0415	0	0	0	0	169	0	6	0	0	0	40	0
0415-0430	0	0	0	0	140	0	6	0	1	0	35	0
0430-0445	0	0	0	0	161	0	6	0	0	0	48	0
0445-0500	0	0	0	0	183	0	5	0	2	0	37	0
0500-0515	0	0	0	0	184	0	3	0	1	0	42	0
0515-0530	0	0	0	0	184	0	1	0	0	0	36	0
0530-0545	0	0	0	0	167	0	3	0	0	0	43	0
0545-0600	0	0	0	0	206	0	3	0	1	0	47	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	0	0	0	376	0	3	0	0	0	216	0	595
0215-0315	0	0	0	0	486	0	5	0	0	0	285	0	776
0230-0330	0	0	0	0	534	0	9	0	1	0	383	0	927
0245-0345	0	0	0	0	582	0	9	0	1	0	393	0	985
0300-0400	0	0	0	0	578	0	12	0	1	0	386	0	977
0315-0415	0	0	0	0	580	0	15	0	1	0	309	0	905
0330-0430	0	0	0	0	602	0	17	0	1	0	184	0	804
0345-0445	0	0	0	0	613	0	22	0	1	0	178	0	814
0400-0500	0	0	0	0	653	0	23	0	3	0	160	0	839
0415-0515	0	0	0	0	668	0	20	0	4	0	162	0	854
0430-0530	0	0	0	0	712	0	15	0	3	0	163	0	893
0445-0545	0	0	0	0	718	0	12	0	3	0	158	0	891
0500-0600	0	0	0	0	741	0	10	0	2	0	168	0	921

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

P.M. PEAK HOUR
0245-0345



MIRMAN SCHOOL DRIVEWAY # 2

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

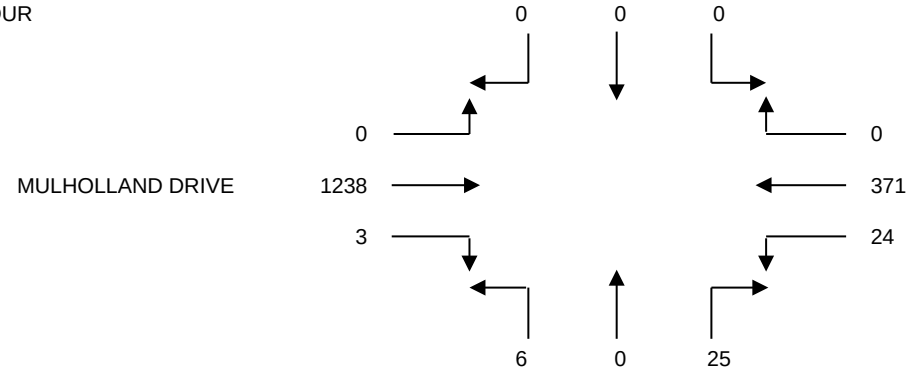
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S MIRMAN SCHOOL DRIVEWAY # 3
E/W MULHOLLAND DRIVE
FILE NUMBER: 3-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	0	0	0	56	0	1	0	0	0	270	0
0715-0730	0	0	0	0	90	14	7	0	1	0	320	0
0730-0745	0	0	0	0	100	5	4	0	3	2	287	0
0745-0800	0	0	0	0	108	4	6	0	2	0	309	0
0800-0815	0	0	0	0	73	1	8	0	0	1	322	0
0815-0830	0	0	0	0	78	0	6	0	0	0	339	0
0830-0845	0	0	0	0	76	0	2	0	1	0	280	0
0845-0900	0	0	0	0	49	0	0	0	0	0	299	0
0900-0915	0	0	0	0	62	0	1	0	0	0	328	0
0915-0930	0	0	0	0	45	0	1	0	0	0	313	0
0930-0945	0	0	0	0	53	1	0	0	0	0	275	0
0945-1000	0	0	0	0	52	0	1	0	0	0	211	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	0	0	0	0	354	23	18	0	6	2	1186	0	1589
0715-0815	0	0	0	0	371	24	25	0	6	3	1238	0	1667
0730-0830	0	0	0	0	359	10	24	0	5	3	1257	0	1658
0745-0845	0	0	0	0	335	5	22	0	3	1	1250	0	1616
0800-0900	0	0	0	0	276	1	16	0	1	1	1240	0	1535
0815-0915	0	0	0	0	265	0	9	0	1	0	1246	0	1521
0830-0930	0	0	0	0	232	0	4	0	1	0	1220	0	1457
0845-0945	0	0	0	0	209	1	2	0	0	0	1215	0	1427
0900-1000	0	0	0	0	212	1	3	0	0	0	1127	0	1343

A.M. PEAK HOUR
0715-0815



MIRMAN SCHOOL DRIVEWAY # 3

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: GIBSON TRANSPORTATION CONSULTING, INC.
PROJECT: MIRMAN SCHOOL - WEST L.A.
DATE: THURSDAY, MAY 28, 2015
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION N/S MIRMAN SCHOOL DRIVEWAY # 3
E/W MULHOLLAND DRIVE
FILE NUMBER: 3-PM

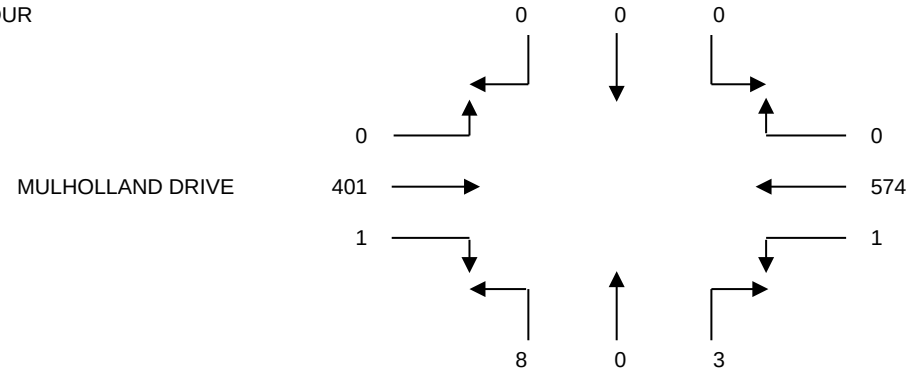
15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	56	0	1	0	1	0	49	0
0215-0230	0	0	0	0	68	1	2	0	2	0	62	0
0230-0245	0	0	0	0	98	0	0	0	4	0	45	0
0245-0300	0	0	0	0	146	1	1	0	1	0	63	0
0300-0315	0	0	0	0	163	0	2	0	4	0	120	0
0315-0330	0	0	0	0	118	0	0	0	0	1	163	0
0330-0345	0	0	0	0	147	0	0	0	3	0	55	0
0345-0400	0	0	0	0	142	0	5	0	1	2	57	0
0400-0415	0	0	0	0	168	0	6	0	1	0	46	0
0415-0430	0	0	0	0	139	1	3	0	1	0	41	0
0430-0445	0	0	0	0	160	1	8	0	1	0	54	0
0445-0500	0	0	0	0	182	1	8	0	1	0	42	0
0500-0515	0	0	0	0	183	1	3	0	1	0	45	0
0515-0530	0	0	0	0	184	0	1	0	0	1	36	0
0530-0545	0	0	0	0	167	0	1	0	0	0	46	0
0545-0600	0	0	0	0	206	0	0	0	0	0	50	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	0	0	0	368	2	4	0	8	0	219	0	601
0215-0315	0	0	0	0	475	2	5	0	11	0	290	0	783
0230-0330	0	0	0	0	525	1	3	0	9	1	391	0	930
0245-0345	0	0	0	0	574	1	3	0	8	1	401	0	988
0300-0400	0	0	0	0	570	0	7	0	8	3	395	0	983
0315-0415	0	0	0	0	575	0	11	0	5	3	321	0	915
0330-0430	0	0	0	0	596	1	14	0	6	2	199	0	818
0345-0445	0	0	0	0	609	2	22	0	4	2	198	0	837
0400-0500	0	0	0	0	649	3	25	0	4	0	183	0	864
0415-0515	0	0	0	0	664	4	22	0	4	0	182	0	876
0430-0530	0	0	0	0	709	3	20	0	3	1	177	0	913
0445-0545	0	0	0	0	716	2	13	0	2	1	169	0	903
0500-0600	0	0	0	0	740	1	5	0	1	1	177	0	925

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

P.M. PEAK HOUR
0245-0345



MIRMAN SCHOOL DRIVEWAY # 3

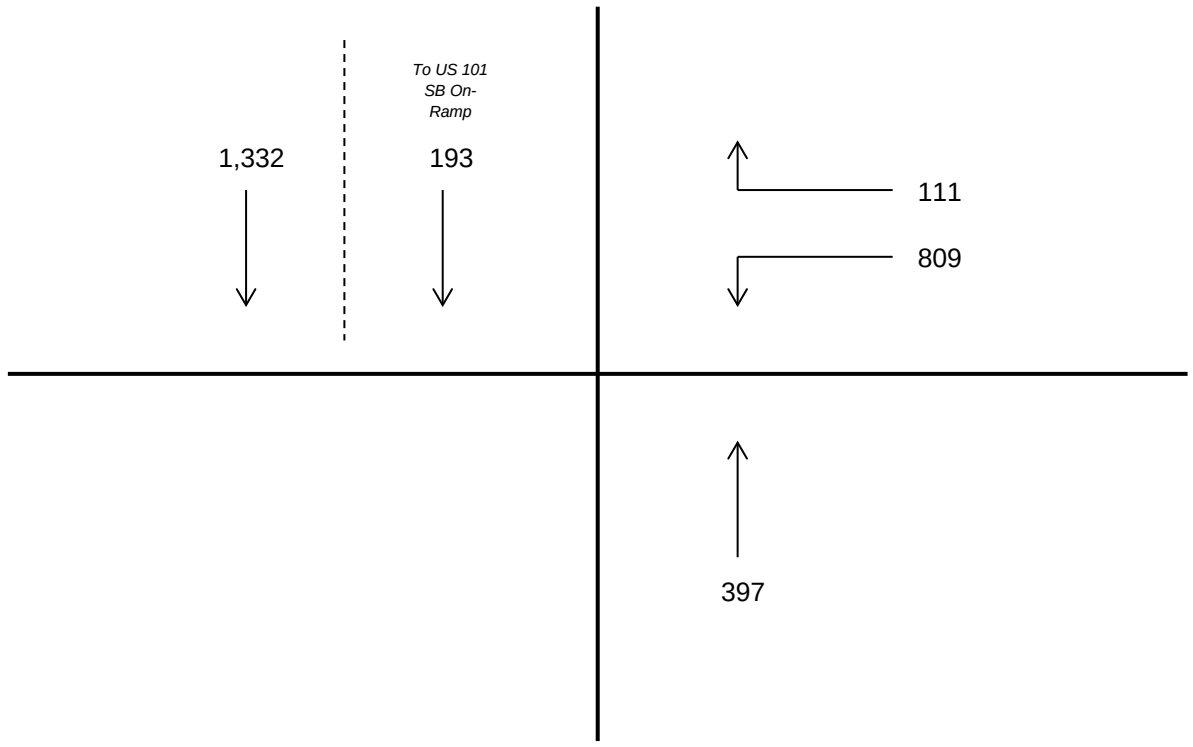
DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

Appendix E

Level of Service Worksheets

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{397}{3} = 132 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{1{,}332}{3} = 444 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{193}{1} = 193$$

Critical Volume = 444

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{809 + 111}{2} = 460 \quad \textit{or}$$

Westbound right-turn

$$\frac{111}{1} = 111$$

Critical Volume = 111

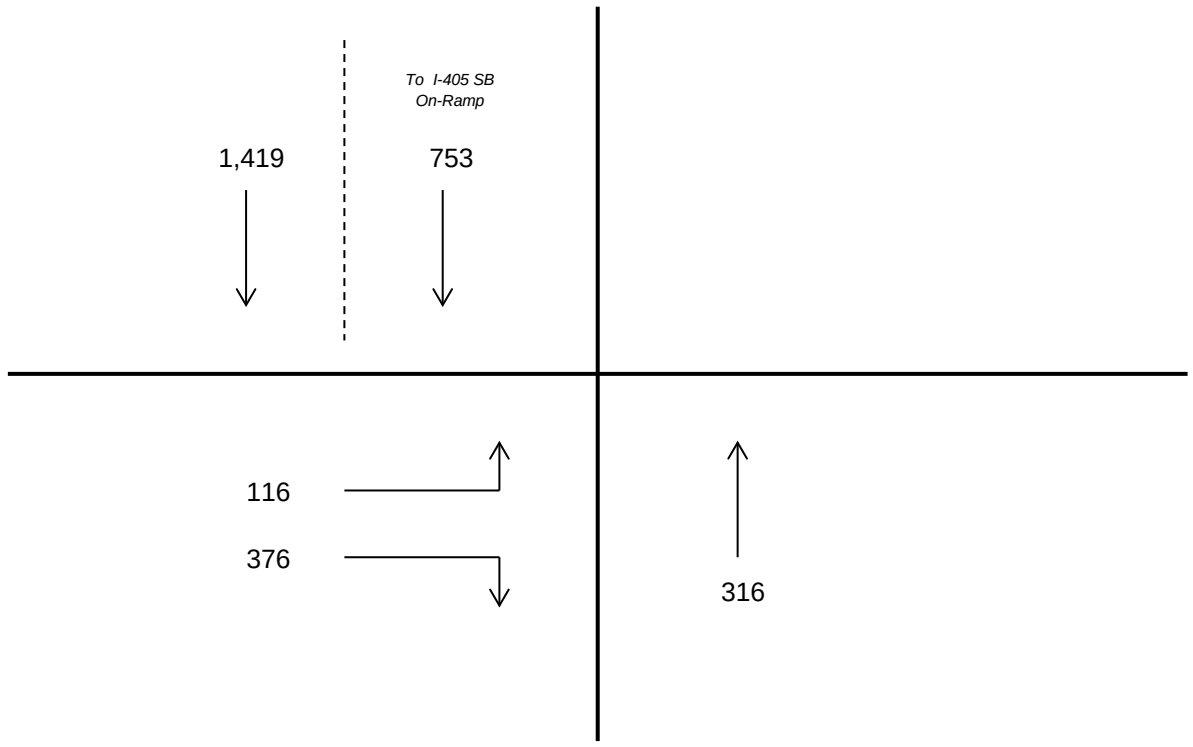
Critical Volume = 444 + 111 = 555

Intersection V/C = $\frac{555}{1{,}100}$ = 0.505 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.405 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{316}{3} = 105 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{1,419}{2} = 710 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{753}{1} = 753$$

Critical Volume = 753

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{376 + 116}{2} = 246 \quad \underline{or}$$

Eastbound left-turn

$$\frac{116}{1} = 116$$

Critical Volume = 246

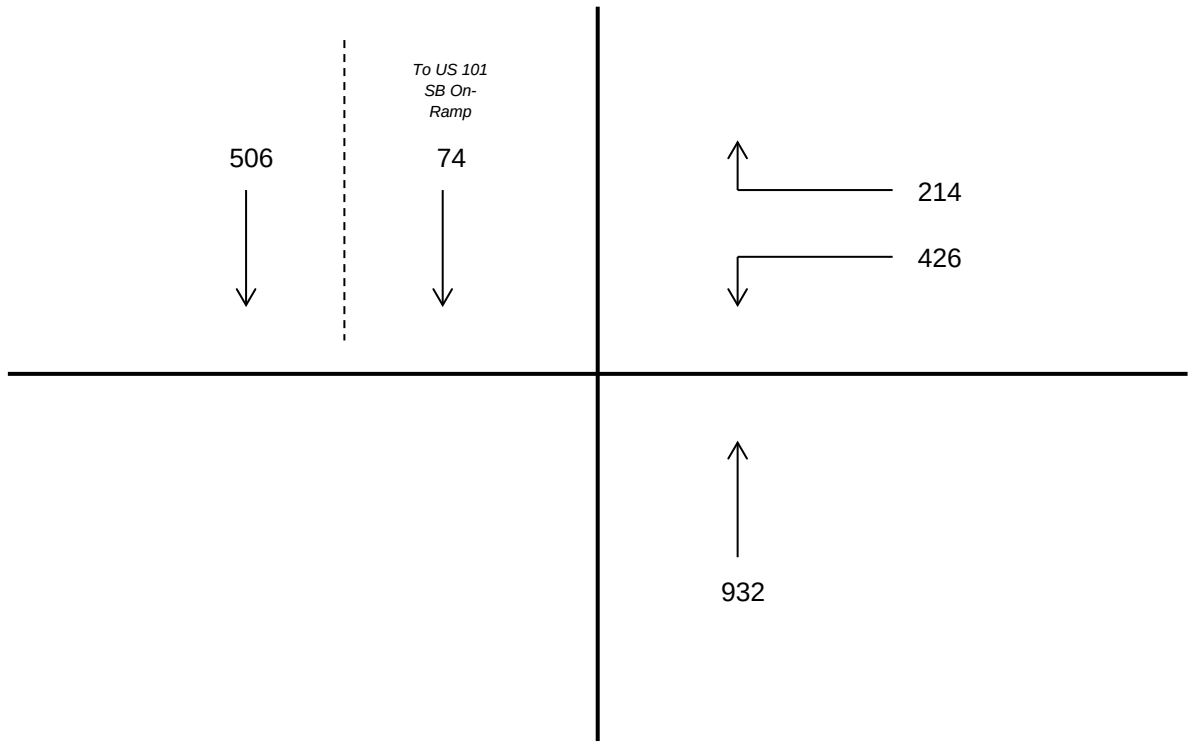
Critical Volume = 753 + 246 = 999

Intersection V/C = $\frac{999}{1,425}$ = 0.701 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.601 **Intersection LOS: B**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing Conditions (Year 2019) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{932}{3} = 311 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{506}{3} = 169 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{74}{1} = 74$$

Critical Volume = 311

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{426 + 214}{2} = 320 \quad \textit{or}$$

Westbound right-turn

$$\frac{214}{1} = 214$$

Critical Volume = 214

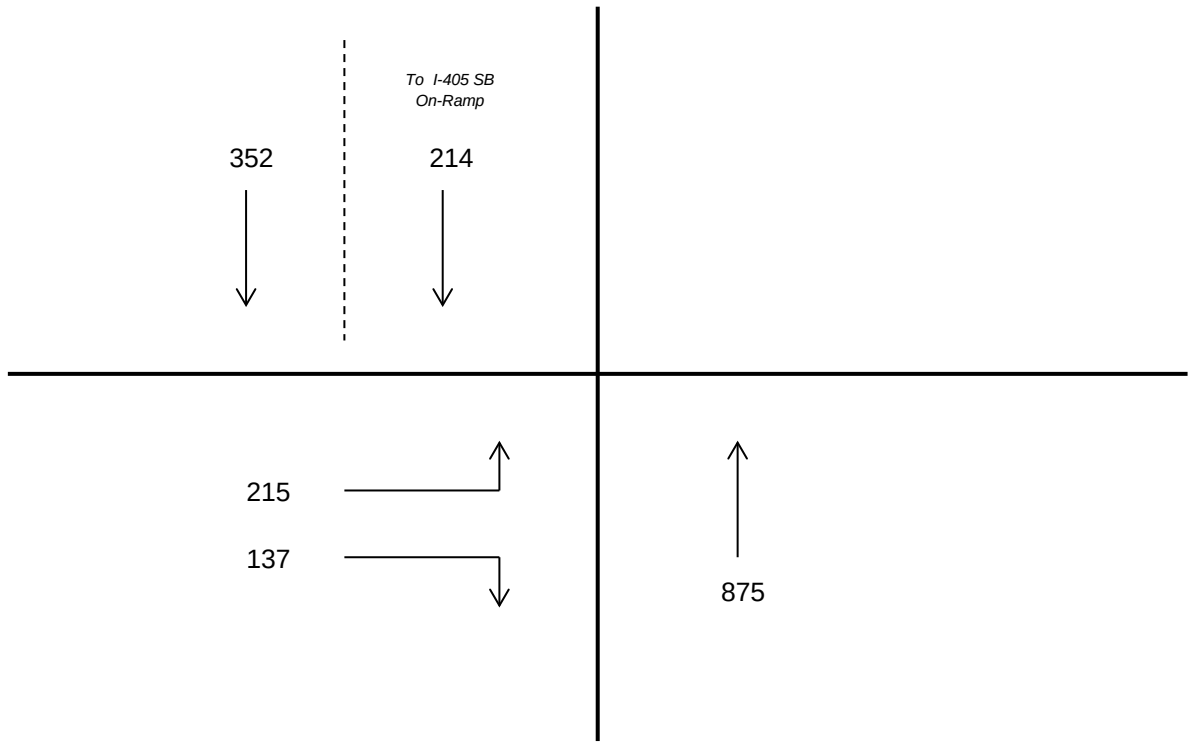
Critical Volume = 311 + 214 = 525

Intersection V/C = $\frac{525}{1{,}500}$ = 0.350 *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.250 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{875}{3} = 292 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{352}{2} = 176 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{214}{1} = 214$$

Critical Volume = 292

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{137 + 215}{2} = 176 \quad \underline{or}$$

Eastbound left-turn

$$\frac{215}{1} = 215$$

Critical Volume = 215

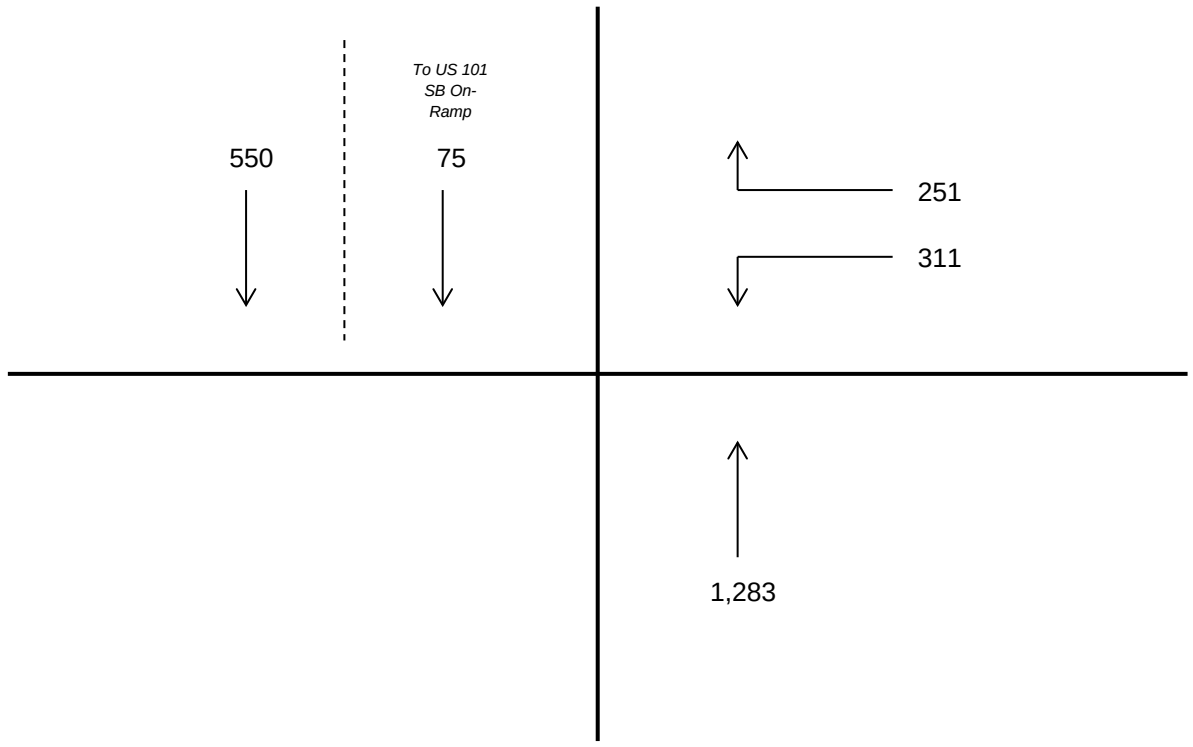
Critical Volume = 292 + 215 = 507

Intersection V/C = $\frac{507}{1{,}425}$ = 0.356 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.256 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}283}{3} = 428 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{550}{3} = 183 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{75}{1} = 75$$

Critical Volume = 428

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{311 + 251}{2} = 281 \quad \textit{or}$$

Westbound right-turn

$$\frac{251}{1} = 251$$

Critical Volume = 251

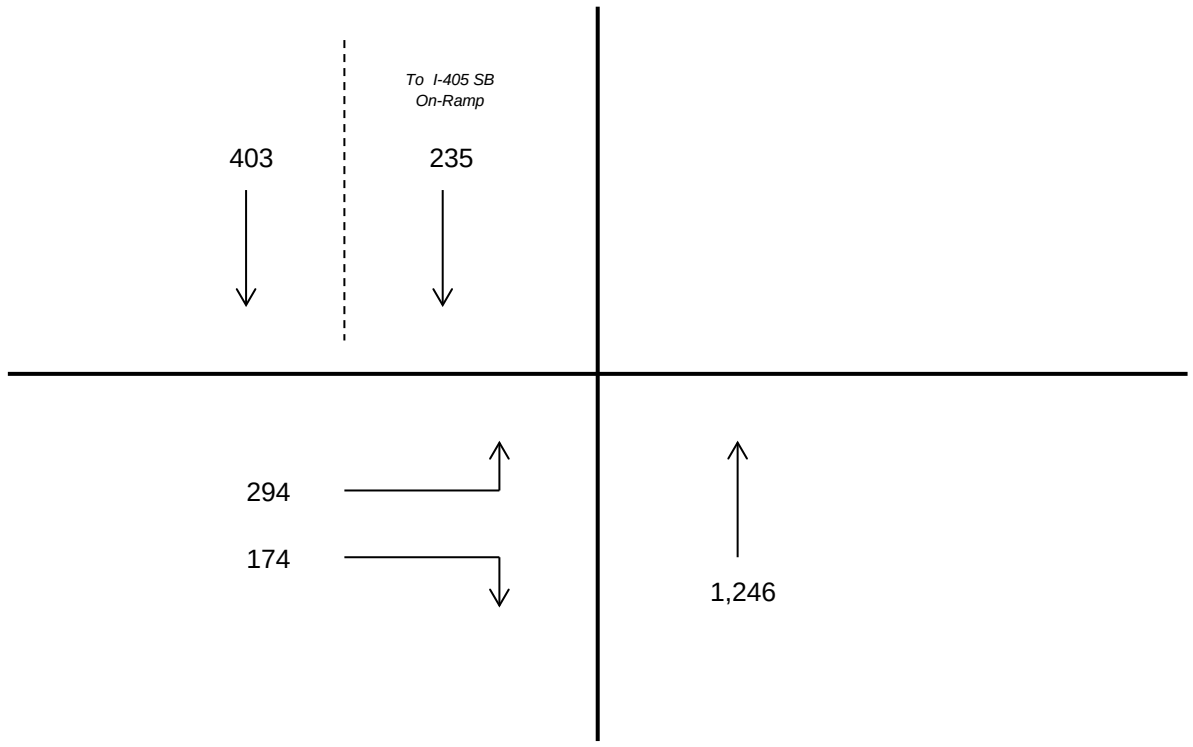
Critical Volume = 428 + 251 = 679

Intersection V/C = $\frac{679}{1{,}100}$ = 0.617 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.517 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing Conditions (Year 2019) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{1,246}{3} = 415 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{403}{2} = 202 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{235}{1} = 235$$

Critical Volume = 415

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{174 + 294}{2} = 234 \quad \underline{or}$$

Eastbound left-turn

$$\frac{294}{1} = 294$$

Critical Volume = 294

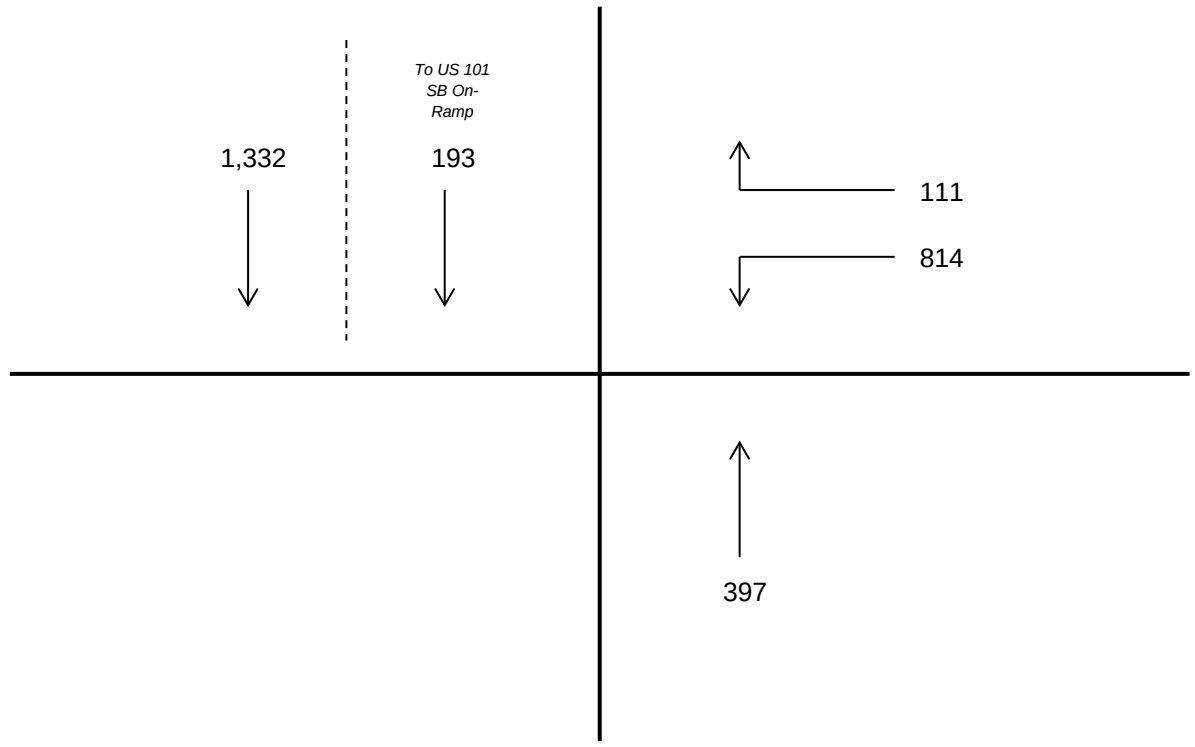
Critical Volume = 415 + 294 = 709

Intersection V/C = $\frac{709}{1,425}$ = 0.498 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.398 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing with Project Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{397}{3} = 132 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{1{,}332}{3} = 444 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{193}{1} = 193$$

Critical Volume = 444

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{814 + 111}{2} = 463 \quad \textit{or}$$

Westbound right-turn

$$\frac{111}{1} = 111$$

Critical Volume = 111

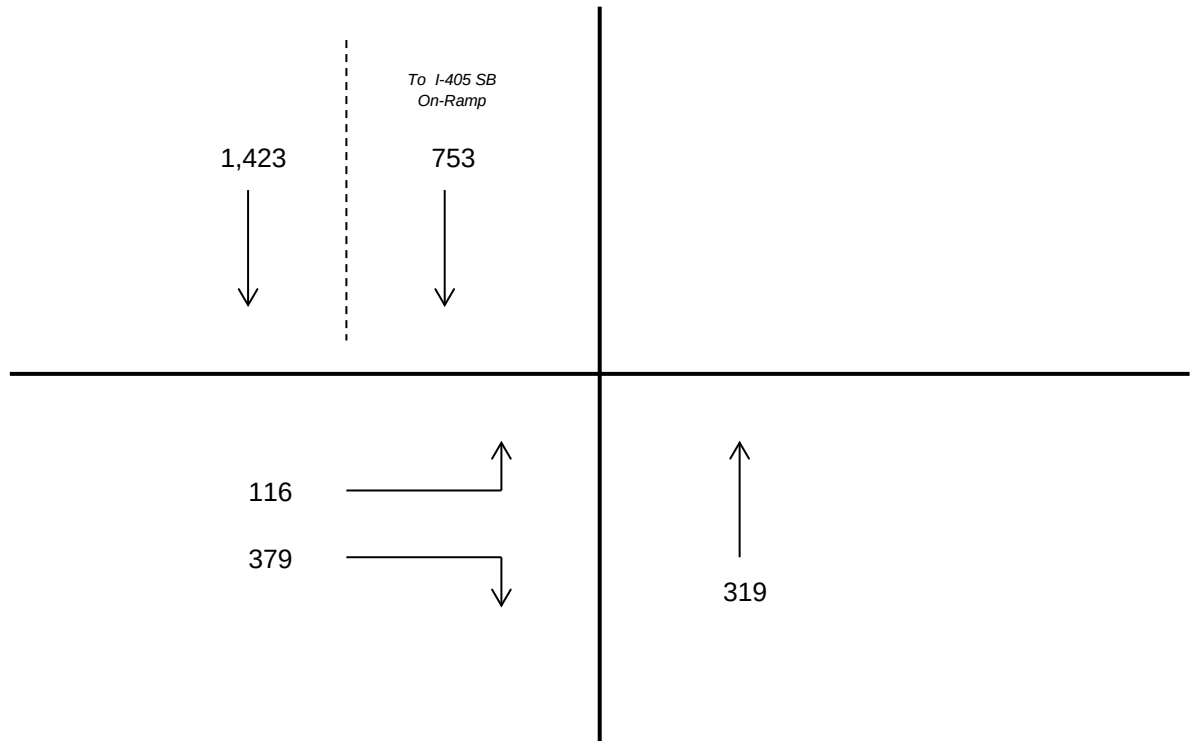
Critical Volume = 444 + 111 = 555

Intersection V/C = $\frac{555}{1{,}100}$ = 0.505 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.405 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing with Project Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{319}{3} = 106 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{1{,}423}{2} = 712 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{753}{1} = 753$$

Critical Volume = 753

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{379 + 116}{2} = 248 \quad \underline{or}$$

Eastbound left-turn

$$\frac{116}{1} = 116$$

Critical Volume = 248

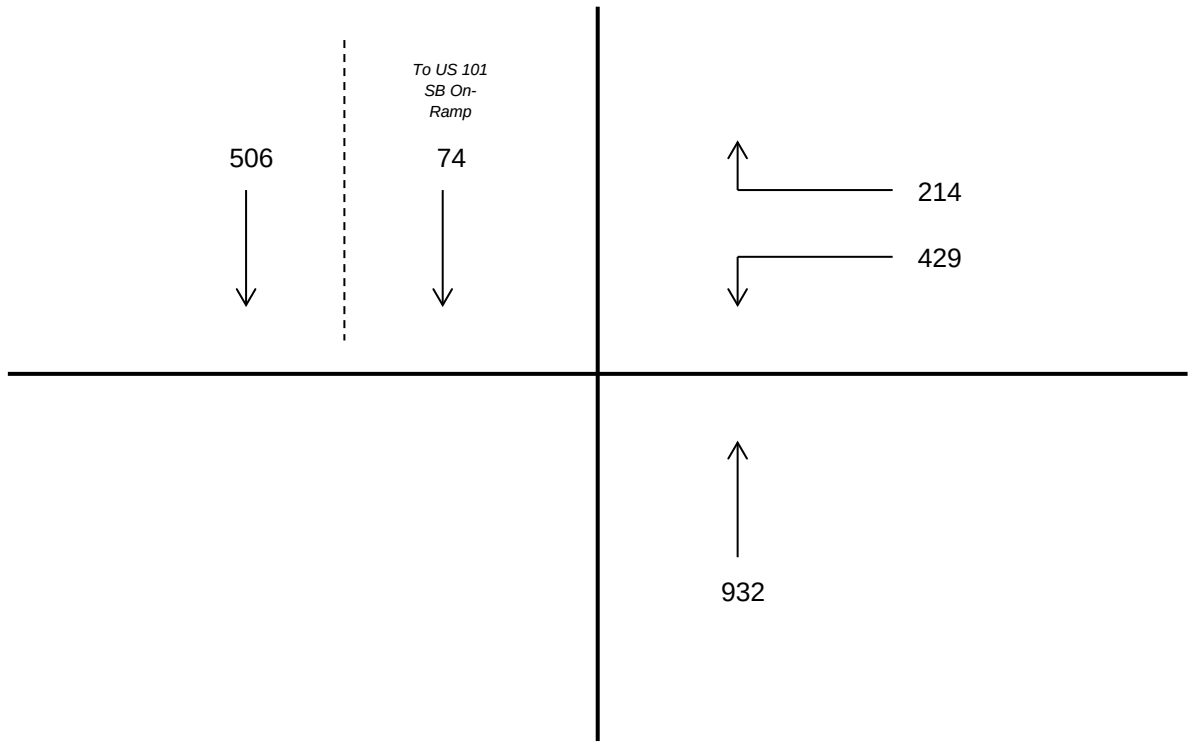
Critical Volume = 753 + 248 = 1,001

Intersection V/C = $\frac{1{,}001}{1{,}425}$ = 0.702 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.602 **Intersection LOS: B**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing with Project Conditions (Year 2019) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{932}{3} = 311 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{506}{3} = 169 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{74}{1} = 74$$

Critical Volume = 311

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{429 + 214}{2} = 322 \quad \textit{or}$$

Westbound right-turn

$$\frac{214}{1} = 214$$

Critical Volume = 214

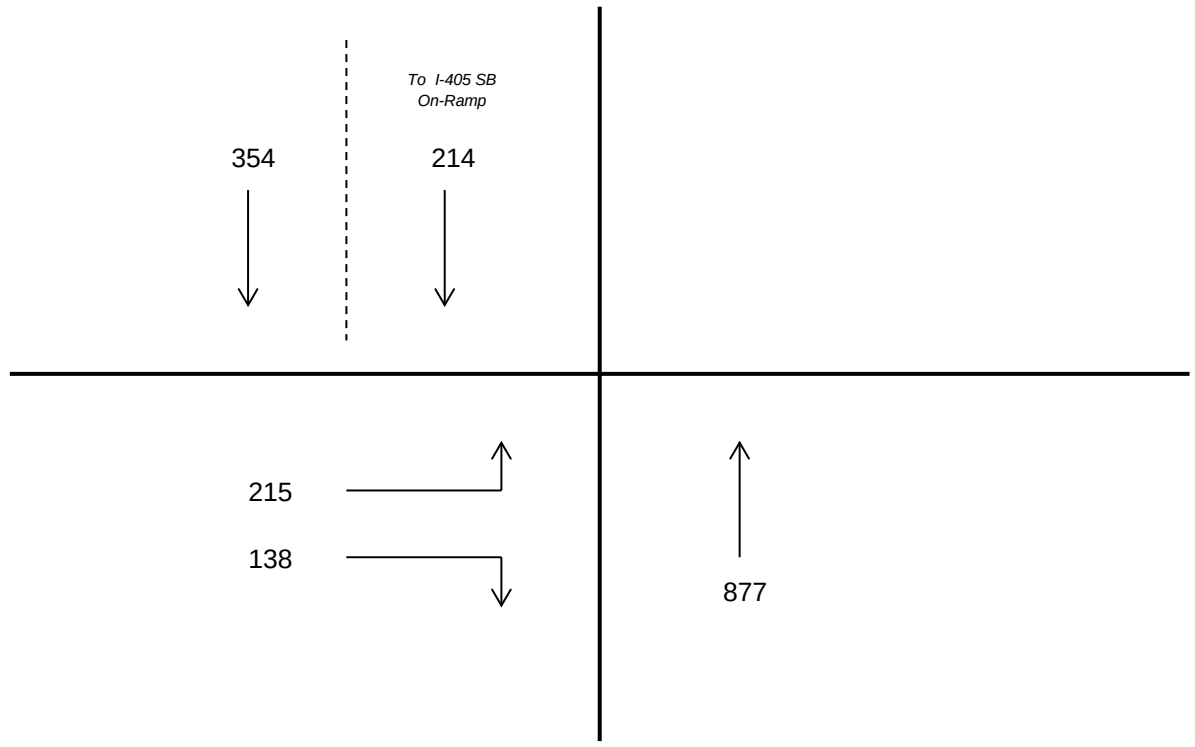
Critical Volume = 311 + 214 = 525

Intersection V/C = $\frac{525}{1{,}500}$ = 0.350 *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.250 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing with Project Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{877}{3} = 292 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{354}{2} = 177 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{214}{1} = 214$$

Critical Volume = 292

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{138 + 215}{2} = 177 \quad \underline{or}$$

Eastbound left-turn

$$\frac{215}{1} = 215$$

Critical Volume = 215

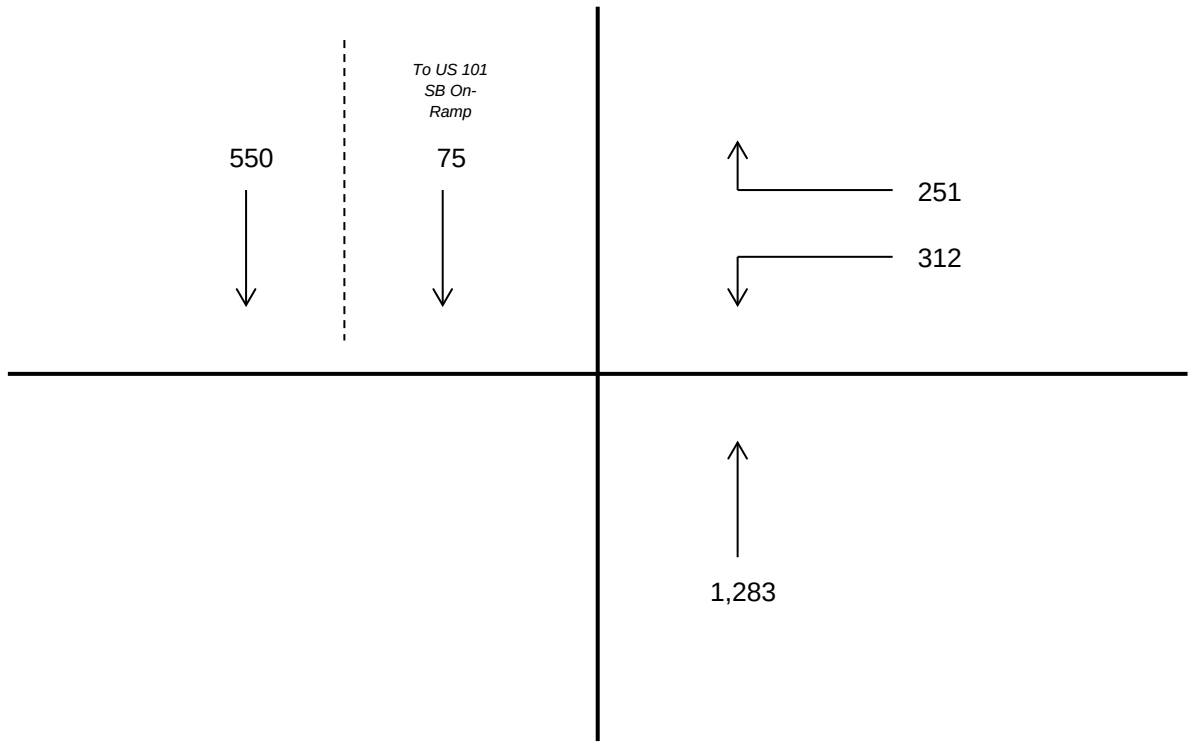
Critical Volume = 292 + 215 = 507

Intersection V/C = $\frac{507}{1{,}425}$ = 0.356 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.256 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Existing with Project Conditions (Year 2019) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}283}{3} = 428 \qquad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{550}{3} = 183 \qquad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{75}{1} = 75$$

Critical Volume = 428

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{312 + 251}{2} = 282 \qquad \textit{or}$$

Westbound right-turn

$$\frac{251}{1} = 251$$

Critical Volume = 251

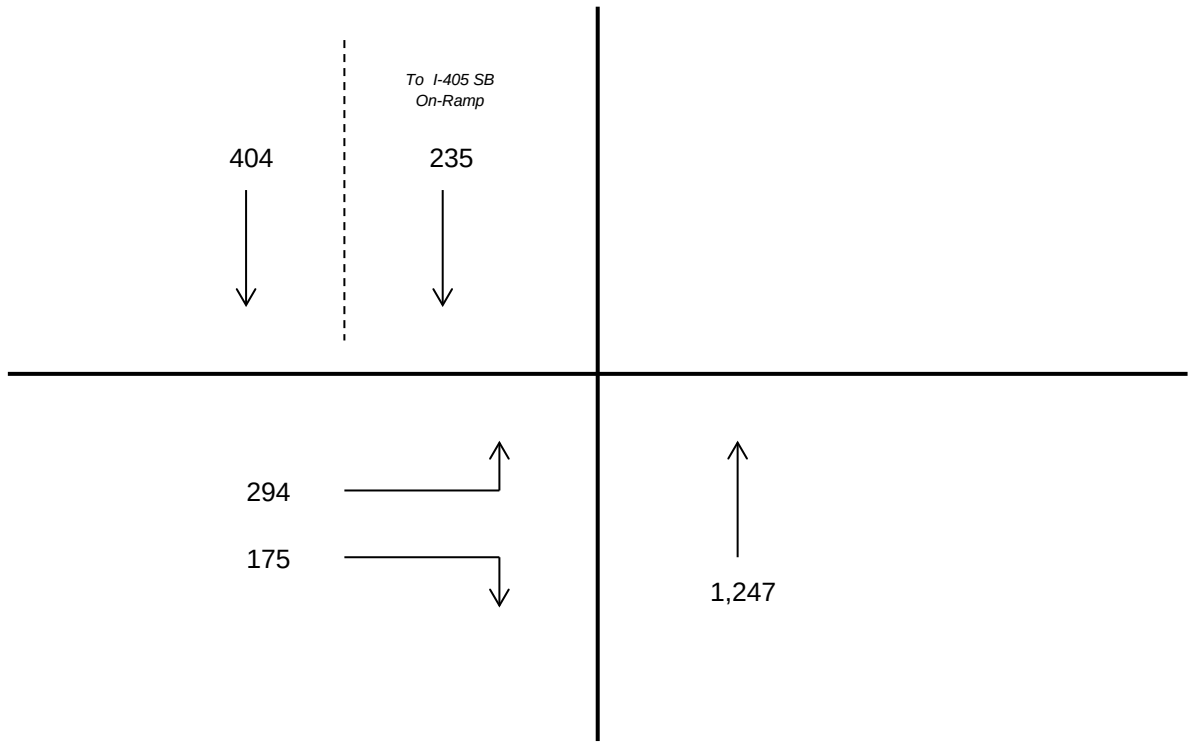
Critical Volume = 428 + 251 = 679

Intersection V/C = $\frac{679}{1{,}100}$ = 0.617 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.517 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Existing with Project Conditions (Year 2019) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{1,247}{3} = 416$ *or*

Southbound through to Sepulveda Boulevard

$\frac{404}{2} = 202$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{235}{1} = 235$

Critical Volume = 416

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{175 + 294}{2} = 235$ *or*

Eastbound left-turn

$\frac{294}{1} = 294$

Critical Volume = 294

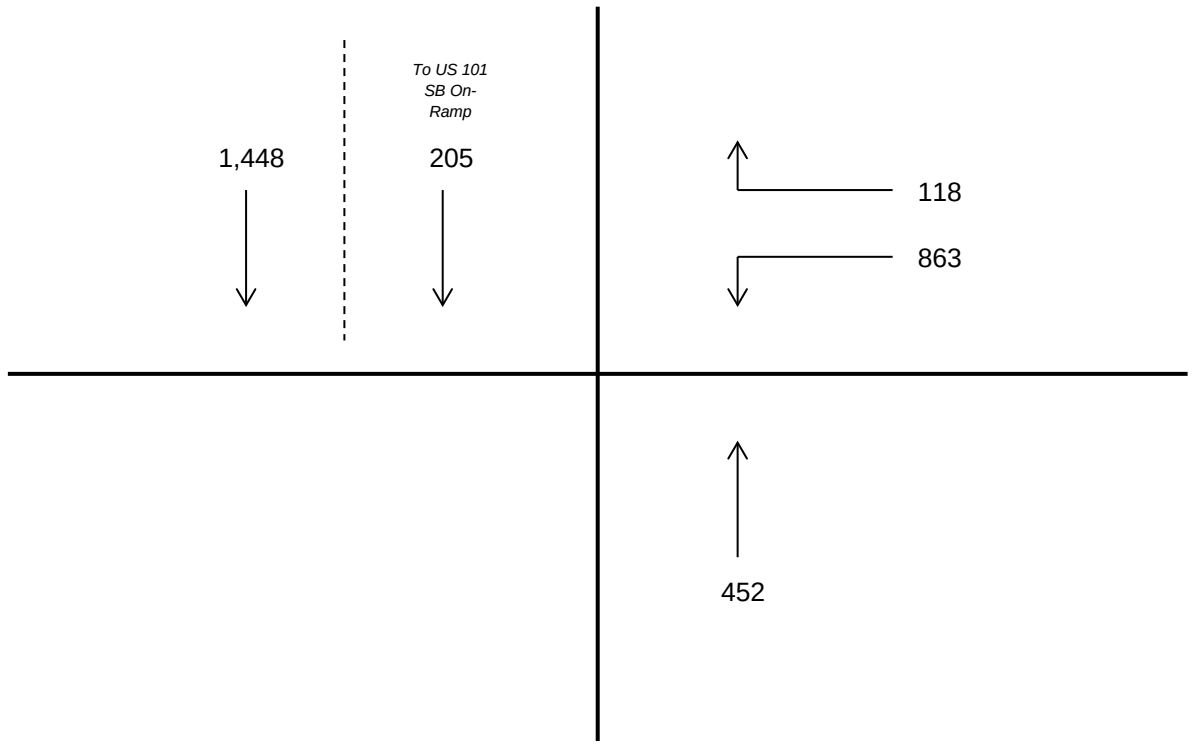
Critical Volume = 416 + 294 = 710

Intersection V/C = $\frac{710}{1,425}$ = 0.498 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.398 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{452}{3} = 151 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{1{,}448}{3} = 483 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{205}{1} = 205$$

Critical Volume = 483

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{863 + 118}{2} = 491 \quad \textit{or}$$

Westbound right-turn

$$\frac{118}{1} = 118$$

Critical Volume = 118

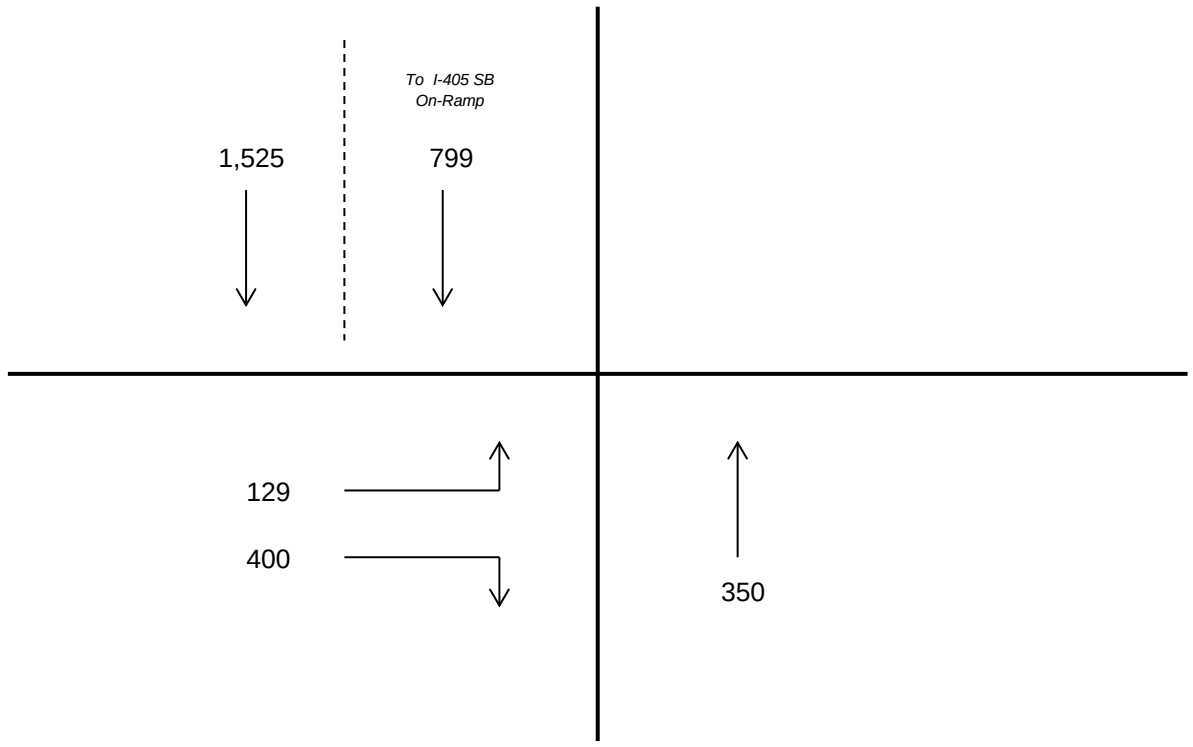
Critical Volume = 483 + 118 = 601

Intersection V/C = $\frac{601}{1{,}100}$ = 0.546 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.446 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{350}{3} = 117 \quad \textit{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{1{,}525}{2} = 763 \quad \textit{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{799}{1} = 799$$

Critical Volume = 799

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{400 + 129}{2} = 265 \quad \textit{or}$$

Eastbound left-turn

$$\frac{129}{1} = 129$$

Critical Volume = 265

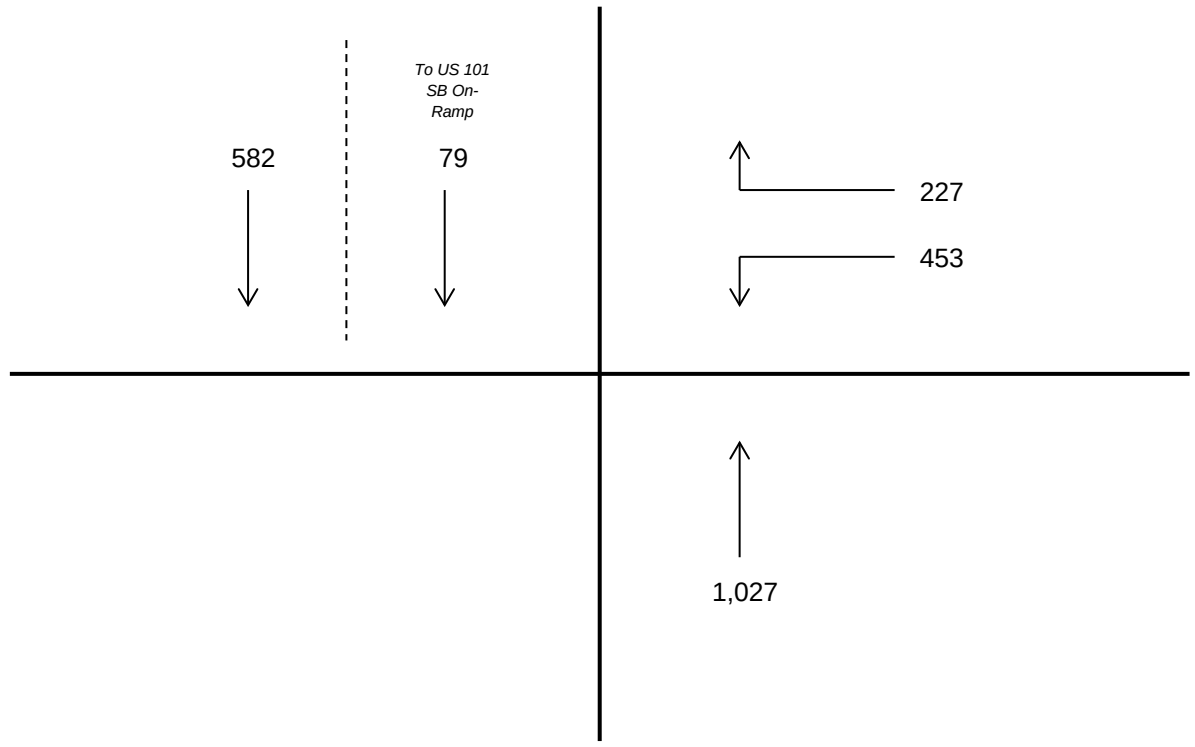
Critical Volume = 799 + 265 = 1,064

Intersection V/C = $\frac{1{,}064}{1{,}425}$ = 0.747 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.647 **Intersection LOS: B**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}027}{3} = 342 \qquad \underline{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{582}{3} = 194 \qquad \underline{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{79}{1} = 79$$

Critical Volume = 342

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{453 + 227}{2} = 340 \qquad \underline{or}$$

Westbound right-turn

$$\frac{227}{1} = 227$$

Critical Volume = 227

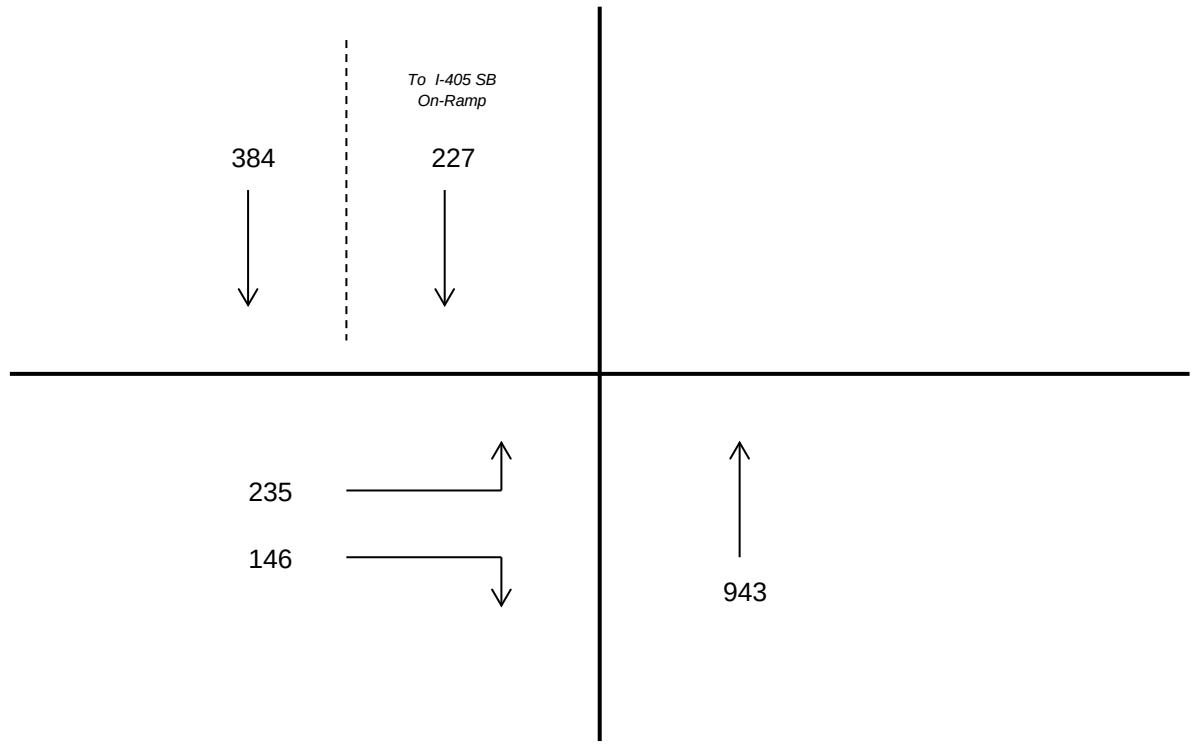
Critical Volume = 342 + 227 = 569

Intersection V/C = $\frac{569}{1{,}500}$ = 0.379 *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.279 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{943}{3} = 314 \quad \underline{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{384}{2} = 192 \quad \underline{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{227}{1} = 227$$

Critical Volume = 314

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{146 + 235}{2} = 191 \quad \underline{or}$$

Eastbound left-turn

$$\frac{235}{1} = 235$$

Critical Volume = 235

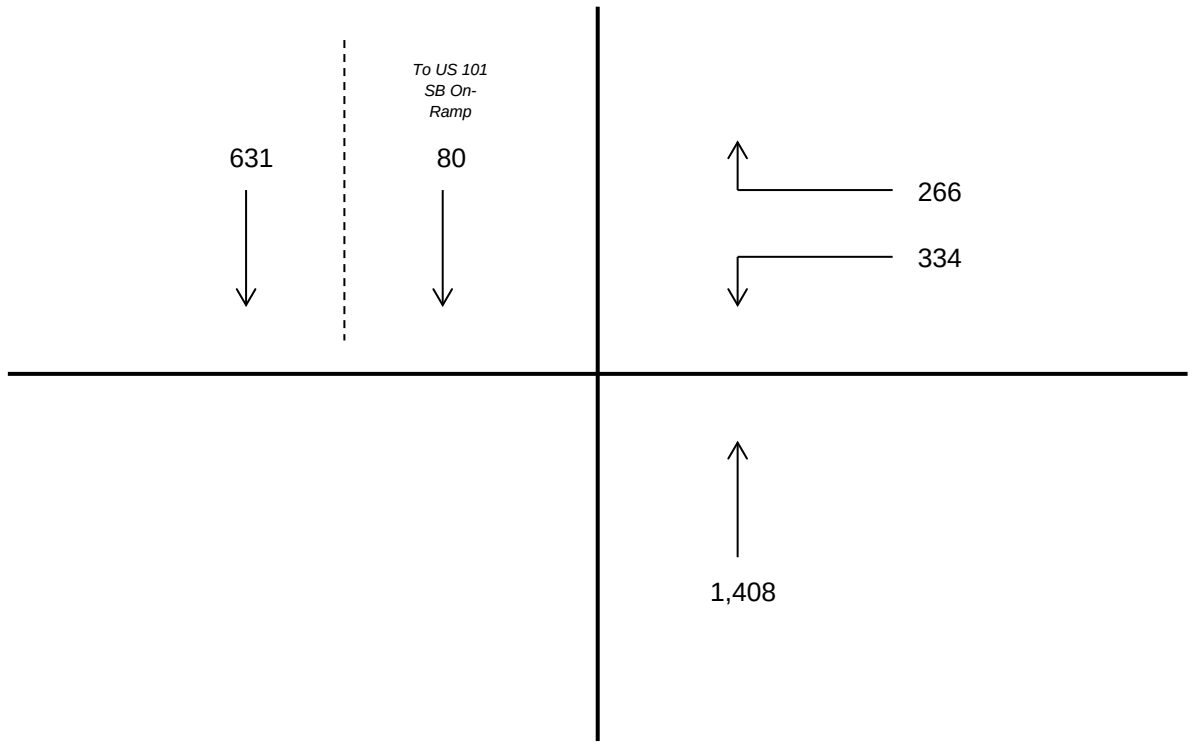
Critical Volume = 314 + 235 = 549

Intersection V/C = $\frac{549}{1{,}425}$ = 0.385 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.285 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}408}{3} = 469 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{631}{3} = 210 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{80}{1} = 80$$

Critical Volume = 469

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{334 + 266}{2} = 300 \quad \textit{or}$$

Westbound right-turn

$$\frac{266}{1} = 266$$

Critical Volume = 266

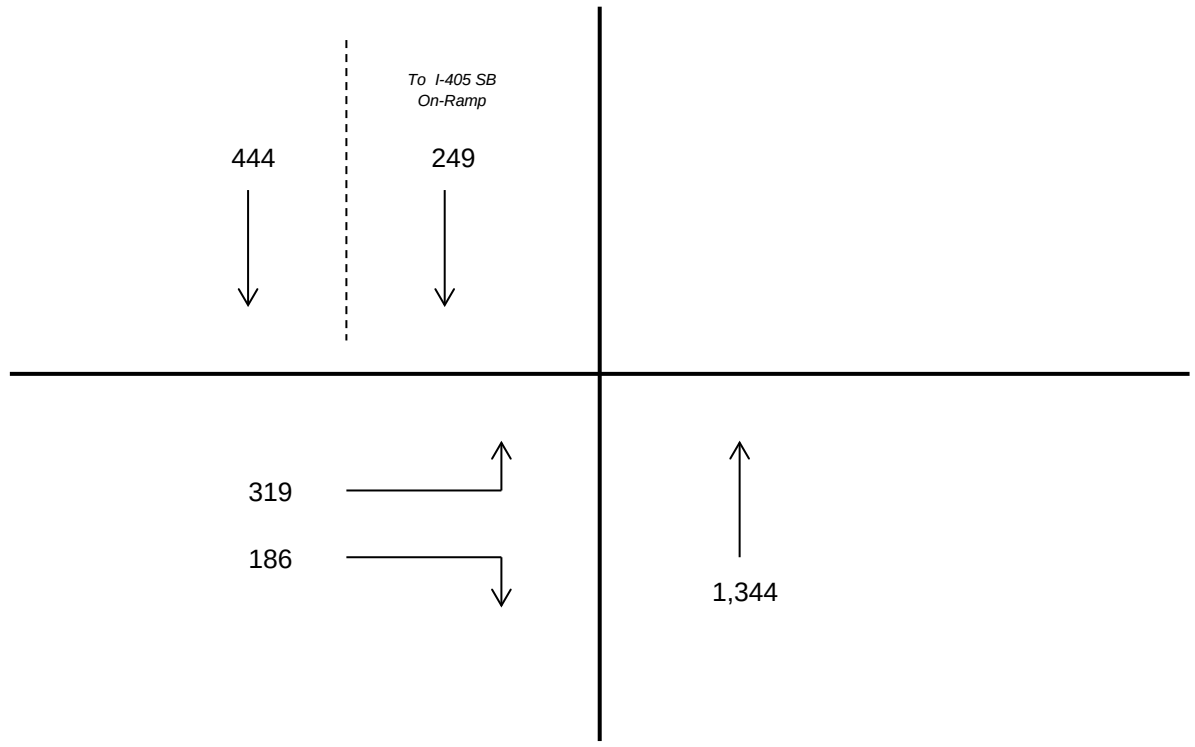
Critical Volume = 469 + 266 = 735

Intersection V/C = $\frac{735}{1{,}100}$ = 0.668 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.568 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{1{,}344}{3} = 448 \quad \textit{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{444}{2} = 222 \quad \textit{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{249}{1} = 249$$

Critical Volume = 448

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{186 + 319}{2} = 253 \quad \textit{or}$$

Eastbound left-turn

$$\frac{319}{1} = 319$$

Critical Volume = 319

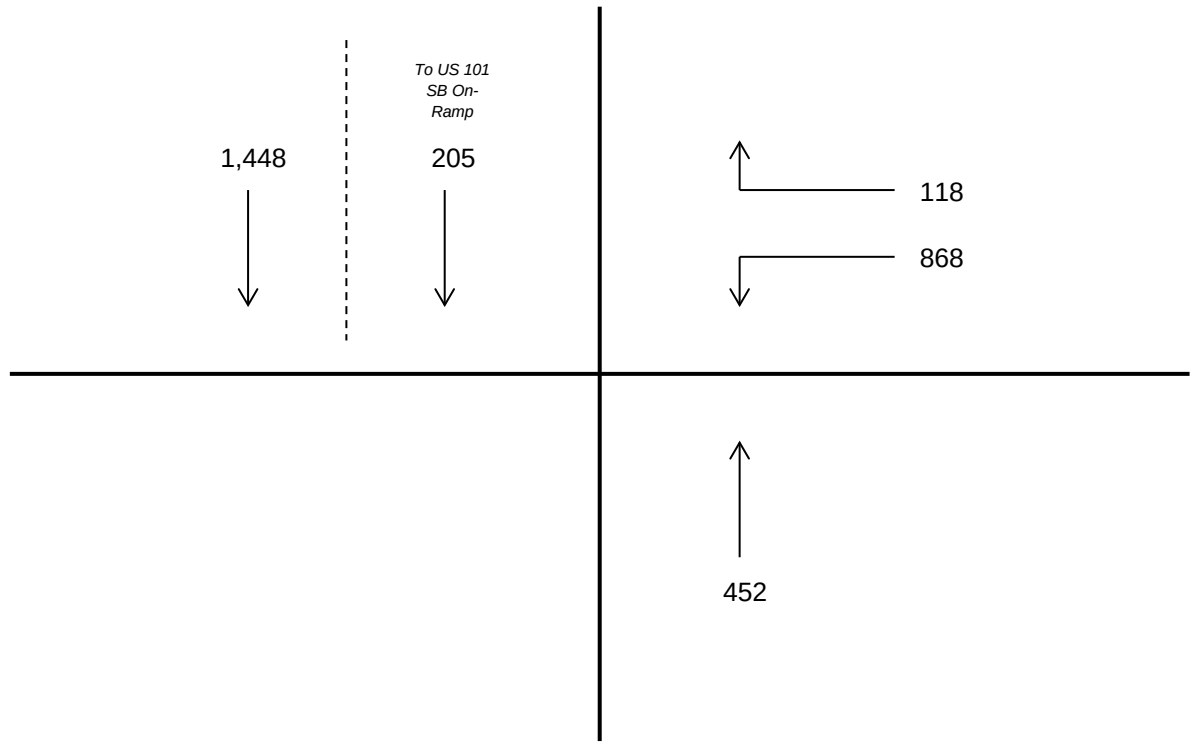
Critical Volume = 448 + 319 = 767

Intersection V/C = $\frac{767}{1{,}425}$ = 0.538 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.438 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{452}{3} = 151 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{1{,}448}{3} = 483 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{205}{1} = 205$$

Critical Volume = 483

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{868 + 118}{2} = 493 \quad \textit{or}$$

Westbound right-turn

$$\frac{118}{1} = 118$$

Critical Volume = 118

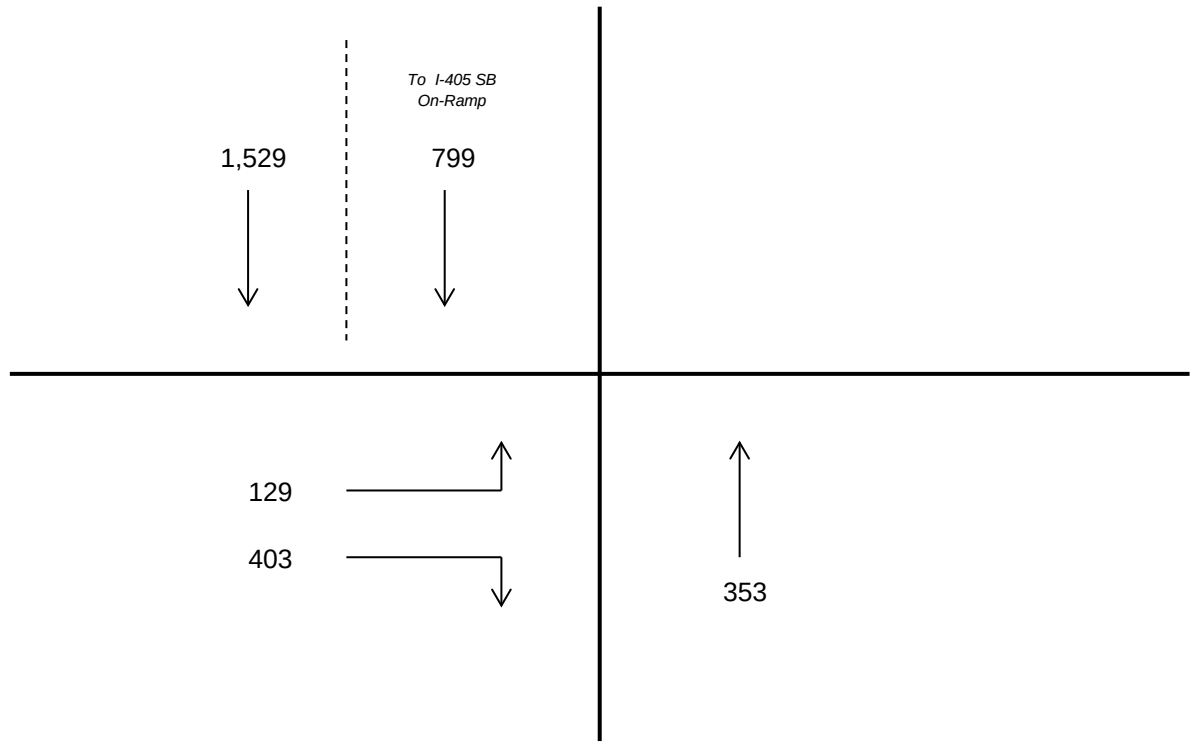
Critical Volume = 483 + 118 = 601

Intersection V/C = $\frac{601}{1{,}100}$ = 0.546 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.446 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{353}{3} = 118 \quad \textit{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{1,529}{2} = 765 \quad \textit{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{799}{1} = 799$$

Critical Volume = 799

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{403 + 129}{2} = 266 \quad \textit{or}$$

Eastbound left-turn

$$\frac{129}{1} = 129$$

Critical Volume = 266

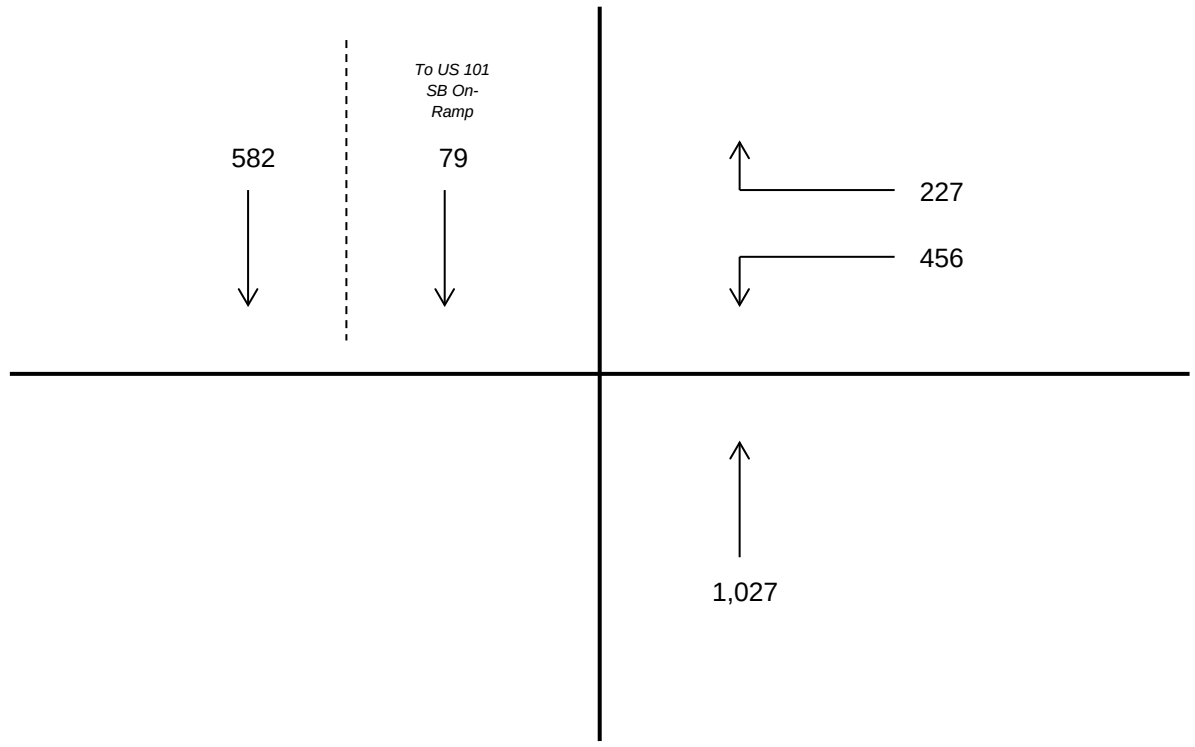
Critical Volume = 799 + 266 = 1,065

Intersection V/C = $\frac{1,065}{1,425}$ = 0.747 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.647 **Intersection LOS: B**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}027}{3} = 342 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{582}{3} = 194 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{79}{1} = 79$$

Critical Volume = 342

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{456 + 227}{2} = 342 \quad \textit{or}$$

Westbound right-turn

$$\frac{227}{1} = 227$$

Critical Volume = 227

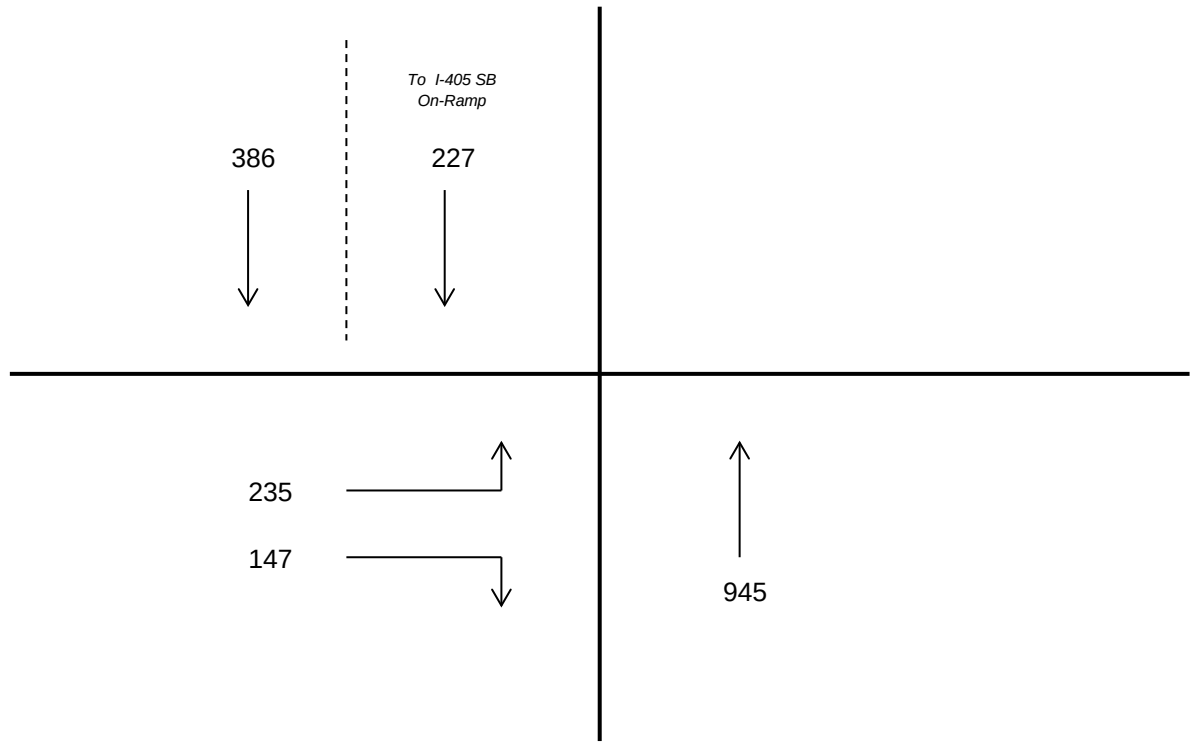
Critical Volume = 342 + 227 = 569

Intersection V/C = $\frac{569}{1{,}500}$ = 0.379 *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.279 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:	3	northbound through lanes
	2	southbound through lanes to Sepulveda Bouelvard
	1	southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{945}{3} = 315 \quad \textit{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{386}{2} = 193 \quad \textit{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{227}{1} = 227$$

Critical Volume = 315

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:	1	eastbound shared left-turn/right-turn lane
	1	eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{147 + 235}{2} = 191 \quad \textit{or}$$

Eastbound left-turn

$$\frac{235}{1} = 235$$

Critical Volume = 235

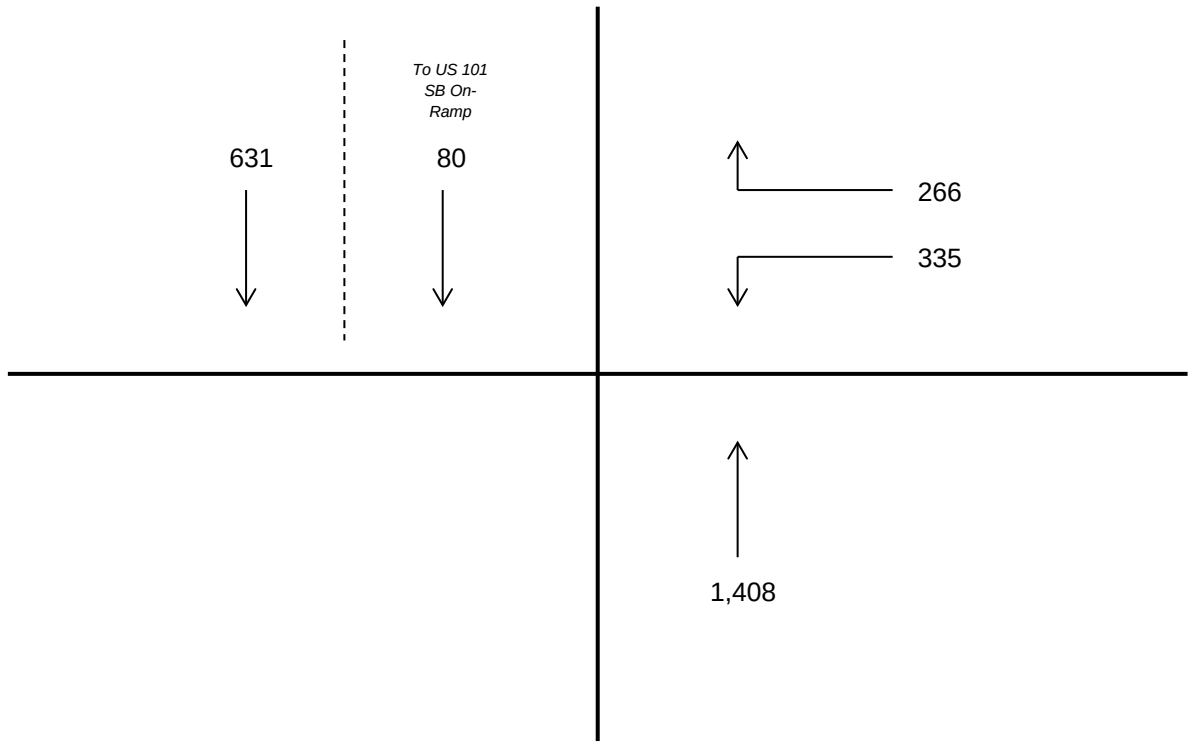
Critical Volume = 315 + 235 = 550

Intersection V/C = $\frac{550}{1{,}425}$ = 0.386 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.286 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:	3	northbound through lanes
	3	southbound through lanes to Hayvenhurst Avenue
	1	southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}408}{3} = 469 \quad \textit{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{631}{3} = 210 \quad \textit{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{80}{1} = 80$$

Critical Volume = 469

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:	1	westbound left-turn lane
	1	westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{335 + 266}{2} = 301 \quad \textit{or}$$

Westbound right-turn

$$\frac{266}{1} = 266$$

Critical Volume = 266

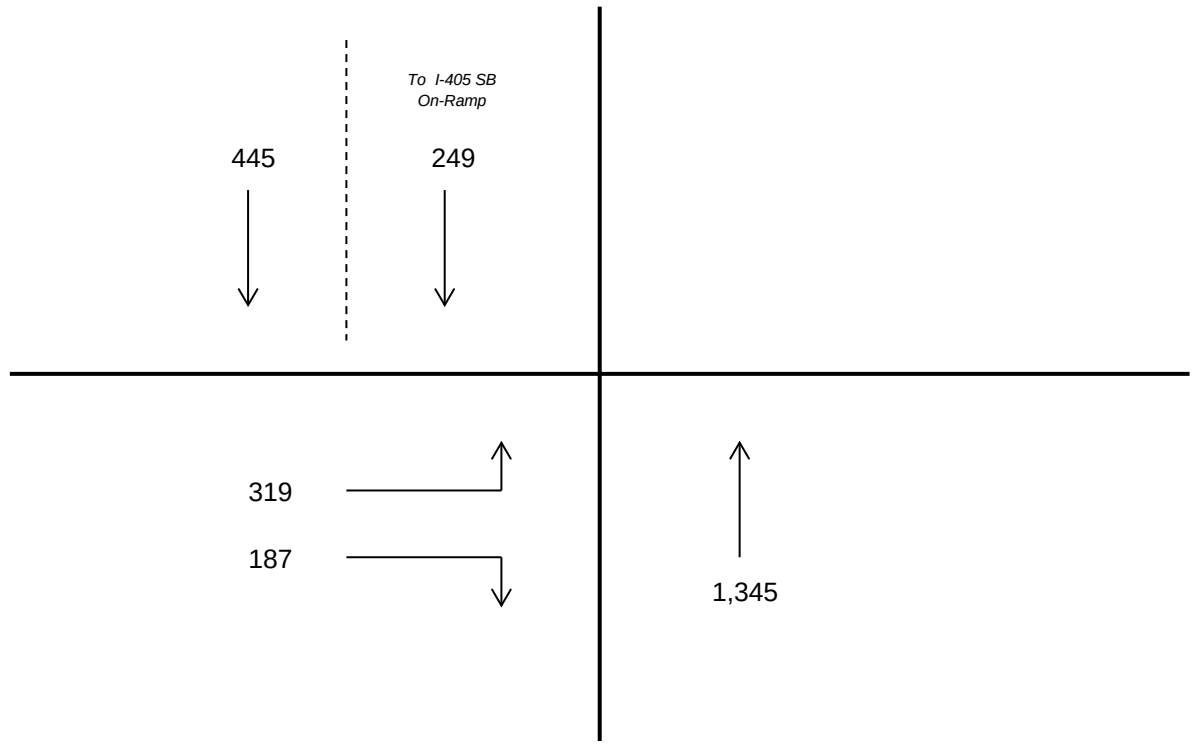
Critical Volume = 469 + 266 = 735

Intersection V/C = $\frac{735}{1{,}100}$ = 0.668 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.568 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$$\frac{1{,}345}{3} = 448 \quad \textit{or}$$

Southbound through to Sepulveda Boulevard

$$\frac{445}{2} = 223 \quad \textit{or}$$

Southbound through to I-405 Southbound On-Ramp

$$\frac{249}{1} = 249$$

Critical Volume = 448

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$$\frac{187 + 319}{2} = 253 \quad \textit{or}$$

Eastbound left-turn

$$\frac{319}{1} = 319$$

Critical Volume = 319

Critical Volume = 448 + 319 = 767

Intersection V/C = $\frac{767}{1{,}425}$ = 0.538 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.438 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			0			0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2 SB--		0	NB-- 2 SB--		0	NB-- 2 SB--			0	NB-- 2 SB--			0	NB-- 2 SB--			0
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			1200			1200				1200				1200				1200
NORTHBOUND																		
Left	28	1	**28**	0	28	**28**	0	28	1	**28**	0	28	1	**28**	0	28	1	**28**
Left-Through		0							0				0				0	
Through	270	2	135	0	270	135	36	306	2	153	0	306	2	153	0	306	2	153
Through-Right		1							1				1				1	
Right	154	0	154	3	157	157	1	155	0	155	3	158	0	158	0	158	0	158
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	193	1	193	0	193	193	0	193	1	193	0	193	1	193	0	193	1	193
Left-Through		0							0				0				0	
Through	1679	2	**714**	5	1684	**716**	38	1718	2	**727**	5	1723	2	**729**	0	1723	2	**729**
Through-Right		1							1				1				1	
Right	463	0	463	0	463	463	0	463	0	463	0	463	0	463	0	463	0	463
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	140	0	140	0	140	140	0	140	0	140	0	140	0	140	0	140	0	140
Left-Through		1							1				1				1	
Through	355	0	**344**	0	355	**344**	0	355	0	**344**	0	355	0	**344**	0	355	0	**344**
Through-Right		1							1				1				1	
Right	193	0	344	0	193	344	0	193	0	344	0	193	0	344	0	193	0	344
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES *North-South:*			742			744				755				757				757
East-West:			344			344				344				344				344
SUM:			1086			1088				1099				1101				1101
VOLUME/CAPACITY *(V/C)* RATIO:			0.905			0.907				0.916				0.918				0.918
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.805**			**0.807**				**0.816**				**0.818**				**0.818**
LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	107	1	107	4	111	111	7	114	1	114	4	118	1	118	0	118	1	118
	Left-Through		0							0				0				0	
	Through	187	1	**118**	3	190	**120**	1	188	1	**135**	3	191	1	**136**	0	191	1	**136**
	Through-Right		1							1				1				1	
	Right	49	0	49	0	49	49	32	81	0	81	0	81	0	81	0	81	0	81
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	930	2	**512**	0	930	**512**	32	963	2	**530**	0	963	2	**530**	0	963	2	**530**
	Left-Through		0							0				0				0	
	Through	453	1	453	5	458	458	2	455	1	455	5	460	1	460	0	460	1	460
	Through-Right		0							0				0				0	
	Right	108	1	0	0	108	0	4	112	1	0	0	112	1	0	0	112	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	123	1	123	0	123	123	12	135	1	135	0	135	1	135	0	135	1	135
	Left-Through		0							0				0				0	
	Through	1787	2	**630**	0	1787	**633**	47	1835	2	**653**	0	1835	2	**655**	0	1835	2	**655**
	Through-Right		1							1				1				1	
	Right	103	0	103	8	111	111	20	123	0	123	8	131	0	131	0	131	0	131
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	37	1	**37**	0	37	**37**	24	61	1	**61**	0	61	1	**61**	0	61	1	**61**
	Left-Through		0							0				0				0	
	Through	458	3	153	0	458	153	41	499	3	166	0	499	3	166	0	499	3	166
	Through-Right		0							0				0				0	
	Right	104	2	0	0	104	0	24	128	2	0	0	128	2	0	0	128	2	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	North-South:	630	North-South:	632	North-South:	665	North-South:	666	North-South:	666
	East-West:	667	East-West:	670	East-West:	714	East-West:	716	East-West:	716
	SUM:	1297	SUM:	1302	SUM:	1379	SUM:	1382	SUM:	1382
VOLUME/CAPACITY (V/C) RATIO:		0.943		0.947		1.003		1.005		1.005
V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.843**		**0.847**		**0.903**		**0.905**		**0.905**
LEVEL OF SERVICE (LOS):		**D**		**D**		**E**		**E**		**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	158	1	**158**	0	158	**158**	0	158	1	**158**	0	158	1	**158**	0	158	1	**158**
	Left-Through		0							0				0				0	
	Through	202	1	109	3	205	110	15	217	1	116	3	220	1	118	0	220	1	118
	Through-Right		1							1				1				1	
	Right	15	0	15	0	15	15	0	15	0	15	0	15	0	15	0	15	0	15
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	16	1	16	0	16	16	0	16	1	16	0	16	1	16	0	16	1	16
	Left-Through		0							0				0				0	
	Through	1371	2	**457**	4	1375	**458**	18	1390	2	**463**	4	1394	2	**465**	0	1394	2	**465**
	Through-Right		1							1				1				1	
	Right	174	1	0	0	174	0	1	175	1	0	0	175	1	0	0	175	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	560	1	**352**	0	560	**352**	2	562	1	**353**	0	562	1	**353**	0	562	1	**353**
	Left-Through		0							0				0				0	
	Through	51	0	352	0	51	352	0	51	0	353	0	51	0	353	0	51	0	353
	Through-Right		0							0				0				0	
	Right	92	0	0	0	92	0	0	92	0	0	0	92	0	0	0	92	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	112	1	112	0	112	112	0	112	1	112	0	112	1	112	0	112	1	112
	Left-Through		0							0				0				0	
	Through	170	0	**183**	0	170	**183**	0	170	0	**183**	0	170	0	**183**	0	170	0	**183**
	Through-Right		1							1				1				1	
	Right	13	0	0	0	13	0	0	13	0	0	0	13	0	0	0	13	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		615	*North-South:*		616	*North-South:*			621	*North-South:*			623	*North-South:*			623
		East-West:		535	*East-West:*		535	*East-West:*			536	*East-West:*			536	*East-West:*			536
		SUM:		1150	*SUM:*		1151	*SUM:*			1157	*SUM:*			1159	*SUM:*			1159
VOLUME/CAPACITY *(V/C)* RATIO:				0.836			0.837				0.841				0.843				0.843
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.736**			**0.737**				**0.741**				**0.743**				**0.743**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	∆*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				0				0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2				2
Override Capacity				1100				1100				1100				1100				1100				1100

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	286	1	228	3	289	230	15	301	1	236	3	304	1	237	0	304	1	237
Through-Right		1							1				1				1	
Right	170	0	170	0	170	170	0	170	0	170	0	170	0	170	0	170	0	170
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	72	1	72	0	72	72	0	72	1	72	0	72	1	72	0	72	1	72
Left-Through		0							0				0				0	
Through	1716	3	**572**	4	1720	**573**	18	1735	3	**578**	4	1739	3	**580**	0	1739	3	**580**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	9	0	0	0	9	0	0	9	0	0	0	9	0	0	0	9	0	0
Left-Through		0							0				0				0	
Through	5	0	**0**	0	5	**0**	0	5	0	**0**	0	5	0	**0**	0	5	0	**0**
Through-Right		0							0				0				0	
Right	9	0	0	0	9	0	0	9	0	0	0	9	0	0	0	9	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	644	1	**322**	0	644	**322**	0	644	1	**322**	0	644	1	**322**	0	644	1	**322**
Left-Through		1							1				1				1	
Through	0	0	322	0	0	322	0	0	0	322	0	0	0	322	0	0	0	322
Through-Right		0							0				0				0	
Right	73	1	0	0	73	0	0	73	1	0	0	73	1	0	0	73	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		572	*North-South:*		573	*North-South:*			578	*North-South:*			580	*North-South:*			580
	East-West:		322	*East-West:*		322	*East-West:*			322	*East-West:*			322	*East-West:*			322
	SUM:		894	*SUM:*		895	*SUM:*			900	*SUM:*			902	*SUM:*			902
VOLUME/CAPACITY *(V/C)* RATIO:			0.813			0.814				0.818				0.820				0.820
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.713**			**0.714**				**0.718**				**0.720**				**0.720**
LEVEL OF SERVICE (LOS):			**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	∆*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	169	2	**93**	0	169	**93**	10	179	2	**98**	0	179	2	**98**	0	179	2	**98**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	38	1	8	0	38	8	2	40	1	8	0	40	1	8	0	40	1	8
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	61	1	61	0	61	61	4	65	1	65	0	65	1	65	0	65	1	65
Left-Through		0							0				0				0	
Through	1408	2	**704**	34	1442	**721**	1	1410	2	**705**	34	1444	2	**722**	0	1444	2	**722**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	473	1	473	38	511	511	0	473	1	473	38	511	1	511	0	511	1	511
Through-Right		0							0				0				0	
Right	201	1	108	0	201	108	11	212	1	114	0	212	1	114	0	212	1	114
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	93		*North-South:*	93		*North-South:*		98		*North-South:*		98		*North-South:*		98
		East-West:	704		*East-West:*	721		*East-West:*		705		*East-West:*		722		*East-West:*		722
		SUM:	797		*SUM:*	814		*SUM:*		803		*SUM:*		820		*SUM:*		820
VOLUME/CAPACITY *(V/C)* RATIO:			0.559			0.571				0.564				0.575				0.575
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.459**			**0.471**				**0.464**				**0.475**				**0.475**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.011	∆*v/c* after mitigation:	0.011
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	
	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	369	2	**203**	29	398	**219**	9	378	2	**208**	29	407	2	**224**	0	407	2	**224**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	276	1	0	0	276	0	0	276	1	0	0	276	1	0	0	276	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	481	1	481	7	488	488	2	483	1	483	7	490	1	490	0	490	1	490
	Through-Right		0							0				0				0	
	Right	833	1	**630**	27	860	**641**	9	842	1	**634**	27	869	1	**645**	0	869	1	**645**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	505	1	**505**	0	505	**505**	0	505	1	**505**	0	505	1	**505**	0	505	1	**505**
	Left-Through		0							0				0				0	
	Through	305	2	153	9	314	157	2	307	2	154	9	316	2	158	0	316	2	158
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	North-South:	203	North-South:	219	North-South:	208	North-South:	224	North-South:	224
	East-West:	1135	East-West:	1146	East-West:	1139	East-West:	1150	East-West:	1150
	SUM:	1338	SUM:	1365	SUM:	1347	SUM:	1374	SUM:	1374
VOLUME/CAPACITY (V/C) RATIO:		0.939		0.958		0.945		0.964		0.964
V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.839**		**0.858**		**0.845**		**0.864**		**0.864**
LEVEL OF SERVICE (LOS):		**D**		**D**		**D**		**D**		**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.019	Δ*v/c* after mitigation:	0.019
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				0				0				0				0							0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0							0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2							2
Override Capacity				1200				1200				1200				1200							1200

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	81	1	**81**	0	81	**81**	1	82	1	**82**	0	82	1	**82**	0	82	1	**82**
Left-Through		0							0				0				0	
Through	175	2	88	16	191	96	6	181	2	91	16	197	2	99	0	197	2	99
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1106	2	**553**	21	1127	**564**	8	1115	2	**558**	21	1136	2	**568**	0	1136	2	**568**
Through-Right		0							0				0				0	
Right	211	1	0	5	216	0	2	213	1	0	5	218	1	0	0	218	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	478	2	**263**	13	491	**270**	4	482	2	**265**	13	495	2	**272**	0	495	2	**272**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	38	1	0	0	38	0	0	38	1	0	0	38	1	0	0	38	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	634		*North-South:*	645		*North-South:*		640		*North-South:*		650			*North-South:*	650
		East-West:	263		*East-West:*	270		*East-West:*		265		*East-West:*		272			*East-West:*	272
		SUM:	897		*SUM:*	915		*SUM:*		905		*SUM:*		922			*SUM:*	922
VOLUME/CAPACITY *(V/C)* RATIO:			0.748			0.763				0.754				0.768				0.768
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.648**			**0.663**				**0.654**				**0.668**				**0.668**
LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.014	∆*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	5	1	**5**	0	5	**5**	0	5	1	**5**	0	5	1	**5**	0	5	1	**5**
Left-Through		0							0				0				0	
Through	111	2	56	0	111	56	8	119	2	60	0	119	2	60	0	119	2	60
Through-Right		0							0				0				0	
Right	140	1	0	10	150	0	5	145	1	0	10	155	1	0	0	155	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	37	1	37	6	43	43	2	39	1	39	6	45	1	45	0	45	1	45
Left-Through		0							0				0				0	
Through	2296	1	**1149**	0	2296	**1149**	11	2308	1	**1155**	0	2308	1	**1155**	0	2308	1	**1155**
Through-Right		1							1				1				1	
Right	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
Left-Through		1							1				1				1	
Through	1	0	**3**	0	1	**3**	0	1	0	**3**	0	1	0	**3**	0	1	0	**3**
Through-Right		0							0				0				0	
Right	4	1	2	0	4	2	0	4	1	2	0	4	1	2	0	4	1	2
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	1003	1	**505**	18	1021	**514**	6	1010	1	**509**	18	1028	1	**518**	0	1028	1	**518**
Left-Through		1							1				1				1	
Through	7	0	505	0	7	514	0	7	0	509	0	7	0	518	0	7	0	518
Through-Right		0							0				0				0	
Right	54	1	17	3	57	14	1	55	1	16	3	58	1	13	0	58	1	13
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	1154		*North-South:*	1154		*North-South:*		1160		*North-South:*		1160		*North-South:*		1160
		East-West:	508		*East-West:*	517		*East-West:*		512		*East-West:*		521		*East-West:*		521
		SUM:	1662		*SUM:*	1671		*SUM:*		1672		*SUM:*		1681		*SUM:*		1681
VOLUME/CAPACITY *(V/C)* RATIO:			1.209			1.215				1.216				1.223				1.223
V/C LESS ATSAC/ATCS ADJUSTMENT:			**1.109**			**1.115**				**1.116**				**1.123**				**1.123**
LEVEL OF SERVICE (LOS):			**F**			**F**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	∆*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	236	2	118	10	246	123	13	249	2	125	10	259	2	130	0	259	2	130
	Through-Right		0							0				0				0	
	Right	5	1	0	0	5	0	0	5	1	0	0	5	1	0	0	5	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	694	2	382	10	704	387	3	697	2	383	10	707	2	389	0	707	2	389
	Left-Through		0							0				0				0	
	Through	2579	2	**1290**	8	2587	**1294**	14	2595	2	**1298**	8	2603	2	**1302**	0	2603	2	**1302**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	402	1	**402**	0	402	**402**	3	405	1	**405**	0	405	1	**405**	0	405	1	**405**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	65	1	0	0	65	0	0	65	1	0	0	65	1	0	0	65	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	1290		*North-South:*	1294		*North-South:*		1298		*North-South:*		1302			*North-South:*	1302
			East-West:	402		*East-West:*	402		*East-West:*		405		*East-West:*		405			*East-West:*	405
			SUM:	1692		*SUM:*	1696		*SUM:*		1703		*SUM:*		1707			*SUM:*	1707
VOLUME/CAPACITY *(V/C)* RATIO:				1.187			1.190				1.195				1.198				1.198
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.087**			**1.090**				**1.095**				**1.098**				**1.098**
LEVEL OF SERVICE (LOS):				**F**			**F**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	∆*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	73	1	**73**	0	73	**73**	0	73	1	**73**	0	73	1	**73**	0	73	1	**73**
Left-Through		0							0				0				0	
Through	192	2	96	10	202	101	11	203	2	102	10	213	2	107	0	213	2	107
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	2727	2	**1364**	8	2735	**1368**	14	2743	2	**1372**	8	2751	2	**1376**	0	2751	2	**1376**
Through-Right		0							0				0				0	
Right	59	1	49	0	59	49	3	62	1	52	0	62	1	52	0	62	1	52
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	38	2	**21**	0	38	**21**	1	39	2	**21**	0	39	2	**21**	0	39	2	**21**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	48	1	12	0	48	12	0	48	1	12	0	48	1	12	0	48	1	12
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		1437	*North-South:*		1441	*North-South:*			1445	*North-South:*			1449	*North-South:*			1449
	East-West:		21	*East-West:*		21	*East-West:*			21	*East-West:*			21	*East-West:*			21
	SUM:		1458	*SUM:*		1462	*SUM:*			1466	*SUM:*			1470	*SUM:*			1470
VOLUME/CAPACITY *(V/C)* RATIO:			1.023			1.026				1.029				1.032				1.032
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.923**			**0.926**				**0.929**				**0.932**				**0.932**
LEVEL OF SERVICE (LOS):			**E**			**E**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	∆*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				0				0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	2	SB--	0	NB--	2	SB--	0	NB--	2	SB--	0	NB--	2	SB--	0	NB--	2	SB--	0	NB--	2	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2				2
Override Capacity				1200				1200				1200				1200				1200				1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	183	1	183	0	183	183	0	194	1	194	0	194	1	194	0	194	1	194
	Left-Through		0							0				0				0	
	Through	1046	2	**492**	0	1046	**492**	38	1148	2	**535**	0	1148	2	**535**	0	1148	2	**535**
	Through-Right		1							1				1				1	
	Right	430	0	430	1	431	431	1	457	0	457	1	458	0	458	0	458	0	458
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	75	1	**75**	0	75	**75**	0	80	1	**80**	0	80	1	**80**	0	80	1	**80**
	Left-Through		0							0				0				0	
	Through	591	2	288	1	592	288	46	673	2	321	1	674	2	321	0	674	2	321
	Through-Right		1							1				1				1	
	Right	272	0	272	0	272	272	0	289	0	289	0	289	0	289	0	289	0	289
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	237	0	237	0	237	237	0	252	0	252	0	252	0	252	0	252	0	252
	Left-Through		1							1				1				1	
	Through	367	0	**346**	0	367	**346**	0	390	0	**368**	0	390	0	**368**	0	390	0	**368**
	Through-Right		1							1				1				1	
	Right	88	0	346	0	88	346	0	93	0	368	0	93	0	368	0	93	0	368
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		567	*North-South:*		567	*North-South:*			615	*North-South:*			615	*North-South:*			615
		East-West:		346	*East-West:*		346	*East-West:*			368	*East-West:*			368	*East-West:*			368
		SUM:		913	*SUM:*		913	*SUM:*			983	*SUM:*			983	*SUM:*			983
VOLUME/CAPACITY *(V/C)* RATIO:				0.761			0.761				0.819				0.819				0.819
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.661**			**0.661**				**0.719**				**0.719**				**0.719**
LEVEL OF SERVICE (LOS):				**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0			0			0			0			0			0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2
Override Capacity			1200			1200			1200			1200			1200			1200

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	194	1	194	1	195	195	24	230	1	230	1	231	1	231	0	231	1	231
Left-Through		0							0				0				0	
Through	384	1	**225**	1	385	**226**	3	411	1	**254**	1	412	1	**254**	0	412	1	**254**
Through-Right		1							1				1				1	
Right	66	0	66	0	66	66	26	96	0	96	0	96	0	96	0	96	0	96
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	211	2	116	0	211	116	26	250	2	138	0	250	2	138	0	250	2	138
Left-Through		0							0				0				0	
Through	146	1	**146**	1	147	**147**	5	160	1	**160**	1	161	1	**161**	0	161	1	**161**
Through-Right		0							0				0				0	
Right	226	1	46	0	226	46	15	255	1	57	0	255	1	57	0	255	1	57
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	180	1	**180**	0	180	**180**	7	198	1	**198**	0	198	1	**198**	0	198	1	**198**
Left-Through		0							0				0				0	
Through	1022	2	373	0	1022	373	40	1125	2	413	0	1125	2	414	0	1125	2	414
Through-Right		1							1				1				1	
Right	96	0	96	2	98	98	12	114	0	114	2	116	0	116	0	116	0	116
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	48	1	48	0	48	48	29	80	1	80	0	80	1	80	0	80	1	80
Left-Through		0							0				0				0	
Through	1496	3	**499**	0	1496	**499**	41	1629	3	**543**	0	1629	3	**543**	0	1629	3	**543**
Through-Right		0							0				0				0	
Right	677	2	256	0	677	256	29	748	2	273	0	748	2	273	0	748	2	273
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		371	*North-South:*		373	*North-South:*			414	*North-South:*			415	*North-South:*			415
	East-West:		679	*East-West:*		679	*East-West:*			741	*East-West:*			741	*East-West:*			741
	SUM:		1050	*SUM:*		1052	*SUM:*			1155	*SUM:*			1156	*SUM:*			1156
VOLUME/CAPACITY *(V/C)* RATIO:			0.875			0.877				0.963				0.963				0.963
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.775**			**0.777**				**0.863**				**0.863**				**0.863**
LEVEL OF SERVICE (LOS):			**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	247	1	**247**	0	247	**247**	0	262	1	**262**	0	262	1	**262**	0	262	1	**262**
Left-Through		0							0				0				0	
Through	734	2	259	1	735	260	21	800	2	282	1	801	2	283	0	801	2	283
Through-Right		1							1				1				1	
Right	44	0	44	0	44	44	0	47	0	47	0	47	0	47	0	47	0	47
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22
Left-Through		0							0				0				0	
Through	486	2	**243**	1	487	**244**	15	531	2	**266**	1	532	2	**266**	0	532	2	**266**
Through-Right		1							1				1				1	
Right	676	1	76	0	676	76	1	719	1	78	0	719	1	78	0	719	1	78
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	479	1	**296**	0	479	**296**	5	513	1	**317**	0	513	1	**317**	0	513	1	**317**
Left-Through		0							0				0				0	
Through	69	0	296	0	69	296	0	73	0	317	0	73	0	317	0	73	0	317
Through-Right		0							0				0				0	
Right	44	0	0	0	44	0	0	47	0	0	0	47	0	0	0	47	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	30	1	30	0	30	30	0	32	1	32	0	32	1	32	0	32	1	32
Left-Through		0							0				0				0	
Through	428	0	**443**	0	428	**443**	0	454	0	**470**	0	454	0	**470**	0	454	0	**470**
Through-Right		1							1				1				1	
Right	15	0	0	0	15	0	0	16	0	0	0	16	0	0	0	16	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES *North-South:*			490			491				528				528				528
East-West:			739			739				787				787				787
SUM:			1229			1230				1315				1315				1315
VOLUME/CAPACITY *(V/C)* RATIO:			0.894			0.895				0.956				0.956				0.956
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.794			0.795				0.856				0.856				0.856
LEVEL OF SERVICE (LOS):			C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0			0			0			0			0			0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	1	EB-- 0	WB--	1	EB-- 0	WB--	1	EB-- 0	WB--	1	EB-- 0	WB--	1	EB-- 0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2
Override Capacity			1200			1200			1200			1200			1200			1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	907	2	**452**	1	908	**453**	21	984	2	**487**	1	985	2	**488**	0	985	2	**488**
	Through-Right		1							1				1				1	
	Right	450	0	450	0	450	450	0	478	0	478	0	478	0	478	0	478	0	478
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	68	1	**68**	0	68	**68**	0	72	1	**72**	0	72	1	**72**	0	72	1	**72**
	Left-Through		0							0				0				0	
	Through	526	2	263	1	527	264	15	573	2	287	1	574	2	287	0	574	2	287
	Through-Right		0							0				0				0	
	Right	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	5	0	0	0	5	0	0	5	0	0	0	5	0	0	0	5	0	0
	Left-Through		0							0				0				0	
	Through	2	0	**0**	0	2	**0**	0	2	0	**0**	0	2	0	**0**	0	2	0	**0**
	Through-Right		0							0				0				0	
	Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	395	1	**198**	0	395	**198**	0	419	1	**210**	0	419	1	**210**	0	419	1	**210**
	Left-Through		1							1				1				1	
	Through	0	0	198	0	0	198	0	0	0	210	0	0	0	210	0	0	0	210
	Through-Right		0							0				0				0	
	Right	224	1	0	0	224	0	0	238	1	0	0	238	1	0	0	238	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		520	North-South:		521	North-South:			559	North-South:			560	North-South:			560
		East-West:		198	East-West:		198	East-West:			210	East-West:			210	East-West:			210
		SUM:		718	SUM:		719	SUM:			769	SUM:			770	SUM:			770
VOLUME/CAPACITY (V/C) RATIO:				0.598			0.599				0.641				0.642				0.642
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.498			0.499				0.541				0.542				0.542
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1				1				1				1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	132	2	**73**	0	132	**73**	12	152	2	**84**	0	152	2	**84**	0	152	2	**84**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	40	1	31	0	40	31	2	44	1	33	0	44	1	33	0	44	1	33
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	19	1	**19**	0	19	**19**	3	23	1	**23**	0	23	1	**23**	0	23	1	**23**
Left-Through		0							0				0				0	
Through	427	2	214	12	439	220	4	457	2	229	12	469	2	235	0	469	2	235
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	685	1	**685**	9	694	**694**	3	730	1	**730**	9	739	1	**739**	0	739	1	**739**
Through-Right		0							0				0				0	
Right	56	1	0	0	56	0	10	69	1	0	0	69	1	0	0	69	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		73	*North-South:*		73	*North-South:*			84	*North-South:*			84	*North-South:*			84
	East-West:		704	*East-West:*		713	*East-West:*			753	*East-West:*			762	*East-West:*			762
	SUM:		777	*SUM:*		786	*SUM:*			837	*SUM:*			846	*SUM:*			846
VOLUME/CAPACITY *(V/C)* RATIO:			0.545			0.552				0.587				0.594				0.594
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.445			0.452				0.487				0.494				0.494
LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	∆*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	
	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	415	2	**228**	7	422	**232**	10	451	2	**248**	7	458	2	**252**	0	458	2	**252**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	332	1	36	0	332	36	0	352	1	38	0	352	1	38	0	352	1	38
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	118	1	**118**	3	121	**121**	2	127	1	**127**	3	130	1	**130**	0	130	1	**130**
Through-Right		0							0				0				0	
Right	185	1	0	9	194	0	14	210	1	0	9	219	1	0	0	219	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	296	1	**296**	0	296	**296**	0	314	1	**314**	0	314	1	**314**	0	314	1	**314**
Left-Through		0							0				0				0	
Through	354	2	177	2	356	178	2	378	2	189	2	380	2	190	0	380	2	190
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		228	*North-South:*		232	*North-South:*			248	*North-South:*			252	*North-South:*			252
	East-West:		414	*East-West:*		417	*East-West:*			441	*East-West:*			444	*East-West:*			444
	SUM:		642	*SUM:*		649	*SUM:*			689	*SUM:*			696	*SUM:*			696
VOLUME/CAPACITY *(V/C)* RATIO:			0.451			0.455				0.484				0.488				0.488
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.351**			**0.355**				**0.384**				**0.388**				**0.388**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				0				0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2				2
Override Capacity				1200				1200				1200				1200				1200				1200

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	668	1	**668**	0	668	**668**	8	717	1	**717**	0	717	1	**717**	0	717	1	**717**
Left-Through		0							0				0				0	
Through	477	2	239	4	481	241	7	513	2	257	4	517	2	259	0	517	2	259
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	244	2	**122**	7	251	**126**	12	271	2	**136**	7	278	2	**139**	0	278	2	**139**
Through-Right		0							0				0				0	
Right	211	1	0	2	213	0	2	226	1	0	2	228	1	0	0	228	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	294	2	**162**	3	297	**163**	3	315	2	**173**	3	318	2	**175**	0	318	2	**175**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	70	1	0	0	70	0	0	74	1	0	0	74	1	0	0	74	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		790	*North-South:*		794	*North-South:*			853	*North-South:*			856	*North-South:*			856
	East-West:		162	*East-West:*		163	*East-West:*			173	*East-West:*			175	*East-West:*			175
	SUM:		952	*SUM:*		957	*SUM:*			1026	*SUM:*			1031	*SUM:*			1031
VOLUME/CAPACITY *(V/C)* RATIO:			0.793			0.798				0.855				0.859				0.859
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.693**			**0.698**				**0.755**				**0.759**				**0.759**
LEVEL OF SERVICE (LOS):			**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	∆*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				4				4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2				2				2				2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0
	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	5	1	5	0	5	5	0	5	1	5	0	5	1	5	0	5	1	5
	Left-Through		0							0				0				0	
	Through	1565	2	783	0	1565	783	12	1673	2	837	0	1673	2	837	0	1673	2	837
	Through-Right		0							0				0				0	
	Right	1165	1	**1051**	2	1167	**1050**	13	1250	1	**1124**	2	1252	1	**1123**	0	1252	1	**1123**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	46	1	**46**	1	47	**47**	2	51	1	**51**	1	52	1	**52**	0	52	1	**52**
	Left-Through		0							0				0				0	
	Through	219	1	110	0	219	110	9	241	1	121	0	241	1	121	0	241	1	121
	Through-Right		1							1				1				1	
	Right	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	10	0	10	0	10	10	0	11	0	11	0	11	0	11	0	11	0	11
	Left-Through		1							1				1				1	
	Through	11	0	**21**	0	11	**21**	0	12	0	**23**	0	12	0	**23**	0	12	0	**23**
	Through-Right		0							0				0				0	
	Right	11	1	9	0	11	9	0	12	1	10	0	12	1	10	0	12	1	10
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	225	1	**114**	6	231	**117**	10	249	1	**126**	6	255	1	**129**	0	255	1	**129**
	Left-Through		1							1				1				1	
	Through	2	0	114	0	2	117	0	2	0	126	0	2	0	129	0	2	0	129
	Through-Right		0							0				0				0	
	Right	101	1	55	1	102	55	1	108	1	57	1	109	1	57	0	109	1	57
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		1097	*North-South:*		1097	*North-South:*			1175	*North-South:*			1175	*North-South:*			1175
		East-West:		135	*East-West:*		138	*East-West:*			149	*East-West:*			152	*East-West:*			152
		SUM:		1232	*SUM:*		1235	*SUM:*			1324	*SUM:*			1327	*SUM:*			1327
VOLUME/CAPACITY *(V/C)* RATIO:				0.896			0.898				0.963				0.965				0.965
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.796**			**0.798**				**0.863**				**0.865**				**0.865**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	∆*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4				4				4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB--	0	NB--	1	SB--	0	NB--	1	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	2574	2	**1287**	2	2576	**1288**	25	2757	2	**1379**	2	2759	2	**1380**	0	2759	2	**1380**
Through-Right		0							0				0				0	
Right	8	1	0	0	8	0	0	8	1	0	0	8	1	0	0	8	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	198	2	**109**	4	202	**111**	4	214	2	**118**	4	218	2	**120**	0	218	2	**120**
Left-Through		0							0				0				0	
Through	276	2	138	3	279	140	16	309	2	155	3	312	2	156	0	312	2	156
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	48	1	**48**	0	48	**48**	12	63	1	**63**	0	63	1	**63**	0	63	1	**63**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	97	1	43	0	97	42	0	103	1	44	0	103	1	43	0	103	1	43
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		1396	*North-South:*		1399	*North-South:*			1497	*North-South:*			1500	*North-South:*			1500
	East-West:		48	*East-West:*		48	*East-West:*			63	*East-West:*			63	*East-West:*			63
	SUM:		1444	*SUM:*		1447	*SUM:*			1560	*SUM:*			1563	*SUM:*			1563
VOLUME/CAPACITY *(V/C)* RATIO:			1.050			1.052				1.135				1.137				1.137
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.950**			**0.952**				**1.035**				**1.037**				**1.037**
LEVEL OF SERVICE (LOS):			**E**			**E**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	**0.002**	**Δ*v/c* after mitigation:**	**0.002**
Significant impacted?	**NO**	**Fully mitigated?**	**N/A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	60	1	60	0	60	60	0	64	1	64	0	64	1	64	0	64	1	64
Left-Through		0							0				0				0	
Through	2489	2	**1245**	2	2491	**1246**	18	2660	2	**1330**	2	2662	2	**1331**	0	2662	2	**1331**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	334	2	167	3	337	169	16	371	2	186	3	374	2	187	0	374	2	187
Through-Right		0							0				0				0	
Right	50	1	34	0	50	34	12	65	1	45	0	65	1	45	0	65	1	45
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	60	2	**33**	0	60	**33**	8	72	2	**40**	0	72	2	**40**	0	72	2	**40**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	41	1	11	0	41	11	0	44	1	12	0	44	1	12	0	44	1	12
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	1245		*North-South:*	1246		*North-South:*		1330		*North-South:*		1331		*North-South:*		1331
		East-West:	33		*East-West:*	33		*East-West:*		40		*East-West:*		40		*East-West:*		40
		SUM:	1278		*SUM:*	1279		*SUM:*		1370		*SUM:*		1371		*SUM:*		1371
VOLUME/CAPACITY *(V/C)* RATIO:			0.897			0.898				0.961				0.962				0.962
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.797**			**0.798**				**0.861**				**0.862**				**0.862**
LEVEL OF SERVICE (LOS):			**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	∆*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	109	1	109	0	109	109	0	116	1	116	0	116	1	116	0	116	1	116
Left-Through		0							0				0				0	
Through	806	2	**388**	0	806	**388**	38	894	2	**425**	0	894	2	**425**	0	894	2	**425**
Through-Right		1							1				1				1	
Right	357	0	357	2	359	359	1	380	0	380	2	382	0	382	0	382	0	382
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	74	1	**74**	0	74	**74**	0	79	1	**79**	0	79	1	**79**	0	79	1	**79**
Left-Through		0							0				0				0	
Through	689	2	317	3	692	318	46	777	2	352	3	780	2	353	0	780	2	353
Through-Right		1							1				1				1	
Right	263	0	263	0	263	263	0	279	0	279	0	279	0	279	0	279	0	279
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	141	0	141	0	141	141	0	150	0	150	0	150	0	150	0	150	0	150
Left-Through		1							1				1				1	
Through	235	0	**229**	0	235	**229**	0	249	0	**243**	0	249	0	**243**	0	249	0	**243**
Through-Right		1							1				1				1	
Right	82	0	229	0	82	229	0	87	0	243	0	87	0	243	0	87	0	243
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES *North-South:*			462			462				504				504				504
East-West:			229			229				243				243				243
SUM:			691			691				747				747				747
VOLUME/CAPACITY *(V/C)* RATIO:			0.461			0.461				0.498				0.498				0.498
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.361			0.361				0.398				0.398				0.398
LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				4				4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1				1				1				1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3
	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	183	1	183	3	186	186	24	218	1	218	3	221	1	221	0	221	1	221
Left-Through		0							0				0				0	
Through	342	1	**197**	2	344	**198**	3	366	1	**223**	2	368	1	**224**	0	368	1	**224**
Through-Right		1							1				1				1	
Right	51	0	51	0	51	51	26	80	0	80	0	80	0	80	0	80	0	80
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	221	2	122	0	221	122	26	261	2	144	0	261	2	144	0	261	2	144
Left-Through		0							0				0				0	
Through	144	1	**144**	3	147	**147**	5	158	1	**158**	3	161	1	**161**	0	161	1	**161**
Through-Right		0							0				0				0	
Right	224	1	26	0	224	26	15	253	1	36	0	253	1	36	0	253	1	36
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	198	1	**198**	0	198	**198**	7	217	1	**217**	0	217	1	**217**	0	217	1	**217**
Left-Through		0							0				0				0	
Through	913	2	343	0	913	344	40	1009	2	381	0	1009	2	382	0	1009	2	382
Through-Right		1							1				1				1	
Right	115	0	115	4	119	119	12	134	0	134	4	138	0	138	0	138	0	138
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	51	1	51	0	51	51	29	83	1	83	0	83	1	83	0	83	1	83
Left-Through		0							0				0				0	
Through	1274	3	**425**	0	1274	**425**	41	1393	3	**464**	0	1393	3	**464**	0	1393	3	**464**
Through-Right		0							0				0				0	
Right	492	2	149	0	492	149	29	551	2	159	0	551	2	159	0	551	2	159
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	341		*North-South:*	345		*North-South:*		381		*North-South:*		385		*North-South:*		385
		East-West:	623		*East-West:*	623		*East-West:*		681		*East-West:*		681		*East-West:*		681
		SUM:	964		*SUM:*	968		*SUM:*		1062		*SUM:*		1066		*SUM:*		1066
VOLUME/CAPACITY *(V/C)* RATIO:			0.701			0.704				0.772				0.775				0.775
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.601**			**0.604**				**0.672**				**0.675**				**0.675**
LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	269	1	**269**	0	269	**269**	0	286	1	**286**	0	286	1	**286**	0	286	1	**286**
Left-Through		0							0				0				0	
Through	640	1	336	2	642	337	21	700	1	367	2	702	1	368	0	702	1	368
Through-Right		1							1				1				1	
Right	31	0	31	0	31	31	0	33	0	33	0	33	0	33	0	33	0	33
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	17	1	17	0	17	17	0	18	1	18	0	18	1	18	0	18	1	18
Left-Through		0							0				0				0	
Through	454	2	**227**	2	456	**228**	15	497	2	**245**	2	499	2	**246**	0	499	2	**246**
Through-Right		1							1				1				1	
Right	454	1	0	0	454	0	1	483	1	0	0	483	1	0	0	483	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	569	1	**334**	0	569	**334**	5	609	1	**357**	0	609	1	**357**	0	609	1	**357**
Left-Through		0							0				0				0	
Through	61	0	334	0	61	334	0	65	0	357	0	65	0	357	0	65	0	357
Through-Right		0							0				0				0	
Right	38	0	0	0	38	0	0	40	0	0	0	40	0	0	0	40	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	45	1	45	0	45	45	0	48	1	48	0	48	1	48	0	48	1	48
Left-Through		0							0				0				0	
Through	337	0	**365**	0	337	**365**	0	358	0	**388**	0	358	0	**388**	0	358	0	**388**
Through-Right		1							1				1				1	
Right	28	0	0	0	28	0	0	30	0	0	0	30	0	0	0	30	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES *North-South:*			496			497				531				532				532
East-West:			699			699				745				745				745
SUM:			1195			1196				1276				1277				1277
VOLUME/CAPACITY *(V/C)* RATIO:			0.869			0.870				0.928				0.929				0.929
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.769**			**0.770**				**0.828**				**0.829**				**0.829**
LEVEL OF SERVICE (LOS):			**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	∆*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	792	1	**561**	2	794	**562**	21	862	1	**606**	2	864	1	**607**	0	864	1	**607**
Through-Right		1							1				1				1	
Right	330	0	330	0	330	330	0	350	0	350	0	350	0	350	0	350	0	350
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	83	1	**83**	0	83	**83**	0	88	1	**88**	0	88	1	**88**	0	88	1	**88**
Left-Through		0							0				0				0	
Through	491	3	164	2	493	164	15	536	3	179	2	538	3	179	0	538	3	179
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	6	0	0	0	6	0	0	6	0	0	0	6	0	0	0	6	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	298	1	**149**	0	298	**149**	0	316	1	**158**	0	316	1	**158**	0	316	1	**158**
Left-Through		1							1				1				1	
Through	0	0	149	0	0	149	0	0	0	158	0	0	0	158	0	0	0	158
Through-Right		0							0				0				0	
Right	243	1	0	0	243	0	0	258	1	0	0	258	1	0	0	258	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	644		*North-South:*	645		*North-South:*		694		*North-South:*		695		*North-South:*		695
		East-West:	149		*East-West:*	149		*East-West:*		158		*East-West:*		158		*East-West:*		158
		SUM:	793		*SUM:*	794		*SUM:*		852		*SUM:*		853		*SUM:*		853
VOLUME/CAPACITY *(V/C)* RATIO:			0.556			0.557				0.598				0.599				0.599
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.456**			**0.457**				**0.498**				**0.499**				**0.499**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	∆*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	107	2	**59**	0	107	**59**	12	126	2	**69**	0	126	2	**69**	0	126	2	**69**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	28	1	20	0	28	20	2	32	1	22	0	32	1	22	0	32	1	22
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	16	1	**16**	0	16	**16**	3	20	1	**20**	0	20	1	**20**	0	20	1	**20**
Left-Through		0							0				0				0	
Through	420	2	210	27	447	224	4	450	2	225	27	477	2	239	0	477	2	239
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	718	1	**718**	22	740	**740**	3	765	1	**765**	22	787	1	**787**	0	787	1	**787**
Through-Right		0							0				0				0	
Right	65	1	6	0	65	6	10	79	1	10	0	79	1	10	0	79	1	10
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		59	*North-South:*		59	*North-South:*			69	*North-South:*			69	*North-South:*			69
	East-West:		734	*East-West:*		756	*East-West:*			785	*East-West:*			807	*East-West:*			807
	SUM:		793	*SUM:*		815	*SUM:*			854	*SUM:*			876	*SUM:*			876
VOLUME/CAPACITY *(V/C)* RATIO:			0.556			0.572				0.599				0.615				0.615
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.456**			**0.472**				**0.499**				**0.515**				**0.515**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.016	∆*v/c* after mitigation:	0.016
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases				3				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0
	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2				2
Override Capacity				0				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	361	2	**199**	17	378	**208**	10	393	2	**216**	17	410	2	**226**	0	410	2	**226**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	559	1	150	0	559	150	0	593	1	159	0	593	1	159	0	593	1	159
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	271	1	**271**	6	277	**277**	2	290	1	**290**	6	296	1	**296**	0	296	1	**296**
	Through-Right		0							0				0				0	
	Right	377	1	178	21	398	190	14	414	1	198	21	435	1	209	0	435	1	209
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	409	1	**409**	0	409	**409**	0	434	1	**434**	0	434	1	**434**	0	434	1	**434**
	Left-Through		0							0				0				0	
	Through	324	2	162	5	329	165	2	346	2	173	5	351	2	176	0	351	2	176
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		199	*North-South:*		208	*North-South:*			216	*North-South:*			226	*North-South:*			226
		East-West:		680	*East-West:*		686	*East-West:*			724	*East-West:*			730	*East-West:*			730
		SUM:		879	*SUM:*		894	*SUM:*			940	*SUM:*			956	*SUM:*			956
VOLUME/CAPACITY *(V/C)* RATIO:				0.617			0.627				0.660				0.671				0.671
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.517**			**0.527**				**0.560**				**0.571**				**0.571**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	**0.011**	**Δ*v/c* after mitigation:**	**0.011**
Significant impacted?	**NO**	**Fully mitigated?**	**N/A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	369	1	**369**	0	369	**369**	8	400	1	**400**	0	400	1	**400**	0	400	1	**400**
Left-Through		0							0				0				0	
Through	609	2	305	9	618	309	7	653	2	327	9	662	2	331	0	662	2	331
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	480	2	**240**	17	497	**249**	12	522	2	**261**	17	539	2	**270**	0	539	2	**270**
Through-Right		0							0				0				0	
Right	311	1	0	4	315	0	2	332	1	0	4	336	1	0	0	336	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	288	2	**158**	7	295	**162**	3	309	2	**170**	7	316	2	**174**	0	316	2	**174**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	69	1	0	0	69	0	0	73	1	0	0	73	1	0	0	73	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	609		*North-South:*	618		*North-South:*		661		*North-South:*		670		*North-South:*		670
		East-West:	158		*East-West:*	162		*East-West:*		170		*East-West:*		174		*East-West:*		174
		SUM:	767		*SUM:*	780		*SUM:*		831		*SUM:*		844		*SUM:*		844
VOLUME/CAPACITY *(V/C)* RATIO:			0.538			0.547				0.583				0.592				0.592
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.438**			**0.447**				**0.483**				**0.492**				**0.492**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	∆*v/c* after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	34	1	34	0	34	34	0	36	1	36	0	36	1	36	0	36	1	36
Left-Through		0							0				0				0	
Through	1125	2	563	0	1125	563	12	1206	2	603	0	1206	2	603	0	1206	2	603
Through-Right		0							0				0				0	
Right	912	1	**682**	6	918	**680**	13	981	1	**732**	6	987	1	**730**	0	987	1	**730**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	37	1	**37**	4	41	**41**	2	41	1	**41**	4	45	1	**45**	0	45	1	**45**
Left-Through		0							0				0				0	
Through	256	1	132	0	256	132	9	281	1	145	0	281	1	145	0	281	1	145
Through-Right		1							1				1				1	
Right	8	0	8	0	8	8	0	8	0	8	0	8	0	8	0	8	0	8
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	7	0	7	0	7	7	0	7	0	7	0	7	0	7	0	7	0	7
Left-Through		1							1				1				1	
Through	9	0	**16**	0	9	**16**	0	10	0	**17**	0	10	0	**17**	0	10	0	**17**
Through-Right		0							0				0				0	
Right	11	1	0	0	11	0	0	12	1	0	0	12	1	0	0	12	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	452	1	**230**	15	467	**238**	10	490	1	**249**	15	505	1	**257**	0	505	1	**257**
Left-Through		1							1				1				1	
Through	8	0	230	0	8	238	0	8	0	249	0	8	0	257	0	8	0	257
Through-Right		0							0				0				0	
Right	106	1	69	2	108	67	1	114	1	73	2	116	1	71	0	116	1	71
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		719	*North-South:*		721	*North-South:*			773	*North-South:*			775	*North-South:*			775
	East-West:		246	*East-West:*		254	*East-West:*			266	*East-West:*			274	*East-West:*			274
	SUM:		965	*SUM:*		975	*SUM:*			1039	*SUM:*			1049	*SUM:*			1049
VOLUME/CAPACITY *(V/C)* RATIO:			0.702			0.709				0.756				0.763				0.763
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.602**			**0.609**				**0.656**				**0.663**				**0.663**
LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3				3				3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB--	0	NB--	1	SB--	0	NB--	1	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2		
Override Capacity			0			0			0				0				0		

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1854	2	**927**	6	1860	**930**	25	1993	2	**997**	6	1999	2	**1000**	0	1999	2	**1000**
Through-Right		0							0				0				0	
Right	9	1	0	0	9	0	0	10	1	0	0	10	1	0	0	10	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	318	2	**175**	8	326	**179**	4	342	2	**188**	8	350	2	**193**	0	350	2	**193**
Left-Through		0							0				0				0	
Through	409	2	205	7	416	208	16	450	2	225	7	457	2	229	0	457	2	229
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	82	1	82	0	82	82	12	99	1	99	0	99	1	99	0	99	1	99
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	195	1	**108**	0	195	**106**	0	207	1	**113**	0	207	1	**111**	0	207	1	**111**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		1102	*North-South:*		1109	*North-South:*			1185	*North-South:*			1193	*North-South:*			1193
	East-West:		108	*East-West:*		106	*East-West:*			113	*East-West:*			111	*East-West:*			111
	SUM:		1210	*SUM:*		1215	*SUM:*			1298	*SUM:*			1304	*SUM:*			1304
VOLUME/CAPACITY *(V/C)* RATIO:			0.849			0.853				0.911				0.915				0.915
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.749**			**0.753**				**0.811**				**0.815**				**0.815**
LEVEL OF SERVICE (LOS):			**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

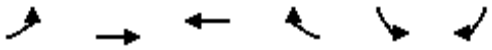
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	59	1	59	0	59	59	0	63	1	63	0	63	1	63	0	63	1	63
Left-Through		0							0				0				0	
Through	1331	2	**666**	6	1337	**669**	18	1431	2	**716**	6	1437	2	**719**	0	1437	2	**719**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	339	2	170	7	346	173	16	376	2	188	7	383	2	192	0	383	2	192
Through-Right		0							0				0				0	
Right	59	1	37	0	59	37	12	75	1	49	0	75	1	49	0	75	1	49
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	81	2	**45**	0	81	**45**	8	94	2	**52**	0	94	2	**52**	0	94	2	**52**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	53	1	24	0	53	24	0	56	1	25	0	56	1	25	0	56	1	25
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	666		*North-South:*	669		*North-South:*		716		*North-South:*		719			*North-South:*	719
		East-West:	45		*East-West:*	45		*East-West:*		52		*East-West:*		52			*East-West:*	52
		SUM:	711		*SUM:*	714		*SUM:*		768		*SUM:*		771			*SUM:*	771
VOLUME/CAPACITY *(V/C)* RATIO:			0.499			0.501				0.539				0.541				0.541
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.399			0.401				0.439				0.441				0.441
LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

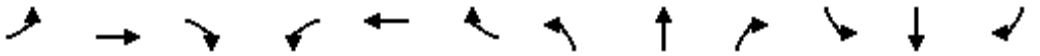
Change in *v/c* due to project:	0.002	∆*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	37	10	136	1082	9
Future Volume (Veh/h)	3	37	10	136	1082	9
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	40	11	148	1176	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2362	2357	2362	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2362	2357	2362	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	0	0	0	86	28	
cM capacity (veh/h)	0	10	10	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	43	11	148	1186
Volume Left	3	0	0	1176
Volume Right	0	0	148	10
cSH	0	10	1085	1623
Volume to Capacity	Err	1.13	0.14	0.72
Queue Length 95th (ft)	Err	53	12	175
Control Delay (s)	Err	840.1	8.8	12.8
Lane LOS	F	F	A	B
Approach Delay (s)	Err	66.3		12.8
Approach LOS	F	F		

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	3	1222	49	146	234	4	0	0	77	0	0	0
Future Volume (vph)	3	1222	49	146	234	4	0	0	77	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1328	53	159	254	4	0	0	84	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	3	1381	159	258	0	84	0
Volume Left (vph)	3	0	159	0	0	0	0
Volume Right (vph)	0	53	0	4	0	84	0
Hadj (s)	0.53	0.01	0.53	0.02	0.00	-0.67	0.00
Departure Headway (s)	5.8	5.2	5.9	5.4	7.0	6.3	7.2
Degree Utilization, x	0.00	2.01	0.26	0.39	0.00	0.15	0.00
Capacity (veh/h)	608	697	600	658	505	543	480
Control Delay (s)	7.6	471.9	9.8	10.5	8.8	9.2	10.2
Approach Delay (s)	470.9		10.2		9.2		0.0
Approach LOS	F		B		A		A

Intersection Summary				
Delay	348.4			
Level of Service	F			
Intersection Capacity Utilization	82.0%	ICU Level of Service	E	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1254	0	0	374	0	42
Future Volume (Veh/h)	1254	0	0	374	0	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1363	0	0	407	0	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1363		1566	1363
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1363		1566	1363
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	67
cM capacity (veh/h)			500		102	138

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1363	204	204	23	23
Volume Left	0	0	0	0	0
Volume Right	0	0	0	23	23
cSH	1700	1700	1700	138	138
Volume to Capacity	0.80	0.12	0.12	0.17	0.17
Queue Length 95th (ft)	0	0	0	14	14
Control Delay (s)	0.0	0.0	0.0	36.3	36.3
Lane LOS				E	E
Approach Delay (s)	0.0	0.0		36.3	
Approach LOS				E	

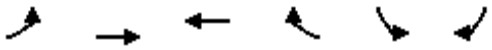
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1273	3	24	381	6	26
Future Volume (Veh/h)	1273	3	24	381	6	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1384	3	26	414	7	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1387		1644	1386
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1387		1644	1386
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		92	79
cM capacity (veh/h)			490		86	133

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1387	164	276	7	28
Volume Left	0	26	0	7	0
Volume Right	3	0	0	0	28
cSH	1700	490	1700	86	133
Volume to Capacity	0.82	0.05	0.16	0.08	0.21
Queue Length 95th (ft)	0	4	0	7	19
Control Delay (s)	0.0	2.6	0.0	50.8	39.2
Lane LOS		A		F	E
Approach Delay (s)	0.0	1.0		41.5	
Approach LOS				E	

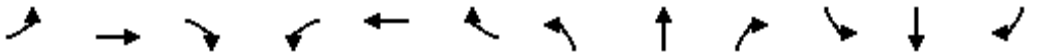
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	16	45	817	136	9
Future Volume (Veh/h)	8	16	45	817	136	9
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	17	49	888	148	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	326	301	306	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	301	306	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	91	97	91	18	91	
cM capacity (veh/h)	99	556	552	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	26	49	888	158
Volume Left	9	0	0	148
Volume Right	0	0	888	10
cSH	214	552	1085	1623
Volume to Capacity	0.12	0.09	0.82	0.09
Queue Length 95th (ft)	10	7	243	8
Control Delay (s)	24.2	12.2	21.2	7.0
Lane LOS	C	B	C	A
Approach Delay (s)	24.2	20.8		7.0
Approach LOS	C	C		

Intersection Summary			
Average Delay	18.9		
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	205	32	135	527	0	31	0	142	0	0	0
Future Volume (vph)	0	205	32	135	527	0	31	0	142	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	223	35	147	573	0	34	0	154	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	258	147	573	34	154	0
Volume Left (vph)	0	0	147	0	34	0	0
Volume Right (vph)	0	35	0	0	0	154	0
Hadj (s)	0.00	-0.06	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.0	5.9	6.0	5.5	7.4	6.2	7.3
Degree Utilization, x	0.00	0.42	0.24	0.87	0.07	0.27	0.00
Capacity (veh/h)	591	587	584	648	462	549	467
Control Delay (s)	7.8	12.0	9.7	33.0	9.8	10.2	10.3
Approach Delay (s)	12.0		28.3		10.2		0.0
Approach LOS	B		D		B		A

Intersection Summary				
Delay	21.7			
Level of Service	C			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	172	0	0	762	0	10
Future Volume (Veh/h)	172	0	0	762	0	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	187	0	0	828	0	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			187		601	187
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			187		601	187
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1385		432	823

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	187	414	414	6	6
Volume Left	0	0	0	0	0
Volume Right	0	0	0	6	6
cSH	1700	1700	1700	823	823
Volume to Capacity	0.11	0.24	0.24	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	9.4	9.4
Lane LOS				A	A
Approach Delay (s)	0.0	0.0		9.4	
Approach LOS				A	

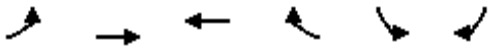
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	182	1	1	761	1	5
Future Volume (Veh/h)	182	1	1	761	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	198	1	1	827	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			199		614	198
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			199		614	198
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1371		423	809

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	199	277	551	1	5
Volume Left	0	1	0	1	0
Volume Right	1	0	0	0	5
cSH	1700	1371	1700	423	809
Volume to Capacity	0.12	0.00	0.32	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	13.5	9.5
Lane LOS		A		B	A
Approach Delay (s)	0.0	0.0		10.2	
Approach LOS				B	

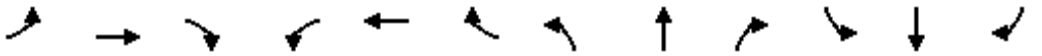
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	29	36	551	197	8
Future Volume (Veh/h)	13	29	36	551	197	8
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	32	39	599	214	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	452	432	437	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	452	432	437	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	93	93	91	45	87	
cM capacity (veh/h)	195	448	445	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	46	39	599	223
Volume Left	14	0	0	214
Volume Right	0	0	599	9
cSH	321	445	1085	1623
Volume to Capacity	0.14	0.09	0.55	0.13
Queue Length 95th (ft)	12	7	87	11
Control Delay (s)	18.1	13.9	12.3	7.3
Lane LOS	C	B	B	A
Approach Delay (s)	18.1	12.4		7.3
Approach LOS	C	B		

Intersection Summary			
Average Delay	11.4		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	205	32	135	527	0	31	0	142	0	0	0
Future Volume (vph)	0	205	32	135	527	0	31	0	142	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	223	35	147	573	0	34	0	154	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	258	147	573	34	154	0
Volume Left (vph)	0	0	147	0	34	0	0
Volume Right (vph)	0	35	0	0	0	154	0
Hadj (s)	0.00	-0.06	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.0	5.9	6.0	5.5	7.4	6.2	7.3
Degree Utilization, x	0.00	0.42	0.24	0.87	0.07	0.27	0.00
Capacity (veh/h)	591	587	584	648	462	549	467
Control Delay (s)	7.8	12.0	9.7	33.0	9.8	10.2	10.3
Approach Delay (s)	12.0		28.3		10.2		0.0
Approach LOS	B		D		B		A

Intersection Summary				
Delay	21.7			
Level of Service	C			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	404	0	0	599	0	9
Future Volume (Veh/h)	404	0	0	599	0	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	439	0	0	651	0	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			439		764	439
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			439		764	439
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1117		340	566

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	439	326	326	5	5
Volume Left	0	0	0	0	0
Volume Right	0	0	0	5	5
cSH	1700	1700	1700	566	566
Volume to Capacity	0.26	0.19	0.19	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	11.4	11.4
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		11.4	
Approach LOS				B	

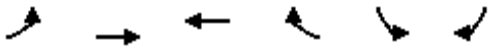
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	412	1	1	591	8	3
Future Volume (Veh/h)	412	1	1	591	8	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	448	1	1	642	9	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			449		772	448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			449		772	448
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	99
cM capacity (veh/h)			1108		336	558

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	449	215	428	9	3
Volume Left	0	1	0	9	0
Volume Right	1	0	0	0	3
cSH	1700	1108	1700	336	558
Volume to Capacity	0.26	0.00	0.25	0.03	0.01
Queue Length 95th (ft)	0	0	0	2	0
Control Delay (s)	0.0	0.0	0.0	16.0	11.5
Lane LOS		A		C	B
Approach Delay (s)	0.0	0.0		14.9	
Approach LOS				B	

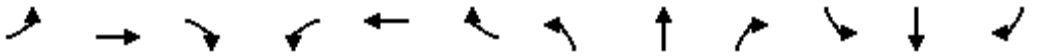
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	37	10	143	1095	9
Future Volume (Veh/h)	3	37	10	143	1095	9
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	40	11	155	1190	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2390	2385	2390	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2390	2385	2390	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	0	0	0	86	27	
cM capacity (veh/h)	0	9	9	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	43	11	155	1200
Volume Left	3	0	0	1190
Volume Right	0	0	155	10
cSH	0	9	1085	1623
Volume to Capacity	Err	1.22	0.14	0.73
Queue Length 95th (ft)	Err	54	12	182
Control Delay (s)	Err	921.9	8.9	13.0
Lane LOS	F	F	A	B
Approach Delay (s)	Err	69.4		13.0
Approach LOS	F	F		

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	3	1222	62	184	237	4	4	0	96	0	0	0
Future Volume (vph)	3	1222	62	184	237	4	4	0	96	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1328	67	200	258	4	4	0	104	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	3	1395	200	262	4	104	0
Volume Left (vph)	3	0	200	0	4	0	0
Volume Right (vph)	0	67	0	4	0	104	0
Hadj (s)	0.53	0.00	0.53	0.02	0.53	-0.67	0.00
Departure Headway (s)	5.9	5.4	6.0	5.5	7.6	6.4	7.3
Degree Utilization, x	0.00	2.09	0.33	0.40	0.01	0.19	0.00
Capacity (veh/h)	580	679	591	646	455	539	476
Control Delay (s)	7.8	507.2	10.8	10.9	9.5	9.7	10.3
Approach Delay (s)	506.1		10.8		9.7		0.0
Approach LOS	F		B		A		A

Intersection Summary				
Delay	362.6			
Level of Service	F			
Intersection Capacity Utilization	91.6%	ICU Level of Service	F	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1273	0	0	415	0	49
Future Volume (Veh/h)	1273	0	0	415	0	49
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1384	0	0	451	0	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1384		1610	1384
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1384		1610	1384
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	60
cM capacity (veh/h)			491		95	133

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1384	226	226	26	26
Volume Left	0	0	0	0	0
Volume Right	0	0	0	26	26
cSH	1700	1700	1700	133	133
Volume to Capacity	0.81	0.13	0.13	0.20	0.20
Queue Length 95th (ft)	0	0	0	18	18
Control Delay (s)	0.0	0.0	0.0	38.6	38.6
Lane LOS				E	E
Approach Delay (s)	0.0	0.0		38.6	
Approach LOS				E	

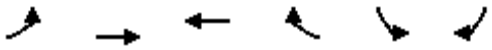
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1299	3	24	419	9	34
Future Volume (Veh/h)	1299	3	24	419	9	34
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1412	3	26	455	10	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1415		1693	1414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1415		1693	1414
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		87	71
cM capacity (veh/h)			478		79	127

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1415	178	303	10	37
Volume Left	0	26	0	10	0
Volume Right	3	0	0	0	37
cSH	1700	478	1700	79	127
Volume to Capacity	0.83	0.05	0.18	0.13	0.29
Queue Length 95th (ft)	0	4	0	10	28
Control Delay (s)	0.0	2.6	0.0	56.8	44.5
Lane LOS		A		F	E
Approach Delay (s)	0.0	0.9		47.1	
Approach LOS				E	

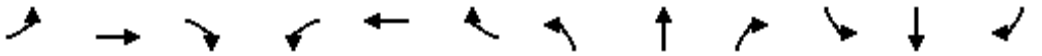
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	16	45	819	139	9
Future Volume (Veh/h)	8	16	45	819	139	9
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	17	49	890	151	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	332	307	312	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	332	307	312	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	91	97	91	18	91	
cM capacity (veh/h)	97	550	547	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	26	49	890	161
Volume Left	9	0	0	151
Volume Right	0	0	890	10
cSH	210	547	1085	1623
Volume to Capacity	0.12	0.09	0.82	0.09
Queue Length 95th (ft)	10	7	244	8
Control Delay (s)	24.6	12.2	21.4	7.0
Lane LOS	C	B	C	A
Approach Delay (s)	24.6	20.9		7.0
Approach LOS	C	C		

Intersection Summary			
Average Delay	19.0		
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	205	35	144	528	0	32	0	148	0	0	0
Future Volume (vph)	0	205	35	144	528	0	32	0	148	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	223	38	157	574	0	35	0	161	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	261	157	574	35	161	0
Volume Left (vph)	0	0	157	0	35	0	0
Volume Right (vph)	0	38	0	0	0	161	0
Hadj (s)	0.00	-0.07	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.0	6.0	6.0	5.5	7.5	6.2	7.4
Degree Utilization, x	0.00	0.43	0.26	0.88	0.07	0.28	0.00
Capacity (veh/h)	586	582	580	644	461	548	464
Control Delay (s)	7.8	12.2	9.9	34.2	9.8	10.4	10.4
Approach Delay (s)	12.2		29.0		10.3		0.0
Approach LOS	B		D		B		A

Intersection Summary				
Delay	22.2			
Level of Service	C			
Intersection Capacity Utilization	44.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	178	0	0	772	0	13
Future Volume (Veh/h)	178	0	0	772	0	13
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	193	0	0	839	0	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			193		612	193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			193		612	193
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1378		425	816

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	193	420	420	7	7
Volume Left	0	0	0	0	0
Volume Right	0	0	0	7	7
cSH	1700	1700	1700	816	816
Volume to Capacity	0.11	0.25	0.25	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	9.5	9.5
Lane LOS				A	A
Approach Delay (s)	0.0	0.0		9.5	
Approach LOS				A	

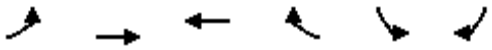
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	24.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	191	1	1	770	2	8
Future Volume (Veh/h)	191	1	1	770	2	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	208	1	1	837	2	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			209		629	208
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			209		629	208
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1359		414	797

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	209	280	558	2	9
Volume Left	0	1	0	2	0
Volume Right	1	0	0	0	9
cSH	1700	1359	1700	414	797
Volume to Capacity	0.12	0.00	0.33	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	13.7	9.6
Lane LOS		A		B	A
Approach Delay (s)	0.0	0.0		10.3	
Approach LOS				B	

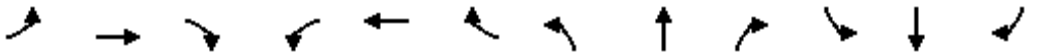
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	29	36	557	204	8
Future Volume (Veh/h)	13	29	36	557	204	8
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	32	39	605	222	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	468	448	453	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	468	448	453	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	92	93	91	44	86	
cM capacity (veh/h)	187	436	434	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	46	39	605	231
Volume Left	14	0	0	222
Volume Right	0	0	605	9
cSH	310	434	1085	1623
Volume to Capacity	0.15	0.09	0.56	0.14
Queue Length 95th (ft)	13	7	89	12
Control Delay (s)	18.6	14.1	12.4	7.3
Lane LOS	C	B	B	A
Approach Delay (s)	18.6	12.5		7.3
Approach LOS	C	B		

Intersection Summary			
Average Delay	11.5		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	205	39	157	529	0	34	0	157	0	0	0
Future Volume (vph)	0	205	39	157	529	0	34	0	157	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	223	42	171	575	0	37	0	171	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	265	171	575	37	171	0
Volume Left (vph)	0	0	171	0	37	0	0
Volume Right (vph)	0	42	0	0	0	171	0
Hadj (s)	0.00	-0.08	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.1	6.0	6.1	5.6	7.5	6.3	7.5
Degree Utilization, x	0.00	0.44	0.29	0.89	0.08	0.30	0.00
Capacity (veh/h)	579	574	575	638	460	546	460
Control Delay (s)	7.9	12.6	10.3	36.0	9.9	10.8	10.5
Approach Delay (s)	12.6		30.1		10.6		0.0
Approach LOS	B		D		B		A

Intersection Summary				
Delay	23.0			
Level of Service	C			
Intersection Capacity Utilization	44.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	419	0	0	623	0	15
Future Volume (Veh/h)	419	0	0	623	0	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	455	0	0	677	0	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			455		794	455
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			455		794	455
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1102		326	552

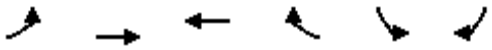
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	455	338	338	8	8
Volume Left	0	0	0	0	0
Volume Right	0	0	0	8	8
cSH	1700	1700	1700	552	552
Volume to Capacity	0.27	0.20	0.20	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	11.6	11.6
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		11.6	
Approach LOS				B	

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	433	1	1	613	10	9
Future Volume (Veh/h)	433	1	1	613	10	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	471	1	1	666	11	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			472		806	472
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			472		806	472
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	98
cM capacity (veh/h)			1086		319	539

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	472	223	444	11	10
Volume Left	0	1	0	11	0
Volume Right	1	0	0	0	10
cSH	1700	1086	1700	319	539
Volume to Capacity	0.28	0.00	0.26	0.03	0.02
Queue Length 95th (ft)	0	0	0	3	1
Control Delay (s)	0.0	0.0	0.0	16.7	11.8
Lane LOS		A		C	B
Approach Delay (s)	0.0	0.0		14.4	
Approach LOS				B	

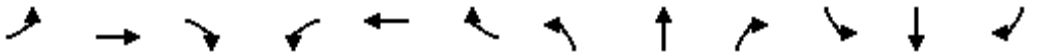
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	39	11	149	1161	10
Future Volume (Veh/h)	3	39	11	149	1161	10
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	42	12	162	1262	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2536	2530	2535	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2536	2530	2535	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	0	0	0	85	22	
cM capacity (veh/h)	0	6	6	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	45	12	162	1273
Volume Left	3	0	0	1262
Volume Right	0	0	162	11
cSH	0	6	1085	1623
Volume to Capacity	Err	1.97	0.15	0.78
Queue Length 95th (ft)	Err	63	13	219
Control Delay (s)	Err	1574.3	8.9	14.4
Lane LOS	F	F	A	B
Approach Delay (s)	Err	116.9		14.4
Approach LOS	F	F		

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	3	1309	52	155	253	4	0	0	82	0	0	0
Future Volume (vph)	3	1309	52	155	253	4	0	0	82	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1423	57	168	275	4	0	0	89	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	3	1480	168	279	0	89	0
Volume Left (vph)	3	0	168	0	0	0	0
Volume Right (vph)	0	57	0	4	0	89	0
Hadj (s)	0.53	0.01	0.53	0.02	0.00	-0.67	0.00
Departure Headway (s)	5.8	5.3	5.9	5.4	7.0	6.4	7.3
Degree Utilization, x	0.00	2.18	0.28	0.42	0.00	0.16	0.00
Capacity (veh/h)	601	691	598	655	502	539	475
Control Delay (s)	7.7	547.3	10.0	11.1	8.8	9.4	10.3
Approach Delay (s)	546.2		10.7		9.4		0.0
Approach LOS	F		B		A		A

Intersection Summary				
Delay	404.0			
Level of Service	F			
Intersection Capacity Utilization	87.3%	ICU Level of Service	E	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1343	0	0	402	0	45
Future Volume (Veh/h)	1343	0	0	402	0	45
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1460	0	0	437	0	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1460		1678	1460
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1460		1678	1460
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	59
cM capacity (veh/h)			459		86	118

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1460	218	218	24	24
Volume Left	0	0	0	0	0
Volume Right	0	0	0	24	24
cSH	1700	1700	1700	118	118
Volume to Capacity	0.86	0.13	0.13	0.21	0.21
Queue Length 95th (ft)	0	0	0	18	18
Control Delay (s)	0.0	0.0	0.0	43.2	43.2
Lane LOS				E	E
Approach Delay (s)	0.0	0.0		43.2	
Approach LOS				E	

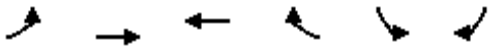
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1363	3	25	409	6	28
Future Volume (Veh/h)	1363	3	25	409	6	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1482	3	27	445	7	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1485		1760	1484
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1485		1760	1484
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		90	74
cM capacity (veh/h)			449		71	114

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1485	175	297	7	30
Volume Left	0	27	0	7	0
Volume Right	3	0	0	0	30
cSH	1700	449	1700	71	114
Volume to Capacity	0.87	0.06	0.17	0.10	0.26
Queue Length 95th (ft)	0	5	0	8	25
Control Delay (s)	0.0	2.8	0.0	61.1	47.5
Lane LOS		A		F	E
Approach Delay (s)	0.0	1.1		50.1	
Approach LOS				F	

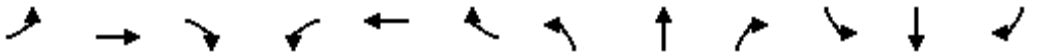
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	17	48	889	163	10
Future Volume (Veh/h)	8	17	48	889	163	10
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	18	52	966	177	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	386	360	365	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	386	360	365	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	83	96	90	11	89	
cM capacity (veh/h)	53	505	502	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	27	52	966	188
Volume Left	9	0	0	177
Volume Right	0	0	966	11
cSH	132	502	1085	1623
Volume to Capacity	0.21	0.10	0.89	0.11
Queue Length 95th (ft)	18	9	325	9
Control Delay (s)	39.3	13.0	27.7	7.1
Lane LOS	E	B	D	A
Approach Delay (s)	39.3	26.9		7.1
Approach LOS	E	D		

Intersection Summary			
Average Delay	24.2		
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	237	34	143	581	0	33	0	151	0	0	0
Future Volume (vph)	0	237	34	143	581	0	33	0	151	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	258	37	155	632	0	36	0	164	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	295	155	632	36	164	0
Volume Left (vph)	0	0	155	0	36	0	0
Volume Right (vph)	0	37	0	0	0	164	0
Hadj (s)	0.00	-0.05	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.2	6.1	6.1	5.6	7.7	6.5	7.7
Degree Utilization, x	0.00	0.50	0.26	0.98	0.08	0.29	0.00
Capacity (veh/h)	584	584	572	632	456	541	454
Control Delay (s)	8.0	13.8	10.1	53.9	10.1	10.9	10.7
Approach Delay (s)	13.8		45.3		10.8		0.0
Approach LOS	B		E		B		A

Intersection Summary				
Delay	32.7			
Level of Service	D			
Intersection Capacity Utilization	47.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	202	0	0	831	0	11
Future Volume (Veh/h)	202	0	0	831	0	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	220	0	0	903	0	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			220		672	220
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			220		672	220
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1346		389	784

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	220	452	452	6	6
Volume Left	0	0	0	0	0
Volume Right	0	0	0	6	6
cSH	1700	1700	1700	784	784
Volume to Capacity	0.13	0.27	0.27	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	9.6	9.6
Lane LOS				A	A
Approach Delay (s)	0.0	0.0		9.6	
Approach LOS				A	

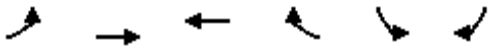
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	212	1	1	830	1	5
Future Volume (Veh/h)	212	1	1	830	1	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	230	1	1	902	1	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			231		684	230
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			231		684	230
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1334		382	772

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	231	302	601	1	5
Volume Left	0	1	0	1	0
Volume Right	1	0	0	0	5
cSH	1700	1334	1700	382	772
Volume to Capacity	0.14	0.00	0.35	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	14.4	9.7
Lane LOS		A		B	A
Approach Delay (s)	0.0	0.0		10.5	
Approach LOS				B	

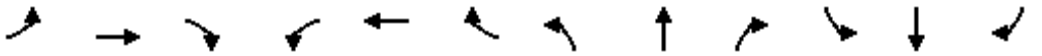
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	31	38	590	216	8
Future Volume (Veh/h)	14	31	38	590	216	8
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	34	41	641	235	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	495	474	479	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	495	474	479	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	91	92	90	41	86	
cM capacity (veh/h)	163	418	415	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	49	41	641	244
Volume Left	15	0	0	235
Volume Right	0	0	641	9
cSH	283	415	1085	1623
Volume to Capacity	0.17	0.10	0.59	0.14
Queue Length 95th (ft)	15	8	101	13
Control Delay (s)	20.4	14.6	13.0	7.4
Lane LOS	C	B	B	A
Approach Delay (s)	20.4	13.1		7.4
Approach LOS	C	B		

Intersection Summary			
Average Delay	12.0		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	225	34	143	564	0	33	0	151	0	0	0
Future Volume (vph)	0	225	34	143	564	0	33	0	151	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	245	37	155	613	0	36	0	164	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	282	155	613	36	164	0
Volume Left (vph)	0	0	155	0	36	0	0
Volume Right (vph)	0	37	0	0	0	164	0
Hadj (s)	0.00	-0.06	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.1	6.1	6.1	5.6	7.6	6.4	7.6
Degree Utilization, x	0.00	0.47	0.26	0.95	0.08	0.29	0.00
Capacity (veh/h)	584	583	575	641	458	544	458
Control Delay (s)	7.9	13.2	10.0	46.3	10.0	10.8	10.6
Approach Delay (s)	13.2		39.0		10.7		0.0
Approach LOS	B		E		B		A

Intersection Summary				
Delay	28.6			
Level of Service	D			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	436	0	0	641	0	10
Future Volume (Veh/h)	436	0	0	641	0	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	474	0	0	697	0	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			474		822	474
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			474		822	474
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1084		312	537

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	474	348	348	6	6
Volume Left	0	0	0	0	0
Volume Right	0	0	0	6	6
cSH	1700	1700	1700	537	537
Volume to Capacity	0.28	0.20	0.20	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	11.8	11.8
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		11.8	
Approach LOS				B	

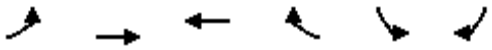
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	444	1	1	632	8	3
Future Volume (Veh/h)	444	1	1	632	8	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	483	1	1	687	9	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			484		829	484
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			484		829	484
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	99
cM capacity (veh/h)			1075		309	529

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	484	230	458	9	3
Volume Left	0	1	0	9	0
Volume Right	1	0	0	0	3
cSH	1700	1075	1700	309	529
Volume to Capacity	0.28	0.00	0.27	0.03	0.01
Queue Length 95th (ft)	0	0	0	2	0
Control Delay (s)	0.0	0.0	0.0	17.0	11.8
Lane LOS		A		C	B
Approach Delay (s)	0.0	0.0		15.7	
Approach LOS				C	

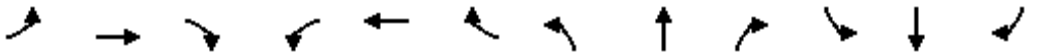
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	39	11	156	1174	10
Future Volume (Veh/h)	3	39	11	156	1174	10
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	42	12	170	1276	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2564	2558	2563	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2564	2558	2563	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	0	0	0	84	21	
cM capacity (veh/h)	0	6	6	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	45	12	170	1287
Volume Left	3	0	0	1276
Volume Right	0	0	170	11
cSH	0	6	1085	1623
Volume to Capacity	Err	2.14	0.16	0.79
Queue Length 95th (ft)	Err	64	14	228
Control Delay (s)	Err	1731.8	8.9	14.8
Lane LOS	F	F	A	B
Approach Delay (s)	Err	122.5		14.8
Approach LOS	F	F		

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	3	1309	65	193	256	4	4	0	101	0	0	0
Future Volume (vph)	3	1309	65	193	256	4	4	0	101	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1423	71	210	278	4	4	0	110	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	3	1494	210	282	4	110	0
Volume Left (vph)	3	0	210	0	4	0	0
Volume Right (vph)	0	71	0	4	0	110	0
Hadj (s)	0.53	0.00	0.53	0.02	0.53	-0.67	0.00
Departure Headway (s)	6.0	5.5	6.0	5.5	7.6	6.5	7.4
Degree Utilization, x	0.00	2.26	0.35	0.43	0.01	0.20	0.00
Capacity (veh/h)	582	662	588	642	453	535	471
Control Delay (s)	7.8	585.9	11.1	11.5	9.5	9.8	10.4
Approach Delay (s)	584.8		11.3		9.8		0.0
Approach LOS	F		B		A		A

Intersection Summary			
Delay	419.4		
Level of Service	F		
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1362	0	0	443	0	52
Future Volume (Veh/h)	1362	0	0	443	0	52
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1480	0	0	482	0	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1480		1721	1480
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1480		1721	1480
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	50
cM capacity (veh/h)			451		80	115

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1480	241	241	28	28
Volume Left	0	0	0	0	0
Volume Right	0	0	0	28	28
cSH	1700	1700	1700	115	115
Volume to Capacity	0.87	0.14	0.14	0.25	0.25
Queue Length 95th (ft)	0	0	0	23	23
Control Delay (s)	0.0	0.0	0.0	46.5	46.5
Lane LOS				E	E
Approach Delay (s)	0.0	0.0		46.5	
Approach LOS				E	

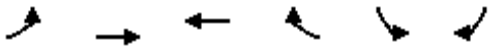
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1389	3	25	447	9	36
Future Volume (Veh/h)	1389	3	25	447	9	36
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1510	3	27	486	10	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1513		1808	1512
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1513		1808	1512
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		85	64
cM capacity (veh/h)			438		66	109

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1513	189	324	10	39
Volume Left	0	27	0	10	0
Volume Right	3	0	0	0	39
cSH	1700	438	1700	66	109
Volume to Capacity	0.89	0.06	0.19	0.15	0.36
Queue Length 95th (ft)	0	5	0	13	36
Control Delay (s)	0.0	2.8	0.0	69.2	55.3
Lane LOS		A		F	F
Approach Delay (s)	0.0	1.0		58.2	
Approach LOS				F	

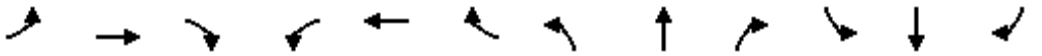
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	17	48	891	166	10
Future Volume (Veh/h)	8	17	48	891	166	10
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	18	52	968	180	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	392	366	371	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	392	366	371	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	83	96	90	11	89	
cM capacity (veh/h)	52	500	497	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	27	52	968	191
Volume Left	9	0	0	180
Volume Right	0	0	968	11
cSH	128	497	1085	1623
Volume to Capacity	0.21	0.10	0.89	0.11
Queue Length 95th (ft)	19	9	327	9
Control Delay (s)	40.4	13.1	27.9	7.1
Lane LOS	E	B	D	A
Approach Delay (s)	40.4	27.1		7.1
Approach LOS	E	D		

Intersection Summary			
Average Delay	24.3		
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	237	37	152	582	0	34	0	157	0	0	0
Future Volume (vph)	0	237	37	152	582	0	34	0	157	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	258	40	165	633	0	37	0	171	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	298	165	633	37	171	0
Volume Left (vph)	0	0	165	0	37	0	0
Volume Right (vph)	0	40	0	0	0	171	0
Hadj (s)	0.00	-0.06	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.2	6.2	6.2	5.6	7.7	6.5	7.7
Degree Utilization, x	0.00	0.51	0.28	0.99	0.08	0.31	0.00
Capacity (veh/h)	579	580	569	633	455	540	451
Control Delay (s)	8.0	14.2	10.4	56.2	10.2	11.2	10.7
Approach Delay (s)	14.2		46.8		11.0		0.0
Approach LOS	B		E		B		A

Intersection Summary				
Delay	33.6			
Level of Service	D			
Intersection Capacity Utilization	47.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	208	0	0	841	0	14
Future Volume (Veh/h)	208	0	0	841	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	226	0	0	914	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			226		683	226
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			226		683	226
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1340		383	777

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	226	457	457	8	8
Volume Left	0	0	0	0	0
Volume Right	0	0	0	8	8
cSH	1700	1700	1700	777	777
Volume to Capacity	0.13	0.27	0.27	0.01	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	9.7	9.7
Lane LOS				A	A
Approach Delay (s)	0.0	0.0		9.7	
Approach LOS				A	

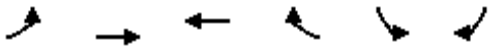
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	221	1	1	839	2	8
Future Volume (Veh/h)	221	1	1	839	2	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	240	1	1	912	2	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			241		698	240
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			241		698	240
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1323		374	760

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	241	305	608	2	9
Volume Left	0	1	0	2	0
Volume Right	1	0	0	0	9
cSH	1700	1323	1700	374	760
Volume to Capacity	0.14	0.00	0.36	0.01	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	14.7	9.8
Lane LOS		A		B	A
Approach Delay (s)	0.0	0.0		10.7	
Approach LOS				B	

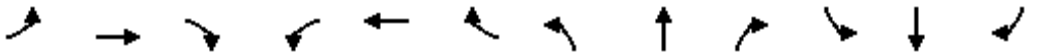
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	31	38	596	223	8
Future Volume (Veh/h)	14	31	38	596	223	8
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	34	41	648	242	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	509	488	493	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	509	488	493	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	90	92	90	40	85	
cM capacity (veh/h)	157	408	406	1085	1623	

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	49	41	648	251
Volume Left	15	0	0	242
Volume Right	0	0	648	9
cSH	274	406	1085	1623
Volume to Capacity	0.18	0.10	0.60	0.15
Queue Length 95th (ft)	16	8	103	13
Control Delay (s)	21.0	14.9	13.1	7.4
Lane LOS	C	B	B	A
Approach Delay (s)	21.0	13.2		7.4
Approach LOS	C	B		

Intersection Summary			
Average Delay	12.1		
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Traffic Volume (vph)	0	225	41	165	566	0	36	0	166	0	0	0
Future Volume (vph)	0	225	41	165	566	0	36	0	166	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	245	45	179	615	0	39	0	180	0	0	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	0	290	179	615	39	180	0
Volume Left (vph)	0	0	179	0	39	0	0
Volume Right (vph)	0	45	0	0	0	180	0
Hadj (s)	0.00	-0.07	0.53	0.03	0.53	-0.67	0.00
Departure Headway (s)	6.3	6.2	6.2	5.7	7.7	6.5	7.7
Degree Utilization, x	0.00	0.50	0.31	0.97	0.08	0.32	0.00
Capacity (veh/h)	573	574	566	615	455	541	450
Control Delay (s)	8.1	14.0	10.7	51.0	10.2	11.3	10.7
Approach Delay (s)	14.0		41.9		11.1		0.0
Approach LOS	B		E		B		A

Intersection Summary				
Delay	30.5			
Level of Service	D			
Intersection Capacity Utilization	46.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	451	0	0	665	0	16
Future Volume (Veh/h)	451	0	0	665	0	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	490	0	0	723	0	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			490		852	490
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			490		852	490
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1070		299	524

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	490	362	362	8	8
Volume Left	0	0	0	0	0
Volume Right	0	0	0	8	8
cSH	1700	1700	1700	524	524
Volume to Capacity	0.29	0.21	0.21	0.02	0.02
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	12.0	12.0
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		12.0	
Approach LOS				B	

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	465	1	1	654	10	9
Future Volume (Veh/h)	465	1	1	654	10	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	505	1	1	711	11	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			506		863	506
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			506		863	506
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	98
cM capacity (veh/h)			1055		294	512

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	506	238	474	11	10
Volume Left	0	1	0	11	0
Volume Right	1	0	0	0	10
cSH	1700	1055	1700	294	512
Volume to Capacity	0.30	0.00	0.28	0.04	0.02
Queue Length 95th (ft)	0	0	0	3	1
Control Delay (s)	0.0	0.0	0.0	17.7	12.2
Lane LOS		A		C	B
Approach Delay (s)	0.0	0.0		15.1	
Approach LOS				C	

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix F

Student Zip Code Data

1		90004		Marshall-Green	Culla	
2		90005		Grubbs	Devon	
3		90005		Rubinson	Oz	
4		90005		Schneider	Jacquelyn	
5		90005		Schneider	Michael	
	90005 Count		4			4
6		90008		Cespedes	Maceo	
	90008 Count		1			1
7		90019		Cercado	Sienna	
	90019 Count		1			1
8		90024		Amin	Leyna	
9		90024		Davidov	Brandon	
10		90024		Davidov	Mischa	
11		90024		Kim	Avery	
12		90024		Lee	Sydney	
13		90024		Malkan	Emily	
14		90024		Marley	Devin	
15		90024		Maslow	London	
16		90024		Maslow	Sydney	
17		90024		Moon	Ethan	
18		90024		Rhew	Amelie	
19		90024		Rubin	Adam	
20		90024		Saito	Yuma	
21		90024		Sampath	Risha	
22		90024		Sina	Lily	
	90024 Count		15			15
23		90025		Brown	Conor	
24		90025		Brown	Meadbh	
25		90025		Harkin-Goodrich	Daisy	
26		90025		Harkin-Goodrich	Luke	
27		90025		Harkin-Goodrich	McQuaid	
28		90025		Newman	Charlotte	
	90025 Count		6			6
29		90026		Gubel	Olivia	
30		90026		von Firley-Butler	Stuart	
	90026 Count		2			2
31		90027		Brady	Benjamin	
32		90027		Gaha	Eva	
	90027 Count		2			2
33		90034		Adeyeba	Jordan	
34		90034		Esparza Nazemi	Necali	
35		90034		Esparza Nazemi	Santiago	
36		90034		Shayegan	Anusha	
37		90034		Shayegan	Turandot	
	90034 Count		5			5
38		90035		Brown	Sarah	
39		90035		Stambouli	Amelie	

40		90035		Stambouli	Lily	
	90035 Count		3			3
41		90036		Farkas	Kaitlynn	
42		90036		Farkas	Noah	
43		90036		Freeman	Julian	
44		90036		O'Brien	Zoe	
45		90036		Yoon	Eric	
	90036 Count		5			5
46		90043		Mathews	Jaiden	
47		90043		Mathews	Terence	
48		90043		Miguda-Armstead	Phoenix	
49		90043		Rogers	Devyn	
50		90043		Watkins	Ella	
	90043 Count		5			5
51		90045		Unatin	David	
	90045 Count		1			1
52		90046		Gargi	Vir	
53		90046		Goetsch	Boon	
54		90046		McDougall	Delaney	
55		90046		Mojtabai-Townsend	Cyrus	
56		90046		Spence	Layla	
57		90046		Tepper	Mayan	
	90046 Count		6			6
58		90048		O'Connor	Alexander	
59		90048		O'Connor	Lucas	
	90048 Count		2			2
60		90049		Amid	Diba	
61		90049		Beckman	Marlo	
62		90049		Edelstein	Tyler	
63		90049		Fisher	Russell	
64		90049		Goldsmith	Gavin	
65		90049		Goldstein	Kyra	
66		90049		Haley	Asha	
67		90049		Haley	Keira	
68		90049		Hancock	Phebe	
69		90049		Hong	Wesley	
70		90049		Kim	Alyssa	
71		90049		Kranz	Noah Sky	
72		90049		Liu	Elissa	
73		90049		Luhnow	August	
74		90049		Luhnow	Edwin	
75		90049		Maynard	Arden	
76		90049		Maynard	Harper	
77		90049		Maynard	Morgan	
78		90049		McDermott	Kendall	
79		90049		McDermott	Lachlan	
80		90049		Milam	Madeline	

81		90049		Neirick	Chiara	
82		90049		Neirick	Pierce	
83		90049		Phillips	Hudson	
84		90049		Phillips	Olivia	
85		90049		Rastegar	Soraya	
86		90049		Rosen	Robert	
87		90049		Rosen	William	
88		90049		Schwarzman	Lucy	
89		90049		Sherwood	Charlie	
90		90049		Sherwood	William	
91		90049		Sinha	Navya	
92		90049		Wuo	Dylan	
93		90049		Wuo	Sabrina	
	90049 Count		34			34
94		90064		Abrams	Adelaide	
95		90064		Berman	Reed	
96		90064		Frain	Sukari	
97		90064		Kajino	Takamaro	
98		90064		Lee	Mason	
99		90064		Lee	Vincent	
100		90064		McLeod	Audrey	
101		90064		Paris	Jack	
102		90064		Portley	Calvin	
103		90064		Sasaki	Shelbi	
104		90064		Sima	Aman	
105		90064		Sima	Dagem	
106		90064		Spurling	Kiran	
107		90064		Spurling	Nischal	
108		90064		Yassinger	Justin	
109		90064		Zachary	Joel	
	90064 Count		16			16
110		90065		Rusmeepongskul	Maximo	
	90065 Count		1			1
111		90066		Marcus	Zoe	
112		90066		Ozturk	Gemma	
	90066 Count		2			2
113		90067		Shlimovich	Elizabeth	
114		90067		Shlimovich	Victoria	
	90067 Count		2			2
115		90068		Andrews	Madeline	
116		90068		Finn	Sienna	
117		90068		Kumar	Kyan	
118		90068		Kumar	Maddex	
119		90068		Langley	Hudson	
120		90068		Langley	Oliver	
121		90068		Weinberg	Benjamin	
	90068 Count		7			7

122		90069	Morgan	Lila	
	90069 Count	1			1
123		90077	Ahuja	Aiden	
124		90077	Ahuja	Alec	
125		90077	Bender	Misha	
126		90077	Brazell	Giovanna	
127		90077	Copeland	Danielle	
128		90077	Coyne	John	
129		90077	Coyne	Thomas Kelly	
130		90077	Daugherty	Jack	
131		90077	Daugherty	Sarah	
132		90077	Deshong	Aidan	
133		90077	Kay	Jordan	
134		90077	Narayan	Sabrina	
135		90077	Peace	James	
136		90077	Puck	Oliver	
137		90077	Rao	Inaya	
138		90077	Rhee	Jace	
139		90077	Shin	Philip	
140		90077	Weinerman	Julian	
141		90077	Yeh	Megan	
142		90077	Yeh	Preston	
	90077 Count	20			20
143		90210	Block	Molly	
144		90210	Davidoff	Evan	
145		90210	Davidoff	Ryan	
146		90210	Ferren	Kira	
147		90210	Gravori	Ashton	
148		90210	Gravori	Brandon	
149		90210	Gravori	Jason	
150		90210	Iyer	Anika	
151		90210	Iyer	Riya	
152		90210	Kang	Elizabeth	
153		90210	Lancer	Jacob	
154		90210	Lancer	Scarlett	
155		90210	Lancer	Sloan	
156		90210	Massey	Jacob	
157		90210	Massey	Joshua	
158		90210	Motakef	Aara	
159		90210	Motakef	Ryan	
160		90210	Ross	Kendra	
161		90210	Shabani	Peter	
162		90210	Shabani	Sophia	
163		90210	Tehrani	Deziree	
164		90210	Tehrani	Gianna	
165		90210	Wiczyk	Jacob	
166		90210	Wiczyk	Jesse	

167		90210		Wiczyk	Sloane	
168		90210		Youshaei	Connor	
169		90210		Youshaei	Madison	
	90210 Count		27			27
170		90211		Tooley	Dakota	
171		90211		Tooley	Grayson	
	90211 Count		2			2
172		90212		Passeri	Leonardo	
	90212 Count		1			1
173		90230		Sahi	Shreeya	
174		90230		Sahi	Viraj	
175		90230		Trueblood	Cameron	
176		90230		Trueblood	Dylan	
177		90230		Trueblood	Mason	
	90230 Count		5			5
178		90232		Hughes	Julianna	
	90232 Count		1			1
179		90254		Stewart	Atticus	
	90254 Count		1			1
180		90264		Weintraub	Coleman	
	90264 Count		1			1
181		90265		Friedlich	Isabelle	
182		90265		Zucker	Jonathan	
	90265 Count		2			2
183		90272		Collins	Marcus	
184		90272		Do	Otto	
185		90272		Enayati-Uzeta	Mina	
186		90272		Gavin	Alexander	
187		90272		Gavsie	Jade	
188		90272		Gavsie	Rex	
189		90272		Gavsie	Roman	
190		90272		Huang	Cara	
191		90272		Huang	Owen	
192		90272		Jimenez	Noah	
193		90272		Karamouzis	Eleni	
194		90272		Lee	Taryn	
195		90272		Moffitt	Milo	
196		90272		Peng	Victoria	
197		90272		Reed	Charlotte	
198		90272		Reed	Vivian	
199		90272		Shladovsky	Jonas	
200		90272		Simonds	Nathaniel	
201		90272		Uhls	Walker	
202		90272		Volokh	Samuel	
203		90272		Yang	Alexander	
204		90272		Yang	Luke	
205		90272		Zaidel	Lauren	

206		90272		Zaidel	Olivia	
207		90272		Zumbrunnen	Greta	
	90272 Count		25			25
208		90278		Wodynski	Sophia	
	90278 Count		1			1
209		90290		Ekholm	Aria	
210		90290		Ekholm	Drake	
	90290 Count		2			2
211		90291		Deer	August	
	90291 Count		1			1
212		90292		Schwartz	Isabel	
213		90292		Shapiro	Jonah	
	90292 Count		2			2
214		90402		Andrews	Katherine	
215		90402		Eidelman	Gabriel	
216		90402		Ekstrand	Alexander	
217		90402		Ekstrand	Karl	
218		90402		Ekstrand	Markus	
219		90402		Ekstrand	Monika	
220		90402		Ekstrand	Viktoria	
221		90402		Friedman	Eli	
222		90402		Goetz	Sheila	
223		90402		Kashper	Izadora	
224		90402		Kashper	Nathan	
225		90402		Kurgan	Andrew	
226		90402		Kurgan	Paul	
227		90402		Landecker	Casey	
228		90402		Nydes	Theo	
229		90402		Nydes	Zac	
230		90402		Pistor	Marcus	
231		90402		Primiani	Dominic	
232		90402		Robinov	Devan	
233		90402		Robinov	India	
234		90402		Spencer	Sophia	
235		90402		Steiglitz	Matthew	
236		90402		Washington	Austin	
	90402 Count		23			23
237		90403		Cheng	Katarina	
238		90403		Csato	Xavier	
239		90403		Jamet Kuhne	Avery	
240		90403		Trajanovich	Alexander	
241		90403		Trajanovich	Paul	
	90403 Count		5			5
242		90405		Barnavon	Joshua	
243		90405		Barnavon	Sarah	
244		90405		Greene	Graydon	
245		90405		Luna	Pablo	

246		90405		Pekar	Otis	
247		90405		Weeks Manjarres	Eames	
	90405 Count		6			6
248		91006		Taniguchi	Bryan	
	91006 Count		1			1
249		91011		Kim	Daniel	
	91011 Count		1			1
250		91030		Hayes	Arden	
	91030 Count		1			1
251		91104		Ledahl	Simon	
	91104 Count		1			1
252		91107		Villarama	Luke Francis	
	91107 Count		1			1
253		91108		Wang	Elizabeth	
	91108 Count		1			1
254		91302		Furst	Harrison	
255		91302		Johnson	Morgan	
256		91302		Stibel	Dennett	
257		91302		Stibel	Lincoln	
	91302 Count		4			4
258		91316		Chung	Olivia	
259		91316		Futterman	Jacob	
260		91316		Irfan	Aariz	
261		91316		Irfan	Amaan	
262		91316		Kumar	Dhilan	
263		91316		Osman	Levi	
264		91316		Rice	Max	
265		91316		Rosen	Brooks	
266		91316		Rosen	George	
267		91316		Wang	Meiruo	
268		91316		Wegge	Vivian	
269		91316		White	Lennox	
270		91316		Wolf	Madison	
271		91316		Yariv	Julia	
	91316 Count		14			14
272		91325		Goldrich	Daniella	
273		91325		Goldrich	Eva	
	91325 Count		2			2
274		91326		Diament	Joanna	
	91326 Count		1			1
275		91342		Orca	Jalen	
	91342 Count		1			1
276		91343		Carmon	Sydne	
	91343 Count		1			1
277		91356		Fenner	Aaron	
278		91356		Goodman	Sophia	
279		91356		Lake	William	

280		91356		Murray	Annabel	
281		91356		Murray	William	
	91356 Count		5			5
282		91364		Cohen	Naalah	
283		91364		McKeown	Parker	
284		91364		Rovenger	Maxwell	
	91364 Count		3			3
285		91377		Moore	William	
	91377 Count		1			1
286		91401		Oertel	Emerson	
287		91401		Willis	Ella	
	91401 Count		2			2
288		91403		Agahi	Celene	
289		91403		Bokin	Nikolai	
290		91403		Bowse	Brando	
291		91403		Buch	Samuel	
292		91403		Costache	Isabella	
293		91403		Costache	Sebastian	
294		91403		Fener	Jack	
295		91403		Fener	Sydney	
296		91403		Gould	Oliver	
297		91403		Lim	Brandon	
298		91403		Obreja	Rares	
299		91403		Zeltser	Joseph	
	91403 Count		12			12
300		91406		McBride	Myles	
	91406 Count		1			1
301		91411		Delot-Vilain	Arthur	
302		91411		Parekh	Neel	
303		91411		Parekh	Simone	
304		91411		Stobo	Lilly	
	91411 Count		4			4
305		91423		Brown	Clarissa	
306		91423		Dietrich	Breya	
307		91423		Ghassemieh	Dariush	
308		91423		Ghassemieh	Darya	
309		91423		Ghassemieh	Donya	
310		91423		Schaller	Madeleine	
311		91423		Schaller	Maximilian	
312		91423		Shek	Jocelyn	
313		91423		Washburn	Beatrice	
	91423 Count		9			9
314		91436		Ajmera	Nathan	
315		91436		Arnold	Nathaniel	
316		91436		Arnold	Vivianne	
317		91436		Belciano	Charlie	
318		91436		Belciano	Marco	

319		91436		Capanna	Sofia	
320		91436		Dadlani	Nicola	
321		91436		Demko	Mason	
322		91436		Eknoyan	Remy	
323		91436		Eknoyan	Vaughn	
324		91436		Fattahi	Arya	
325		91436		Fattahi	Ava	
326		91436		Gurudevan	Rishi	
327		91436		Moreno	Nathaniel	
328		91436		Moreno	Sofia	
329		91436		Morrell	Brandon	
330		91436		Morrell	Keira	
331		91436		Peterson	Abigail	
332		91436		Peterson	Evelyn	
333		91436		Peterson	Oliver	
334		91436		Rissman	Joaquin	
335		91436		Rissman	Mateo	
336		91436		Scoggins	Alexandra	
337		91436		Seitz-Shewmon	Sophia	
338		91436		Shurman	Sage	
339		91436		Stubbeman	Christian	
340		91436		Stubbeman	Sky	
	91436 Count		27			27
341		91501		Kirchmeier	Abigail	
	91501 Count		1			1
342		91505		Bell	Carter	
343		91505		Lee	Emerson	
344		91505		Lee	Genevieve	
	91505 Count		3			3
345		91601		Bryan	William	
	91601 Count		1			1
346		91602		Williams	Shiloh	
347		91602		Zelkin	Zachary	
	91602 Count		2			2
348		91604		Aramian	Madeline	
349		91604		Aramian	Victoria	
350		91604		Filus	Dashiell	
351		91604		Filus	Sasha	
352		91604		Fribourg	Chloe	
353		91604		Fribourg	Sophie	
354		91604		Fribourg	Zoe	
355		91604		Oh	Allyson	
356		91604		Oh	Katherine	
357		91604		Reynolds	Zoe	
358		91604		Sayana-Manchanda	Samaya	
359		91604		Seeman	Anne	
360		91604		Wiblin	Kelsey	

	91604 Count		13			13
361		91605		Kumar	Devan	
362		91605		Kumar	Saige	
	91605 Count		2			2
363		91607		Devati	Anamika	
	91607 Count		1			1
364		91611		Powers	Apollo	
	91611 Count		1			1
365		93065		Herbert	Riley	

Appendix G

Signal Warrant Worksheets

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

7. CALNEVA DRIVE & MULHOLLAND DRIVE

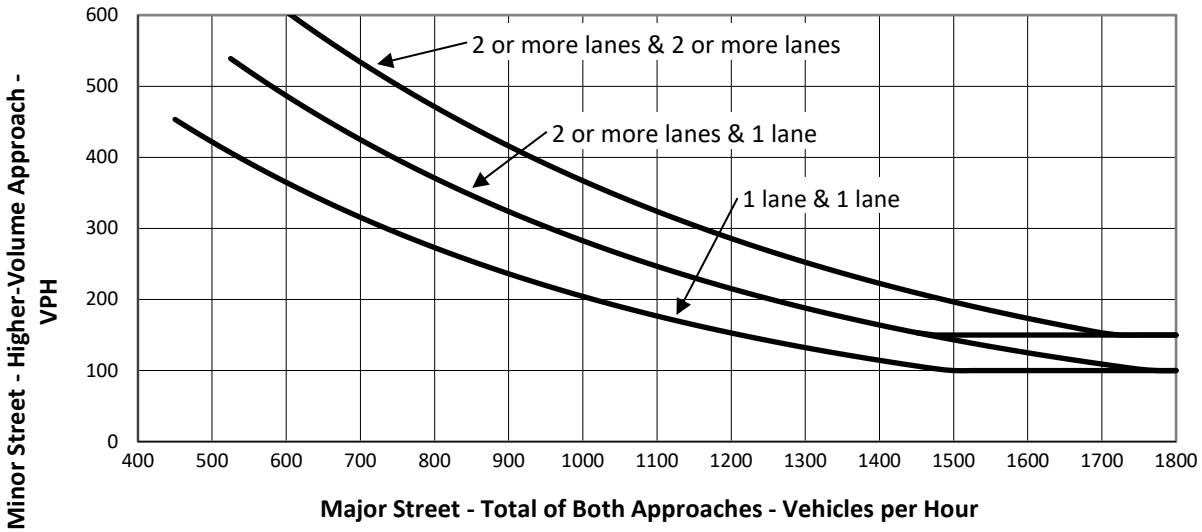
Major Street Name:	Calneva Drive	Vehicles per Hour (Peak Hour)	
Minor Street Name:	Mulholland Drive	Major Street (Approach 1):	1,091
		Major Street (Approach 2):	0
Major Street Lanes:	1	[a] Major Street Left-Turns:	1,082
Minor Street Lanes:	1	Minor Street (Higher Volume):	146

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,091	Minimum Major Street Volume:	450
Major Street (Approach 2):	0	Satisfied?	YES
Total Major Street Volume:	1,091		
		Minimum Minor Street Volume:	179
Major Street Left Turns:	1,082	Satisfied?	YES
Minor Street (Higher Volume):	146		
Total Minor Street Volume:	1,228	Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

7. CALNEVA DRIVE & MULHOLLAND DRIVE

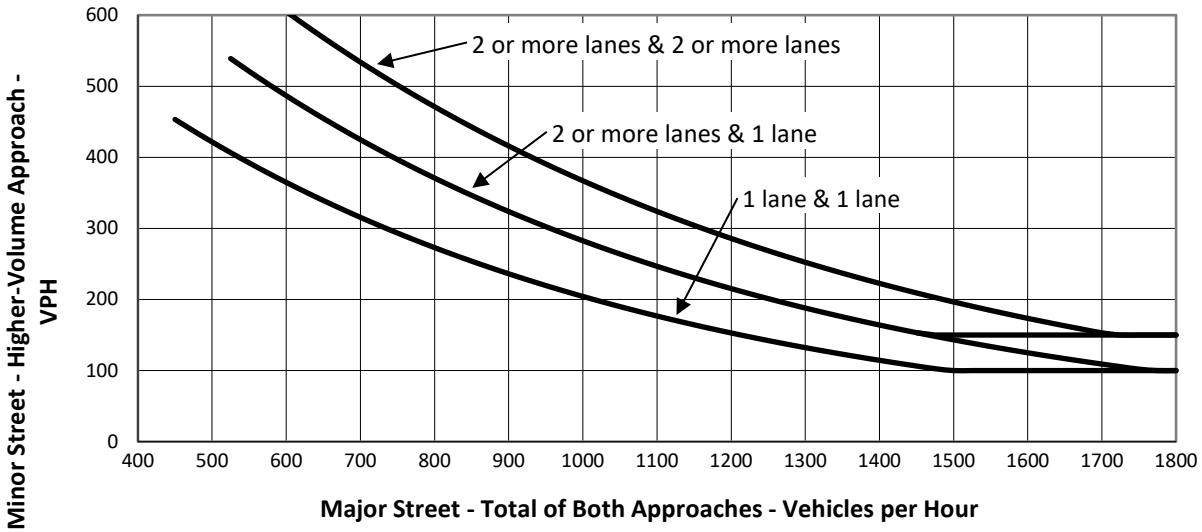
Major Street Name:	Calneva Drive	Vehicles per Hour (Peak Hour)	
Minor Street Name:	Mulholland Drive	Major Street (Approach 1):	1,104
		Major Street (Approach 2):	0
Major Street Lanes:	1	[a] Major Street Left-Turns:	1,095
Minor Street Lanes:	1	Minor Street (Higher Volume):	153

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,104	Minimum Major Street Volume:	450
Major Street (Approach 2):	0	Satisfied?	YES
Total Major Street Volume:	1,104		
		Minimum Minor Street Volume:	176
Major Street Left Turns:	1,095	Satisfied?	YES
Minor Street (Higher Volume):	153		
Total Minor Street Volume:	1,248	Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

7. CALNEVA DRIVE & MULHOLLAND DRIVE

Major Street Name:	Calneva Drive	Vehicles per Hour (Peak Hour)	
Minor Street Name:	Mulholland Drive	Major Street (Approach 1):	1,171
		Major Street (Approach 2):	0
Major Street Lanes:	1	[a] Major Street Left-Turns:	1,161
Minor Street Lanes:	1	Minor Street (Higher Volume):	160

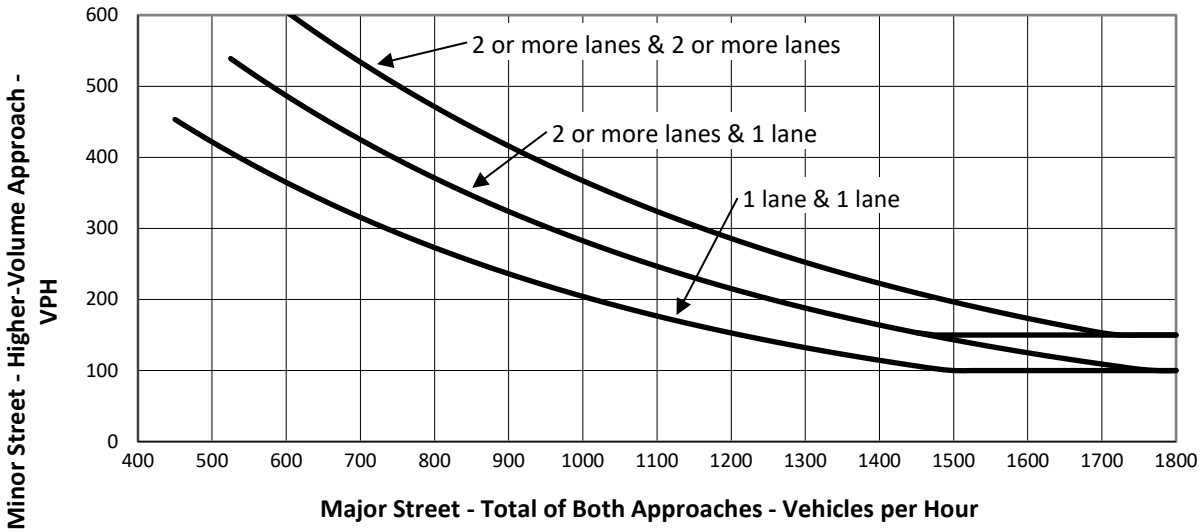
[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,171
Major Street (Approach 2):	0
Total Major Street Volume:	1,171
Major Street Left Turns:	1,161
Minor Street (Higher Volume):	160
Total Minor Street Volume:	1,321

Minimum Major Street Volume:	450
Satisfied?	YES
Minimum Minor Street Volume:	159
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

7. CALNEVA DRIVE & MULHOLLAND DRIVE

Major Street Name:	Calneva Drive	Vehicles per Hour (Peak Hour)	
Minor Street Name:	Mulholland Drive	Major Street (Approach 1):	1,184
		Major Street (Approach 2):	0
Major Street Lanes:	1	[a] Major Street Left-Turns:	1,174
Minor Street Lanes:	1	Minor Street (Higher Volume):	167

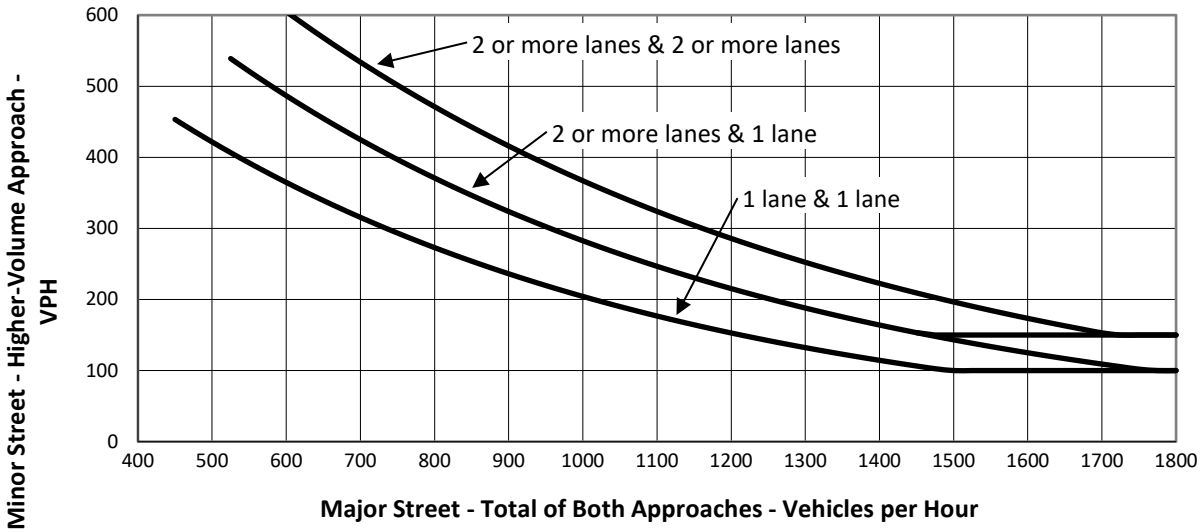
[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,184
Major Street (Approach 2):	0
Total Major Street Volume:	1,184
Major Street Left Turns:	1,174
Minor Street (Higher Volume):	167
Total Minor Street Volume:	1,341

Minimum Major Street Volume:	450
Satisfied?	YES
Minimum Minor Street Volume:	156
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

8. MAIN DRIVEWAY & MULHOLLAND DRIVE

Major Street Name: Main Driveway
Minor Street Name: Mulholland Drive

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

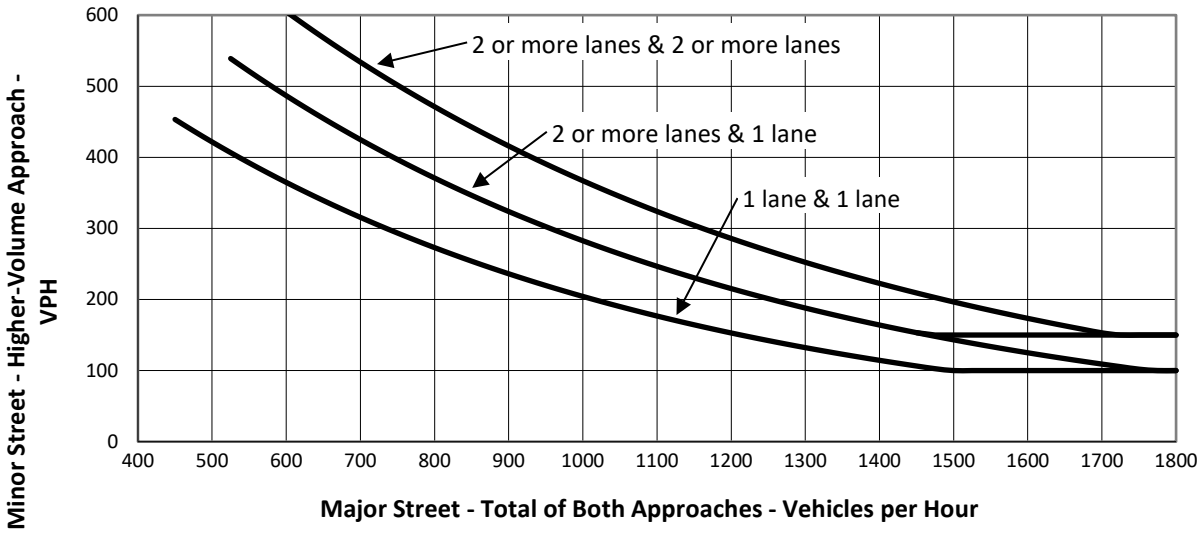
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,274
Major Street (Approach 2):	384
[a] Major Street Left-Turns:	149
Minor Street (Higher Volume):	77

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,274
Major Street (Approach 2):	384
Total Major Street Volume:	1,658
Major Street Left Turns:	149
Minor Street (Higher Volume):	77
Total Minor Street Volume:	226

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	161
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

8. MAIN DRIVEWAY & MULHOLLAND DRIVE

Major Street Name: Main Driveway
Minor Street Name: Mulholland Drive

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

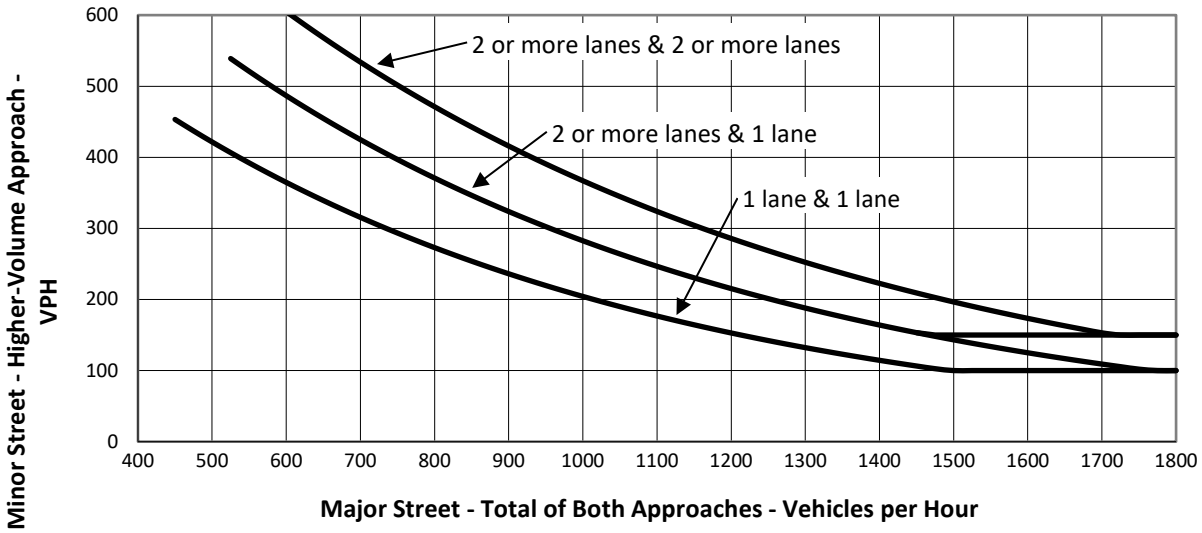
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,287
Major Street (Approach 2):	425
[a] Major Street Left-Turns:	187
Minor Street (Higher Volume):	100

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,287
Major Street (Approach 2):	425
Total Major Street Volume:	1,712
Major Street Left Turns:	187
Minor Street (Higher Volume):	100
Total Minor Street Volume:	287

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	151
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

8. MAIN DRIVEWAY & MULHOLLAND DRIVE

Major Street Name: Main Driveway
Minor Street Name: Mulholland Drive

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

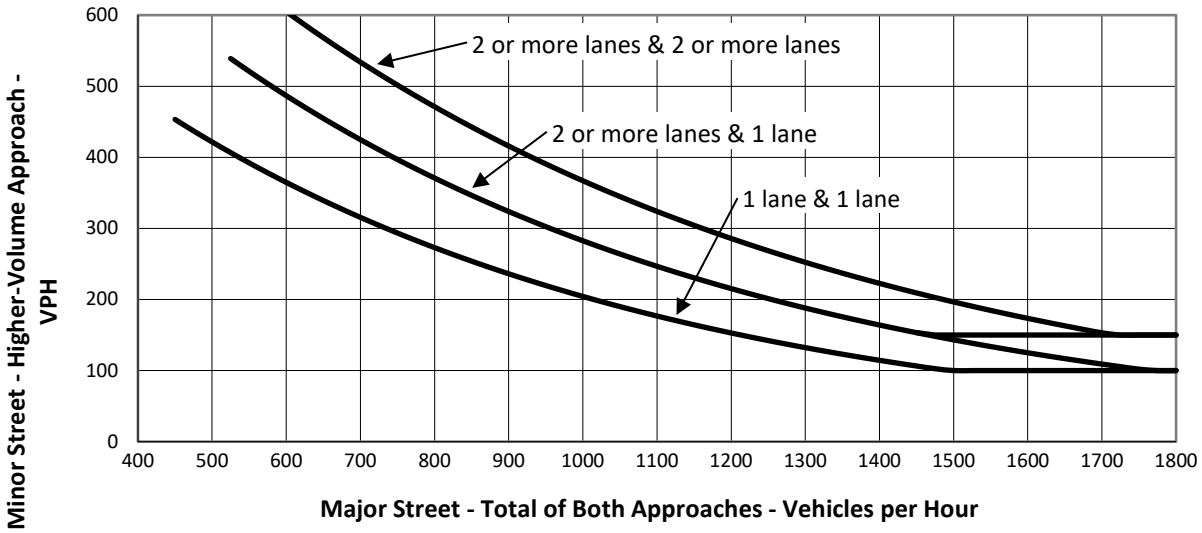
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,364
Major Street (Approach 2):	412
[a] Major Street Left-Turns:	158
Minor Street (Higher Volume):	82

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,364
Major Street (Approach 2):	412
Total Major Street Volume:	1,776
Major Street Left Turns:	158
Minor Street (Higher Volume):	82
Total Minor Street Volume:	240

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	150
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

8. MAIN DRIVEWAY & MULHOLLAND DRIVE

Major Street Name: Main Driveway
Minor Street Name: Mulholland Drive

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

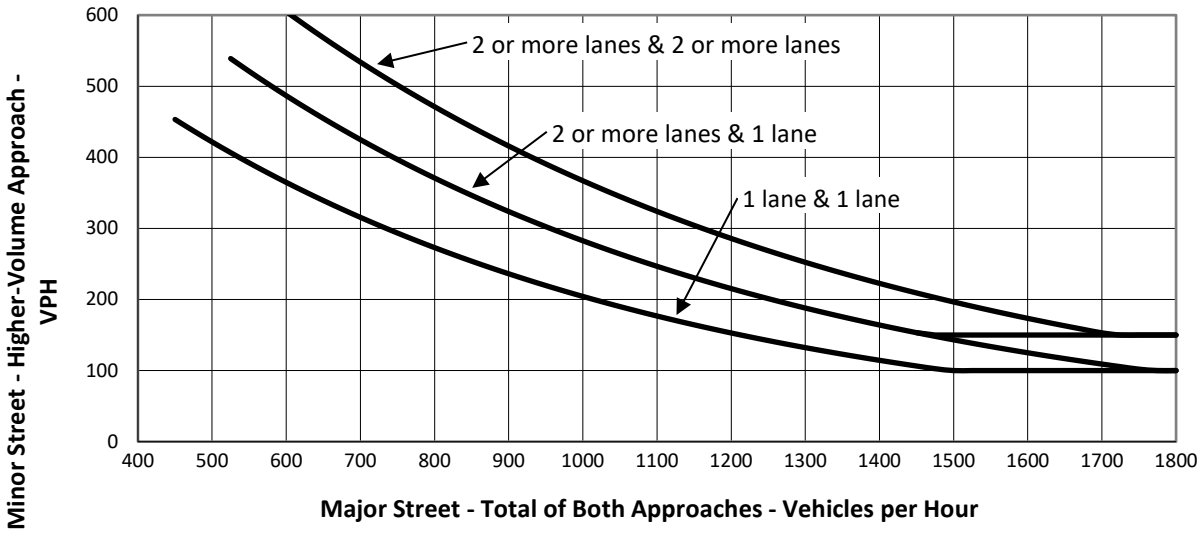
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,377
Major Street (Approach 2):	453
[a] Major Street Left-Turns:	196
Minor Street (Higher Volume):	105

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,377
Major Street (Approach 2):	453
Total Major Street Volume:	1,830
Major Street Left Turns:	196
Minor Street (Higher Volume):	105
Total Minor Street Volume:	301

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	150
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

9. DRIVEWAY 2 & MULHOLLAND DRIVE

Major Street Name: Driveway 2
Minor Street Name: Mulholland Drive

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

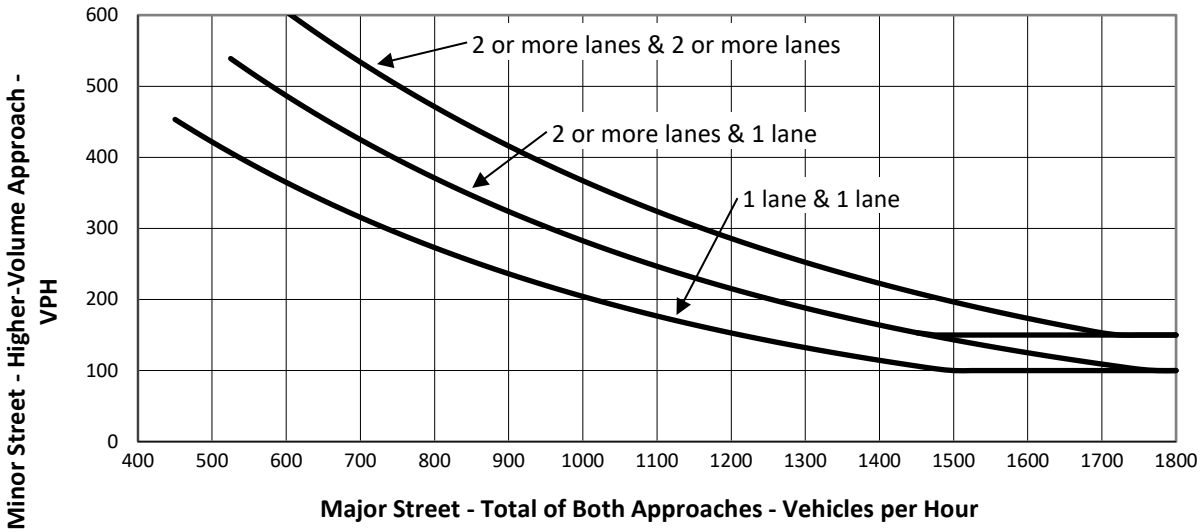
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,362
Major Street (Approach 2):	443
[a] Major Street Left-Turns:	0
Minor Street (Higher Volume):	52

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,362
Major Street (Approach 2):	443
Total Major Street Volume:	1,805
Major Street Left Turns:	0
Minor Street (Higher Volume):	52
Total Minor Street Volume:	52

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	150
Satisfied?	NO
Warrant 3 Satisfied?	**NO**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Mirman School for Gifted Children

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

10. DRIVEWAY 3 & MULHOLLAND DRIVE

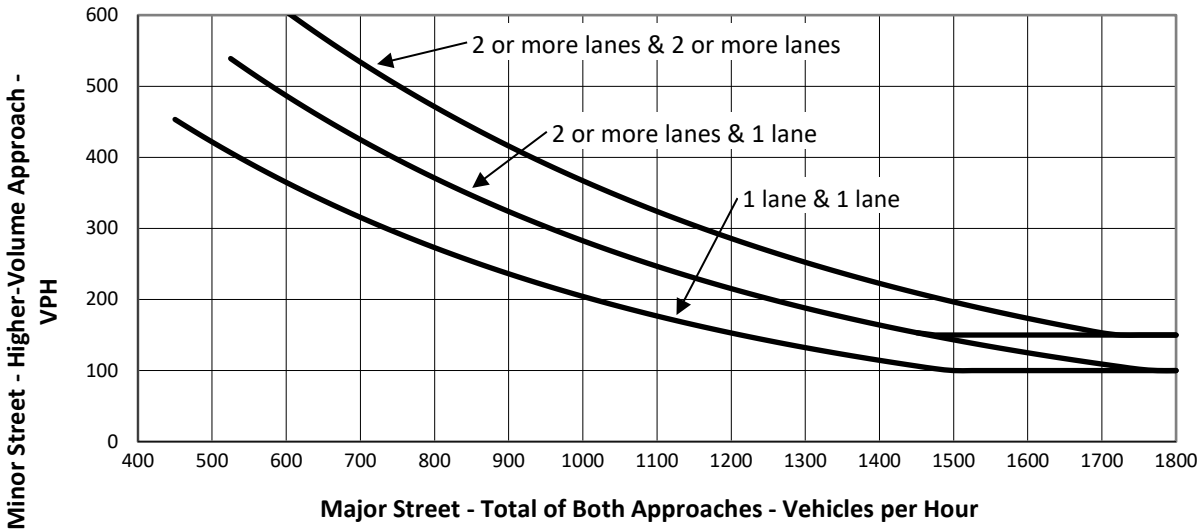
Major Street Name:	Driveway 3	Vehicles per Hour (Peak Hour)	
Minor Street Name:	Mulholland Drive	Major Street (Approach 1):	1,389
		Major Street (Approach 2):	472
Major Street Lanes:	2	[a] Major Street Left-Turns:	25
Minor Street Lanes:	2	Minor Street (Higher Volume):	36

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,389	Minimum Major Street Volume:	620
Major Street (Approach 2):	472	Satisfied?	YES
Total Major Street Volume:	1,861		
		Minimum Minor Street Volume:	150
Major Street Left Turns:	25	Satisfied?	NO
Minor Street (Higher Volume):	36		
Total Minor Street Volume:	61	Warrant 3 Satisfied?	**NO**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Appendix H

Caltrans Analysis

Appendix H
Caltrans Analysis

To better align with the State's multimodal transportation and environmental action goals, the California Department of Transportation (Caltrans) is pursuing VMT as a metric of Project impacts, which is outlined in *Local Development – Intergovernmental Review Program Interim Guide* (Caltrans, Approved September 2016) (Caltrans Interim Guide).

This chapter presents an analysis of Caltrans facilities, including Caltrans signalized intersections and off-ramp queuing to provide further information to the decision makers. The analysis followed the guidelines found in the Caltrans Interim Guide, as required.

The Caltrans Interim Guide suggests the approach with which Caltrans can recommend improvements to enhance pedestrian safety and increase pedestrian accessibility to help meet the goals and targets of the *Caltrans Strategic Management Plan 2015-2020* (Caltrans, March 2015) and *California Transportation Plan 2040* (Caltrans, June 2016). The Caltrans Interim Guide directs lead agencies to consider "multi-modal solutions from existing regional transportation plans, regional plans, transit plans, bicycle plans, and pedestrian plans." The detailed Caltrans analysis is presented in the appendices.

ANALYZED FACILITIES

Typically, a Project's potential impact on the mainline freeway facilities are measured for both Opening Day and Long-Range Cumulative Conditions. The full buildout of the Project would generate 91 net new Project trips in the morning commute peak hour and 26 net new trips in the afternoon commute peak hour. When allocated to the freeway system, these Project trips would use the freeway segments as follows:

	AM Peak		PM Peak	
US 101	EB	WB	EB	WB
Balboa to Hayvenhurst	0	2	0	1
Hayvenhurst to I-405	3	7	2	2
I-405 to Van Nuys	4	5	2	1
I-405	NB	SB	NB	SB
Burbank to US 101	2	3	1	1
US 101 to Valley Vista	2	3	1	1
Valley Vista to Mulholland	5	0	2	0
Mulholland to Sunset	13	10	3	4

As shown, the amount of Project traffic assigned to any individual freeway mainline segment is so small that the detailed analysis of mainline impacts was deemed to be unnecessary.

Table H-1 lists the signalized ramp intersections and off-ramp queuing analyses that were conducted for Caltrans facilities. Five signalized intersections located at freeway ramps and under partial Caltrans jurisdiction were analyzed using HCM methodology to identify average vehicle delay and LOS. Four freeway off-ramps were analyzed for ramp queue lengths using Synchro software to estimate queues.

The Attachment contains the LOS worksheets for each type of analysis.

IMPACT THRESHOLDS

Per the Caltrans Interim Guide, Caltrans' target LOS is between LOS C and LOS D, which is generally interpreted to mean in the lower half of the range of LOS D (where the LOS is determined based on the intersection delay). When that threshold has already been exceeded, the existing condition (or projected future condition) should be maintained with the addition of Project traffic.

However, Caltrans does not identify specific incremental criteria by which to measure the significance of impacts to freeway intersections and, therefore, it is not possible to identify whether

a specific facility would be significantly impacted under Caltrans criteria. Similarly, the lack of a definitive threshold to determine whether there is a significant impact results in the inability to precisely identify mitigation measures that have a direct nexus to the potential impacts of a project. Moreover, improvements to Caltrans freeway facilities tend to be beyond the feasibility of any individual project to implement. Therefore, Appendix B of the Caltrans TIS Guide provides a methodology to identify a project's proportionate share of the future traffic growth on the Caltrans freeway facilities. The proportionate share is calculated as the project's percentage of the total projected traffic growth on a freeway mainline segment up to year 2040.

INTERSECTIONS

As described in Chapter 3, a total of 16 intersections were analyzed according to the significance thresholds established by LADOT. As shown in Table H-1, this Caltrans analysis focused on the five signalized freeway ramp locations.

Overview

The signalized intersections under Caltrans jurisdiction were further analyzed using the HCM methodology according to Caltrans Interim Guide and implemented using Synchro software. Actual signal timing based on current timing charts provided by LADOT (which operates the signals) was incorporated into the analysis. Table H-2 summarizes the LOS definitions for signalized intersections. Caltrans has not published a specific significance threshold that defines a significant impact for signalized intersections.

Year 2019 Conditions

The analysis of Year 2019 conditions was conducted using available traffic count data from Year 2016 and 2017 and provided in Appendix D. Table H-3 summarizes the results of the signalized HCM analysis for Existing Conditions and Existing with Project Conditions.

Year 2025 Conditions

The Year 2025 traffic volumes were developed by increasing the existing traffic volumes with both ambient growth (assumed to be 1% per year) and Related Project traffic, in the same manner as Future without Project traffic volumes were developed for Year 2025 in Chapter 4.

Table H-4 summarizes the results of the signalized HCM analysis for Future without Project Conditions and Future with Project Conditions for Year 2025.

Year 2040 Conditions

The Year 2040 traffic volumes were developed by increasing the existing traffic volumes with both ambient growth (assumed to be 1% per year) and Related Project traffic, in the same manner as Future without Project traffic volumes were developed for Year 2025 in Chapter 4.

Tables H-5 summarizes the results of the signalized HCM analysis for Future without Project Conditions and Future with Project Conditions for Year 2040.

OFF-RAMP QUEUES

Four off-ramps from US 101 and I-405 were analyzed to determine whether the length of the ramps are sufficient to accommodate vehicle queue lengths. The queue lengths were estimated using Synchro, which reports the 95th percentile queue length, in feet, for each approach lane on the off-ramp.

The assessment of the off-ramps includes a review of the vehicle queue length as compared to the total available queuing capacity of the ramp to determine whether the vehicle queue would extend beyond the length of the ramp onto the mainline. To this end, the queuing analysis looked at two separate components of ramp capacity: the length of each approach lane to the intersection and the remaining length of the ramp, behind any approach lane delineation lines, to the gore point where the ramp diverges from the freeway mainline. The queue may exceed the striped

length of a given approach lane; as long as there is sufficient additional queuing capacity on the ramp, it will not spill over onto the mainline.

Year 2019 Conditions

The analysis of Year 2019 conditions was conducted using available traffic count data from Year 2016 and Year 2017. Table H-6 summarizes the results of the queuing analysis for Existing Conditions and Existing with Project Conditions for Year 2019. As shown in Table H-6, the queue lengths at all four off-ramps would not exceed the capacity of the approach lanes or the ramps. The Project would not substantially worsen queuing at any location.

Year 2025 Conditions

The year 2025 traffic volumes were developed by increasing the existing traffic volumes by both ambient growth (assumed to be 1% per year) and Related Project traffic, in the same manner as Future without Project traffic volumes were developed for year 2025 in Chapter 4. Table H-7 summarizes the results of the queuing analysis for Future without Project Conditions and Future with Project Conditions for year 2025. As shown, the queue lengths at the four off-ramps would not exceed the capacity of the approach lanes or the ramps. The Project would not substantially worsen queuing at any location.

Year 2040 Conditions

The year 2040 traffic volumes were developed by increasing the existing traffic volumes by both ambient growth (assumed to be 1% per year) and Related Project traffic, in the same manner as Future without Project traffic volumes were developed for year 2025 in Chapter 4. Table H-8 summarizes the results of the queuing analysis for Future without Project Conditions and Future with Project Conditions for year 2040. As shown, the queue lengths at the four off-ramps would not exceed the capacity of the approach lanes or the ramps. The Project would not substantially worsen queuing at any location.

TABLE H-1
ANALYZED CALTRANS FACILITIES

ID	Location
Signalized Intersections	
S-1.	US 101 Northbound Off-Ramp & Hayvenhurst Avenue (Intersection #1)
S-2.	US 101 Southbound On-Ramp/Magnolia Boulevard & Hayvenhurst Avenue (Intersection #2)
S-3.	I-405/US 101 Northbound Ramps/Greenleaf Street & Sepulveda Boulevard (Intersection #4)
S-4.	I-405 Northbound Ramps & Skirball Center Drive (Intersection #13)
S-5.	I-405 Southbound Ramps & Sepulveda Boulevard (Intersection #15)
Off-Ramp Queues	
Q-1.	US 101 Northbound Off-Ramp & Hayvenhurst Avenue (Intersection #1)
Q-2.	I-405/US 101 Northbound Ramps/Greenleaf Street & Sepulveda Boulevard (Intersection #4)
Q-3.	I-405 Northbound Ramps & Skirball Center Drive (Intersection #13)
Q-4.	I-405 Southbound Ramps & Sepulveda Boulevard (Intersection #15)

TABLE H-2
INTERSECTION LEVEL OF SERVICE

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

Notes

Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).

[a] Measured in seconds.

TABLE H-3
EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions	
			Delay	LOS	Delay	LOS
S-1.	US 101 Northbound Off-Ramp & Hayvenhurst Avenue (Intersection #1)	AM	11.1	B	11.2	B
		School PM	8.0	A	8.0	A
		PM	8.5	A	8.5	A
S-2.	US 101 Southbound On-Ramp/Magnolia Boulevard & Hayvenhurst Avenue (Intersection #2)	AM	44.9	D	45.6	D
		School PM	9.4	A	9.4	A
		PM	14.2	B	14.2	B
S-3.	I-405/US 101 Northbound Ramps/Greenleaf Street & Sepulveda Boulevard (Intersection #4)	AM	18.0	B	18.1	B
		School PM	41.6	D	40.3	D
		PM	51.1	D	51.1	D
S-4.	I-405 Northbound Ramps & Skirball Center Drive (Intersection #13)	AM	14.0	B	14.5	B
		School PM	23.3	C	23.8	C
		PM	85.1	F	86.5	F
S-5.	I-405 Southbound Ramps & Sepulveda Boulevard (Intersection #15)	AM	297.8	F	298.7	F
		School PM	141.0	F	140.5	F
		PM	365.9	F	365.7	F

Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology).

TABLE H-4
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions	
			Delay	LOS	Delay	LOS
S-1.	US 101 Northbound Off-Ramp & Hayvenhurst Avenue (Intersection #1)	AM	11.8	B	11.8	B
		School PM	8.3	A	8.3	A
		PM	9.1	A	9.1	A
S-2.	US 101 Southbound On-Ramp/Magnolia Boulevard & Hayvenhurst Avenue (Intersection #2)	AM	69.7	E	70.6	E
		School PM	9.9	A	9.9	A
		PM	17.1	B	17.1	B
S-3.	I-405/US 101 Northbound Ramps/Greenleaf Street & Sepulveda Boulevard (Intersection #4)	AM	21.3	C	21.3	C
		School PM	64.3	E	64.5	E
		PM	72.3	E	72.3	E
S-4.	I-405 Northbound Ramps & Skirball Center Drive (Intersection #13)	AM	16.5	B	17.4	B
		School PM	33.7	C	35.0	C
		PM	136.5	F	137.7	F
S-5.	I-405 Southbound Ramps & Sepulveda Boulevard (Intersection #15)	AM	336.7	F	337.4	F
		School PM	172.7	F	174.4	F
		PM	430.9	F	430.8	F

Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology).

TABLE H-5
FUTURE WITH PROJECT CONDITIONS (YEAR 2040)
SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions	
			Delay	LOS	Delay	LOS
S-1.	US 101 Northbound Off-Ramp & Hayvenhurst Avenue (Intersection #1)	AM	12.5	B	12.5	B
		School PM	9.1	A	9.1	A
		PM	9.4	A	9.5	A
S-2.	US 101 Southbound On-Ramp/Magnolia Boulevard & Hayvenhurst Avenue (Intersection #2)	AM	87.6	F	88.4	F
		School PM	11.2	B	11.2	B
		PM	19.3	B	19.3	B
S-3.	I-405/US 101 Northbound Ramps/Greenleaf Street & Sepulveda Boulevard (Intersection #4)	AM	25.1	C	25.1	C
		School PM	139.3	F	139.2	F
		PM	93.9	F	93.9	F
S-4.	I-405 Northbound Ramps & Skirball Center Drive (Intersection #13)	AM	19.6	B	21.0	C
		School PM	60.2	E	61.6	E
		PM	155.0	F	156.4	F
S-5.	I-405 Southbound Ramps & Sepulveda Boulevard (Intersection #15)	AM	368.4	F	369.0	F
		School PM	249.1	F	250.9	F
		PM	469.8	F	469.6	F

Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10 (HCM methodology).

TABLE H-6
FREEWAY OFF-RAMP QUEUE EVALUATION
EXISTING OPERATING CONDITIONS (YEAR 2019)

ID	Freeway Off-ramp	Ramp and Lane Description	Vehicle Storage Capacity [a]	Existing Conditions						Existing with Project Conditions					
				AM Peak Hour		School PM Peak Hour		PM Peak Hour		AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1.	US 101 NB Off-Ramp &	US 101 Northbound Off-Ramp													
[c]	Hayvenhurst Avenue	Left	347	136		87		78		138		87		78	
	(Signalized Intersection #1)	Shared Left/Right	347	136		87		78		138		87		78	
		Ramp	361	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-2.	I-405/US 101 NB Ramps/Greenleaf Street &	US 101 Northbound Off-Ramp													
	Speulveda Boulevard	Left	540	201		216		201		201		214		201	
	(Signalized Intersection #4)	Shared Left/Through/Right	540	209		244		235		209		243		235	
		Ramp	754	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-3.	I-405 NB Off-Ramp &	US 101 Northbound Off-Ramp													
	Skirball Center Drive	Left	575	65		40		41		68		41		41	
	(Signalized Intersection #13)	Left	575	65		40		41		68		41		41	
		Right	70	15		15		16		15		15		16	
		Ramp	904	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-4.	I-405 SB Off-Ramp &	US 101 Southbound Off-Ramp													
	Sepulveda Boulevard	Left	76	76		30		20		76		30		20	
	(Signalized Intersection #15)	Left	271	141		30		20		141		30		20	
		Right	271	15		66		35		15		65		35	
		Ramp	768	65	NO	0	NO	0	NO	65	NO	0	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per SYNCHRO 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016). SYNCHRO 10 queue results expressed in number of vehicles. Vehicle length is assumed to be 25 feet.

TABLE H-7
FREEWAY OFF-RAMP QUEUE EVALUATION
FUTURE OPERATING CONDITIONS (YEAR 2025)

ID	Freeway Off-ramp	Ramp and Lane Description	Vehicle Storage Capacity [a]	Future without Project Conditions						Future with Project Conditions					
				AM Peak Hour		School PM Peak Hour		PM Peak Hour		AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1.	US 101 NB Off-Ramp &	US 101 Northbound Off-Ramp													
[c]	Hayvenhurst Avenue	Left	347	153		95		85		160		96		85	
	(Signalized Intersection #1)	Shared Left/Right	347	153		95		85		160		96		85	
		Ramp	361	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-2.	I-405/US 101 NB Ramps/Greenleaf Street &	US 101 Northbound Off-Ramp													
	Speulveda Boulevard	Left	540	215		237		216		217		237		216	
	(Signalized Intersection #4)	Shared Left/Through/Right	540	226		270		210		228		270		210	
		Ramp	754	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-3.	I-405 NB Off-Ramp &	US 101 Northbound Off-Ramp													
	Skirball Center Drive	Left	575	70		43		43		72		43		44	
	(Signalized Intersection #13)	Left	575	70		43		43		72		43		44	
		Right	70	16		16		16		16		16		16	
		Ramp	904	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-4.	I-405 SB Off-Ramp &	US 101 Southbound Off-Ramp													
	Sepulveda Boulevard	Left	76	76		35		37		76		35		37	
	(Signalized Intersection #15)	Left	271	177		35		37		200		35		37	
		Right	271	15		70		37		15		70		37	
		Ramp	768	101	NO	0	NO	0	NO	124	NO	0	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per SYNCHRO 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016). SYNCHRO 10 queue results expressed in number of vehicles. Vehicle length is assumed to be 25 feet.

TABLE H-8
FREEWAY OFF-RAMP QUEUE EVALUATION
FUTURE OPERATING CONDITIONS (YEAR 2040)

ID	Freeway Off-ramp	Ramp and Lane Description	Vehicle Storage Capacity [a]	Future without Project Conditions						Future with Project Conditions					
				AM Peak Hour		School PM Peak Hour		PM Peak Hour		AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1.	US 101 NB Off-Ramp &	US 101 Northbound Off-Ramp													
[c]	Hayvenhurst Avenue	Left	347	200		117		90		201		117		90	
	(Signalized Intersection #1)	Shared Left/Right	347	200		117		90		201		117		90	
		Ramp	361	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-2.	I-405/US 101 NB Ramps/Greenleaf Street &	US 101 Northbound Off-Ramp													
	Speulveda Boulevard	Left	540	228		245		198		228		245		198	
	(Signalized Intersection #4)	Shared Left/Through/Right	540	250		281		235		250		281		235	
		Ramp	754	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-3.	I-405 NB Off-Ramp &	US 101 Northbound Off-Ramp													
	Skirball Center Drive	Left	575	74		49		45		76		50		46	
	(Signalized Intersection #13)	Left	575	74		49		45		76		50		46	
		Right	70	17		17		16		17		17		16	
		Ramp	904	0	NO	0	NO	0	NO	0	NO	0	NO	0	NO
Q-4.	I-405 SB Off-Ramp &	US 101 Southbound Off-Ramp													
	Santa Monica Boulevard	Left	76	76		39		37		76		39		37	
	(Signalized Intersection #15)	Left	271	214		39		37		214		39		37	
		Right	271	16		82		38		16		82		38	
		Ramp	768	138	NO	0	NO	0	NO	138	NO	0	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per SYNCHRO 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016). SYNCHRO 10 queue results expressed in number of vehicles. Vehicle length is assumed to be 25 feet.

Attachment

Level of Service Worksheets



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1000	432	1658
v/c Ratio	0.72	0.21	0.65
Control Delay	13.3	6.8	11.2
Queue Delay	0.0	0.0	0.7
Total Delay	13.3	6.8	11.9
Queue Length 50th (ft)	85	20	81
Queue Length 95th (ft)	136	30	111
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	3	0	504
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.72	0.21	0.81

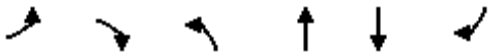
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	371	393	122	199	172	236	17	1509	170
v/c Ratio	0.83	0.82	0.39	0.27	0.92	0.17	0.04	0.79	0.26
Control Delay	31.7	28.9	13.3	8.8	71.2	7.6	7.7	14.4	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	28.9	13.3	8.8	71.2	7.6	7.7	14.4	3.1
Queue Length 50th (ft)	72	75	18	26	34	15	2	106	0
Queue Length 95th (ft)	#201	#209	50	57	#123	31	10	152	27
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	448	482	310	743	186	1411	450	1921	646
Starvation Cap Reductn	0	0	0	0	0	0	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	0.83	0.82	0.39	0.27	0.92	0.17	0.04	0.79	0.26

Intersection Summary

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	520	41	88	190	1202	229
v/c Ratio	0.38	0.06	0.47	0.13	0.85	0.30
Control Delay	9.5	5.8	20.5	8.0	19.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	5.8	20.5	8.0	19.3	2.8
Queue Length 50th (ft)	39	3	14	13	120	0
Queue Length 95th (ft)	65	15	#59	26	#226	27
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	644	186	1415	1415	770
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.06	0.47	0.13	0.85	0.30

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	71	257	5	754	2803
v/c Ratio	0.62	0.11	0.18	0.01	0.88	1.98
Control Delay	14.2	3.2	8.2	5.2	27.0	462.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.2	8.2	5.2	27.0	462.0
Queue Length 50th (ft)	73	0	18	0	75	~552
Queue Length 95th (ft)	141	15	34	4	#164	#674
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	675	1415	636	857	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.11	0.18	0.01	0.88	1.98

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	611	1395	679
v/c Ratio	0.46	0.69	0.26
Control Delay	10.1	8.2	8.4
Queue Delay	0.0	0.2	0.0
Total Delay	10.1	8.4	8.4
Queue Length 50th (ft)	47	47	27
Queue Length 95th (ft)	78	88	41
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1317	2034	2563
Starvation Cap Reductn	0	132	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.46	0.73	0.26

Intersection Summary

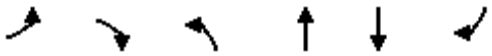


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	292	352	33	481	268	846	23	896	367
v/c Ratio	1.20	1.25	0.10	0.65	1.40	0.60	0.12	0.46	0.53
Control Delay	144.9	158.0	8.4	14.6	228.1	11.4	9.6	7.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	144.9	158.0	8.4	14.6	228.1	11.4	9.6	7.2	6.8
Queue Length 50th (ft)	~89	~108	4	80	~86	71	3	37	20
Queue Length 95th (ft)	#201	#235	16	153	#188	113	14	61	73
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	243	282	347	744	192	1413	188	1946	688
Starvation Cap Reductn	0	0	0	0	0	0	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	1.20	1.25	0.10	0.65	1.40	0.60	0.12	0.46	0.53

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	320	76	726	518	265	229
v/c Ratio	0.23	0.11	1.66	0.37	0.19	0.30
Control Delay	8.5	3.1	324.9	9.4	8.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.1	324.9	9.4	8.2	2.8
Queue Length 50th (ft)	22	0	~254	40	18	0
Queue Length 95th (ft)	41	16	#407	66	35	27
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	678	438	1415	1415	770
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.11	1.66	0.37	0.19	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	105	2798	9	215	300
v/c Ratio	0.07	0.17	1.98	0.01	0.60	0.21
Control Delay	7.8	8.6	460.4	4.9	19.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	460.4	4.9	19.0	8.4
Queue Length 50th (ft)	7	14	~551	0	18	21
Queue Length 95th (ft)	20	35	#672	5	#56	39
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	638	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.17	1.98	0.01	0.60	0.21

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	696	1013	630
v/c Ratio	0.52	0.50	0.25
Control Delay	10.2	6.2	8.3
Queue Delay	0.0	0.1	0.0
Total Delay	10.2	6.3	8.3
Queue Length 50th (ft)	53	33	25
Queue Length 95th (ft)	87	43	39
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1350	2034	2563
Starvation Cap Reductn	0	142	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.54	0.25

Intersection Summary

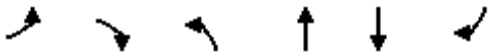


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	340	385	49	396	292	730	18	740	246
v/c Ratio	1.10	1.15	0.15	0.53	1.18	0.52	0.08	0.37	0.36
Control Delay	101.8	116.3	9.2	12.1	137.3	10.5	8.5	6.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.8	116.3	9.2	12.1	137.3	10.5	8.5	6.1	3.3
Queue Length 50th (ft)	~97	~112	7	61	~84	59	2	26	0
Queue Length 95th (ft)	#216	#244	22	119	#190	95	11	47	33
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	309	335	318	744	247	1414	234	1974	692
Starvation Cap Reductn	0	0	0	0	0	0	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	1.10	1.15	0.15	0.53	1.18	0.52	0.08	0.37	0.36

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	313	75	401	662	522	338
v/c Ratio	0.23	0.11	1.20	0.47	0.37	0.40
Control Delay	8.5	3.1	136.0	10.2	9.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.1	136.0	10.2	9.4	3.0
Queue Length 50th (ft)	22	0	~117	53	40	0
Queue Length 95th (ft)	40	15	#238	86	67	33
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	678	334	1415	1415	836
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.11	1.20	0.47	0.37	0.40

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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	212	2015	10	346	445
v/c Ratio	0.13	0.33	1.42	0.02	0.96	0.31
Control Delay	8.2	10.2	213.4	4.8	57.3	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	10.2	213.4	4.8	57.3	9.0
Queue Length 50th (ft)	12	30	~344	0	36	33
Queue Length 95th (ft)	30	66	#457	6	#101	57
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.33	1.42	0.02	0.96	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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1006	432	1658
v/c Ratio	0.73	0.21	0.65
Control Delay	13.4	6.8	11.2
Queue Delay	0.0	0.0	0.7
Total Delay	13.4	6.8	11.9
Queue Length 50th (ft)	86	20	81
Queue Length 95th (ft)	138	30	111
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	3	0	508
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.73	0.21	0.81

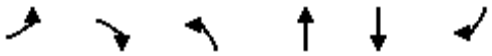
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	371	393	122	199	172	239	17	1514	170
v/c Ratio	0.83	0.82	0.39	0.27	0.92	0.17	0.04	0.79	0.26
Control Delay	31.7	28.9	13.3	8.8	71.2	7.6	7.7	14.5	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	28.9	13.3	8.8	71.2	7.6	7.7	14.5	3.1
Queue Length 50th (ft)	72	75	18	26	34	15	2	106	0
Queue Length 95th (ft)	#201	#209	50	57	#123	31	10	153	27
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	448	482	310	743	186	1411	449	1921	646
Starvation Cap Reductn	0	0	0	0	0	0	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	0.83	0.82	0.39	0.27	0.92	0.17	0.04	0.79	0.26

Intersection Summary

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	534	41	88	208	1225	235
v/c Ratio	0.39	0.06	0.47	0.15	0.87	0.30
Control Delay	9.6	5.9	20.5	8.0	20.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	5.9	20.5	8.0	20.3	2.8
Queue Length 50th (ft)	40	3	14	14	123	0
Queue Length 95th (ft)	68	15	#59	28	#233	27
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	643	186	1415	1415	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.06	0.47	0.15	0.87	0.30

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	71	267	5	765	2812
v/c Ratio	0.62	0.11	0.19	0.01	0.90	1.99
Control Delay	14.2	3.2	8.3	5.2	29.7	464.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.2	8.3	5.2	29.7	464.9
Queue Length 50th (ft)	73	0	18	0	77	~554
Queue Length 95th (ft)	141	15	35	4	#168	#676
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	675	1415	636	848	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.11	0.19	0.01	0.90	1.99

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	612	1395	679
v/c Ratio	0.46	0.69	0.26
Control Delay	10.1	8.2	8.4
Queue Delay	0.0	0.2	0.0
Total Delay	10.1	8.4	8.4
Queue Length 50th (ft)	47	47	27
Queue Length 95th (ft)	78	88	41
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1317	2034	2563
Starvation Cap Reductn	0	132	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.46	0.73	0.26

Intersection Summary

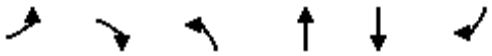


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	292	352	33	481	268	847	23	897	367
v/c Ratio	1.20	1.25	0.10	0.65	1.40	0.60	0.12	0.46	0.53
Control Delay	144.9	158.0	8.4	14.6	228.1	11.4	9.7	7.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	144.9	158.0	8.4	14.6	228.1	11.4	9.7	7.2	6.8
Queue Length 50th (ft)	~89	~108	4	80	~86	71	3	37	20
Queue Length 95th (ft)	#201	#235	16	153	#188	113	14	61	73
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	243	282	347	744	192	1413	187	1946	688
Starvation Cap Reductn	0	0	0	0	0	0	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	1.20	1.25	0.10	0.65	1.40	0.60	0.12	0.46	0.53

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	323	76	726	523	273	232
v/c Ratio	0.24	0.11	1.67	0.37	0.19	0.30
Control Delay	8.5	3.1	330.0	9.4	8.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.1	330.0	9.4	8.3	2.8
Queue Length 50th (ft)	23	0	~255	40	19	0
Queue Length 95th (ft)	41	16	#407	67	36	27
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	678	435	1415	1415	772
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.11	1.67	0.37	0.19	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	105	2800	9	220	303
v/c Ratio	0.07	0.17	1.98	0.01	0.61	0.21
Control Delay	7.8	8.6	461.1	4.9	19.7	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	461.1	4.9	19.7	8.4
Queue Length 50th (ft)	7	14	~551	0	18	22
Queue Length 95th (ft)	20	35	#673	5	#58	40
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	638	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.17	1.98	0.01	0.61	0.21

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	696	1009	628
v/c Ratio	0.52	0.50	0.25
Control Delay	10.2	6.2	8.3
Queue Delay	0.0	0.1	0.0
Total Delay	10.2	6.3	8.3
Queue Length 50th (ft)	53	33	25
Queue Length 95th (ft)	87	43	38
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1350	2034	2563
Starvation Cap Reductn	0	142	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.53	0.25

Intersection Summary

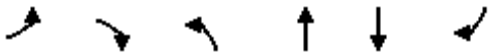


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	338	384	49	393	291	726	18	739	245
v/c Ratio	1.09	1.14	0.15	0.53	1.18	0.51	0.08	0.37	0.35
Control Delay	97.2	111.3	9.2	12.0	135.8	10.5	8.5	6.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.2	111.3	9.2	12.0	135.8	10.5	8.5	6.1	3.3
Queue Length 50th (ft)	~95	~111	7	60	~84	58	2	26	0
Queue Length 95th (ft)	#214	#243	22	117	#189	94	11	47	33
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	311	338	318	744	247	1414	236	1974	691
Starvation Cap Reductn	0	0	0	0	0	0	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	1.09	1.14	0.15	0.53	1.18	0.51	0.08	0.37	0.35

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	318	75	399	668	538	341
v/c Ratio	0.23	0.11	1.22	0.47	0.38	0.41
Control Delay	8.5	3.1	145.6	10.3	9.5	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.1	145.6	10.3	9.5	3.1
Queue Length 50th (ft)	22	0	~118	54	41	0
Queue Length 95th (ft)	41	15	#239	87	69	33
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	678	326	1415	1415	837
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.11	1.22	0.47	0.38	0.41

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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	211	2012	10	353	450
v/c Ratio	0.12	0.33	1.42	0.02	0.98	0.32
Control Delay	8.2	10.1	212.5	4.8	61.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	10.1	212.5	4.8	61.9	9.0
Queue Length 50th (ft)	12	30	~343	0	37	34
Queue Length 95th (ft)	30	65	#456	6	#103	57
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.33	1.42	0.02	0.98	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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1055	487	1779
v/c Ratio	0.76	0.24	0.69
Control Delay	14.7	6.7	11.7
Queue Delay	0.0	0.0	1.9
Total Delay	14.7	6.7	13.6
Queue Length 50th (ft)	92	22	89
Queue Length 95th (ft)	#153	31	121
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	4	0	588
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.76	0.24	0.90

Intersection Summary

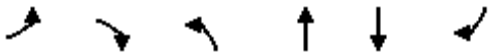
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	391	414	128	210	182	270	18	1611	181
v/c Ratio	0.88	0.87	0.44	0.28	0.98	0.19	0.04	0.84	0.28
Control Delay	38.6	35.0	14.7	8.9	83.9	7.7	7.8	16.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	35.0	14.7	8.9	83.9	7.7	7.8	16.6	3.1
Queue Length 50th (ft)	80	83	19	28	37	17	2	117	0
Queue Length 95th (ft)	#215	#226	55	60	#131	34	10	#185	29
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	443	477	292	744	186	1413	436	1921	653
Starvation Cap Reductn	0	0	0	0	0	0	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	0.88	0.87	0.44	0.28	0.98	0.19	0.04	0.84	0.28

Intersection Summary

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	551	42	102	210	1279	243
v/c Ratio	0.40	0.07	0.55	0.15	0.90	0.31
Control Delay	9.7	6.2	25.4	8.0	23.6	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	6.2	25.4	8.0	23.6	2.8
Queue Length 50th (ft)	42	4	16	14	132	0
Queue Length 95th (ft)	70	16	#71	28	#248	28
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	641	186	1415	1415	779
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.07	0.55	0.15	0.90	0.31

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	486	75	300	5	796	2975
v/c Ratio	0.69	0.11	0.21	0.01	0.97	2.10
Control Delay	16.8	3.1	8.4	5.2	41.2	516.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.8	3.1	8.4	5.2	41.2	516.2
Queue Length 50th (ft)	84	0	21	0	84	~597
Queue Length 95th (ft)	#177	15	39	4	#180	#721
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	678	1415	636	822	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.11	0.21	0.01	0.97	2.10

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1121	515	1887
v/c Ratio	0.81	0.25	0.74
Control Delay	16.8	6.7	12.3
Queue Delay	0.0	0.0	15.5
Total Delay	16.8	6.7	27.8
Queue Length 50th (ft)	102	23	97
Queue Length 95th (ft)	#200	32	131
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	4	0	708
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.81	0.25	1.02

Intersection Summary

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

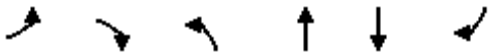


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	409	447	136	223	191	285	20	1710	191
v/c Ratio	0.93	0.95	0.52	0.30	1.03	0.20	0.05	0.89	0.29
Control Delay	47.3	48.5	18.4	9.1	96.8	7.8	7.8	19.5	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	48.5	18.4	9.1	96.8	7.8	7.8	19.5	3.1
Queue Length 50th (ft)	86	93	22	30	~42	18	3	128	0
Queue Length 95th (ft)	#228	#250	#77	63	#137	36	11	#226	29
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	438	471	264	744	186	1413	430	1921	659
Starvation Cap Reductn	0	0	0	0	0	0	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	0.93	0.95	0.52	0.30	1.03	0.20	0.05	0.89	0.29

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	584	46	108	221	1358	258
v/c Ratio	0.43	0.07	0.58	0.16	0.96	0.33
Control Delay	9.9	6.7	27.5	8.1	31.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	6.7	27.5	8.1	31.1	2.9
Queue Length 50th (ft)	45	5	18	15	145	0
Queue Length 95th (ft)	74	17	#75	30	#272	29
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	639	186	1415	1415	788
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.07	0.58	0.16	0.96	0.33

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	515	79	317	7	845	3158
v/c Ratio	0.73	0.12	0.22	0.01	1.04	2.23
Control Delay	18.6	3.1	8.4	5.0	61.5	573.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	3.1	8.4	5.0	61.5	573.8
Queue Length 50th (ft)	91	0	23	0	~100	~645
Queue Length 95th (ft)	#214	16	41	5	#197	#770
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	680	1415	637	809	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.12	0.22	0.01	1.04	2.23

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	652	1530	773
v/c Ratio	0.50	0.75	0.30
Control Delay	10.5	9.1	8.6
Queue Delay	0.0	0.3	0.0
Total Delay	10.5	9.4	8.6
Queue Length 50th (ft)	52	57	31
Queue Length 95th (ft)	85	m92	47
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1316	2034	2563
Starvation Cap Reductn	0	131	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.50	0.80	0.30

Intersection Summary

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

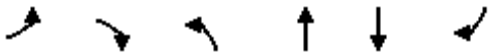


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	307	381	35	510	285	928	24	975	391
v/c Ratio	1.39	1.48	0.11	0.69	1.53	0.66	0.13	0.50	0.58
Control Delay	221.5	256.8	8.7	16.2	285.6	12.3	9.8	7.9	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.5	256.8	8.7	16.2	285.6	12.3	9.8	7.9	8.3
Queue Length 50th (ft)	~103	~132	5	87	~96	81	3	44	29
Queue Length 95th (ft)	#216	#210	17	#181	#170	127	14	70	91
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	221	257	321	744	186	1415	186	1938	675
Starvation Cap Reductn	0	0	0	0	0	0	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	1.39	1.48	0.11	0.69	1.53	0.66	0.13	0.50	0.58

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	342	80	839	577	308	246
v/c Ratio	0.25	0.12	2.00	0.41	0.22	0.32
Control Delay	8.6	3.1	475.4	9.7	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	3.1	475.4	9.7	8.4	2.8
Queue Length 50th (ft)	24	0	~315	45	22	0
Queue Length 95th (ft)	43	16	#477	74	40	28
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	681	420	1415	1415	780
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.12	2.00	0.41	0.22	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	113	112	3086	9	233	359
v/c Ratio	0.16	0.18	2.18	0.01	0.65	0.25
Control Delay	8.5	8.7	551.2	4.9	21.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	8.7	551.2	4.9	21.6	8.6
Queue Length 50th (ft)	15	15	~626	0	20	26
Queue Length 95th (ft)	37	37	#751	5	#62	46
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	638	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.18	2.18	0.01	0.65	0.25

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	686	1607	810
v/c Ratio	0.52	0.79	0.32
Control Delay	10.8	10.0	8.7
Queue Delay	0.0	0.5	0.0
Total Delay	10.8	10.5	8.7
Queue Length 50th (ft)	55	66	33
Queue Length 95th (ft)	90	m92	49
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1316	2034	2563
Starvation Cap Reductn	0	131	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.84	0.32

Intersection Summary

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

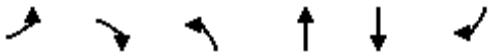


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	401	36	538	300	974	25	1023	410
v/c Ratio	1.61	1.71	0.12	0.72	1.61	0.69	0.13	0.53	0.62
Control Delay	319.0	354.7	8.8	17.9	319.8	12.9	9.9	8.4	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	319.0	354.7	8.8	17.9	319.8	12.9	9.9	8.4	9.7
Queue Length 50th (ft)	~117	~150	5	94	~104	86	3	48	36
Queue Length 95th (ft)	#198	#235	17	#220	#180	136	15	77	108
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	200	235	304	744	186	1414	186	1926	664
Starvation Cap Reductn	0	0	0	0	0	0	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	1.61	1.71	0.12	0.72	1.61	0.69	0.13	0.53	0.62

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	360	85	878	605	322	258
v/c Ratio	0.26	0.12	2.12	0.43	0.23	0.33
Control Delay	8.7	3.1	527.8	9.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	3.1	527.8	9.9	8.5	2.9
Queue Length 50th (ft)	25	0	~336	47	23	0
Queue Length 95th (ft)	45	16	#500	78	42	29
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	684	415	1415	1415	788
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.12	2.12	0.43	0.23	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	116	117	3239	10	245	375
v/c Ratio	0.16	0.18	2.29	0.02	0.68	0.27
Control Delay	8.5	8.8	599.4	4.8	23.5	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	8.8	599.4	4.8	23.5	8.7
Queue Length 50th (ft)	16	16	~666	0	21	27
Queue Length 95th (ft)	37	38	#792	6	#67	48
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.18	2.29	0.02	0.68	0.27

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	739	1116	718
v/c Ratio	0.55	0.55	0.28
Control Delay	10.8	6.6	8.5
Queue Delay	0.0	0.1	0.0
Total Delay	10.8	6.7	8.5
Queue Length 50th (ft)	58	35	29
Queue Length 95th (ft)	95	54	44
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1344	2034	2563
Starvation Cap Reductn	0	139	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.55	0.59	0.28

Intersection Summary

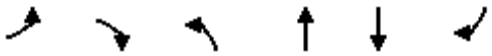


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	364	412	52	422	311	797	20	803	262
v/c Ratio	1.26	1.32	0.18	0.57	1.39	0.56	0.10	0.40	0.37
Control Delay	164.3	183.2	9.7	12.7	223.6	11.0	9.0	6.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	164.3	183.2	9.7	12.7	223.6	11.0	9.0	6.3	3.3
Queue Length 50th (ft)	~115	~134	7	66	~100	66	3	29	0
Queue Length 95th (ft)	#237	#270	23	128	#208	106	12	51	34
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	288	313	294	743	223	1414	207	1985	702
Starvation Cap Reductn	0	0	0	0	0	0	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	1.26	1.32	0.18	0.57	1.39	0.56	0.10	0.40	0.37

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	336	79	435	710	567	361
v/c Ratio	0.24	0.12	1.40	0.50	0.40	0.43
Control Delay	8.6	3.1	218.1	10.6	9.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	3.1	218.1	10.6	9.6	3.1
Queue Length 50th (ft)	24	0	~140	58	44	0
Queue Length 95th (ft)	43	16	#264	93	73	34
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	680	311	1415	1415	849
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.12	1.40	0.50	0.40	0.43

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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	108	225	2166	11	372	489
v/c Ratio	0.15	0.36	1.53	0.02	1.03	0.35
Control Delay	8.4	10.4	261.1	4.7	75.7	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.4	261.1	4.7	75.7	9.2
Queue Length 50th (ft)	14	33	~384	0	~42	37
Queue Length 95th (ft)	35	70	#499	6	#109	62
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.36	1.53	0.02	1.03	0.35

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	859	1290	826
v/c Ratio	0.64	0.63	0.32
Control Delay	12.3	7.6	8.7
Queue Delay	0.0	0.1	0.0
Total Delay	12.3	7.7	8.7
Queue Length 50th (ft)	73	41	34
Queue Length 95th (ft)	117	76	50
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1337	2034	2563
Starvation Cap Reductn	0	139	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.68	0.32

Intersection Summary

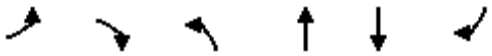


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	414	486	60	489	361	921	23	930	305
v/c Ratio	1.75	1.87	0.26	0.66	1.94	0.65	0.12	0.47	0.44
Control Delay	372.4	424.0	11.7	14.9	461.3	12.2	9.7	7.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	372.4	424.0	11.7	14.9	461.3	12.2	9.7	7.2	4.7
Queue Length 50th (ft)	~155	~190	8	81	~134	80	3	38	8
Queue Length 95th (ft)	#245	#281	28	#159	#222	127	14	63	48
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	237	260	231	743	186	1414	186	1978	695
Starvation Cap Reductn	0	0	0	0	0	0	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	1.75	1.87	0.26	0.66	1.94	0.65	0.12	0.47	0.44

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	389	92	503	824	657	418
v/c Ratio	0.28	0.13	1.88	0.58	0.46	0.47
Control Delay	8.8	3.0	430.3	11.4	10.2	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	3.0	430.3	11.4	10.2	3.3
Queue Length 50th (ft)	28	0	~185	70	53	0
Queue Length 95th (ft)	49	17	#275	111	85	36
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	688	267	1415	1415	884
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.13	1.88	0.58	0.46	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	123	261	2511	12	430	565
v/c Ratio	0.17	0.41	1.77	0.02	1.19	0.40
Control Delay	8.6	11.1	370.0	4.6	130.5	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	11.1	370.0	4.6	130.5	9.6
Queue Length 50th (ft)	17	39	~475	0	~64	44
Queue Length 95th (ft)	39	82	#594	6	#128	72
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	640	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.41	1.77	0.02	1.19	0.40

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1071	491	1797
v/c Ratio	0.77	0.24	0.70
Control Delay	15.2	6.7	11.8
Queue Delay	0.0	0.0	2.5
Total Delay	15.2	6.7	14.3
Queue Length 50th (ft)	95	22	90
Queue Length 95th (ft)	#160	31	122
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	4	0	612
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.77	0.24	0.92

Intersection Summary

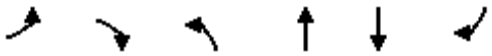
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	395	419	129	211	183	276	18	1632	182
v/c Ratio	0.89	0.88	0.45	0.28	0.98	0.20	0.04	0.85	0.28
Control Delay	39.9	36.4	15.0	9.0	85.3	7.8	7.8	17.1	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	36.4	15.0	9.0	85.3	7.8	7.8	17.1	3.1
Queue Length 50th (ft)	81	84	20	28	38	18	2	119	0
Queue Length 95th (ft)	#217	#228	56	61	#131	35	10	#209	29
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	443	477	288	743	186	1413	433	1921	654
Starvation Cap Reductn	0	0	0	0	0	0	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	0.89	0.88	0.45	0.28	0.98	0.20	0.04	0.85	0.28

Intersection Summary

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	570	43	103	228	1315	251
v/c Ratio	0.42	0.07	0.55	0.16	0.93	0.32
Control Delay	9.8	6.4	25.7	8.1	26.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	6.4	25.7	8.1	26.5	2.9
Queue Length 50th (ft)	43	4	17	16	137	0
Queue Length 95th (ft)	72	16	#71	31	#259	28
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	640	186	1415	1415	783
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.07	0.55	0.16	0.93	0.32

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	491	75	315	5	815	3014
v/c Ratio	0.69	0.11	0.22	0.01	1.01	2.13
Control Delay	17.1	3.1	8.4	5.2	50.4	528.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	3.1	8.4	5.2	50.4	528.5
Queue Length 50th (ft)	85	0	22	0	~88	~607
Queue Length 95th (ft)	#200	15	41	4	#188	#731
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	678	1415	636	810	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.11	0.22	0.01	1.01	2.13

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	1126	515	1887
v/c Ratio	0.81	0.25	0.74
Control Delay	16.9	6.7	12.3
Queue Delay	0.0	0.0	16.9
Total Delay	17.0	6.7	29.2
Queue Length 50th (ft)	102	24	97
Queue Length 95th (ft)	#201	32	131
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1387	2034	2563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	4	0	716
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.81	0.25	1.02

Intersection Summary

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

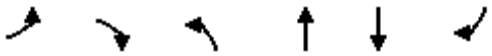


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	409	447	136	223	191	289	20	1714	191
v/c Ratio	0.93	0.95	0.52	0.30	1.03	0.20	0.05	0.89	0.29
Control Delay	47.3	48.5	18.4	9.1	96.8	7.8	7.8	19.7	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	48.5	18.4	9.1	96.8	7.8	7.8	19.7	3.1
Queue Length 50th (ft)	86	93	22	30	~42	19	3	129	0
Queue Length 95th (ft)	#228	#250	#77	63	#137	36	11	#227	29
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	438	471	264	744	186	1413	428	1921	659
Starvation Cap Reductn	0	0	0	0	0	0	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	0.93	0.95	0.52	0.30	1.03	0.20	0.05	0.89	0.29

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	598	46	108	238	1380	263
v/c Ratio	0.44	0.07	0.58	0.17	0.98	0.33
Control Delay	10.0	6.8	27.5	8.1	34.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	6.8	27.5	8.1	34.1	2.9
Queue Length 50th (ft)	46	5	18	16	148	0
Queue Length 95th (ft)	76	17	#75	32	#278	29
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	638	186	1415	1415	791
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.07	0.58	0.17	0.98	0.33

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	515	79	328	7	855	3166
v/c Ratio	0.73	0.12	0.23	0.01	1.07	2.24
Control Delay	18.6	3.1	8.5	5.0	69.6	576.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	3.1	8.5	5.0	69.6	576.4
Queue Length 50th (ft)	91	0	23	0	~117	~647
Queue Length 95th (ft)	#214	16	43	5	#201	#772
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	680	1415	637	800	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.12	0.23	0.01	1.07	2.24

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	653	1530	773
v/c Ratio	0.50	0.75	0.30
Control Delay	10.5	9.1	8.6
Queue Delay	0.0	0.3	0.0
Total Delay	10.5	9.4	8.6
Queue Length 50th (ft)	52	57	31
Queue Length 95th (ft)	85	m92	47
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1316	2034	2563
Starvation Cap Reductn	0	131	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.50	0.80	0.30

Intersection Summary

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

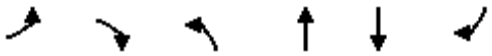


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	307	381	35	510	285	929	24	976	391
v/c Ratio	1.39	1.48	0.11	0.69	1.53	0.66	0.13	0.50	0.58
Control Delay	221.5	256.8	8.7	16.2	285.6	12.3	9.8	7.9	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.5	256.8	8.7	16.2	285.6	12.3	9.8	7.9	8.3
Queue Length 50th (ft)	~103	~132	5	87	~96	81	3	44	29
Queue Length 95th (ft)	#216	#210	17	#181	#170	127	14	70	91
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	221	257	321	744	186	1414	186	1938	675
Starvation Cap Reductn	0	0	0	0	0	0	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	1.39	1.48	0.11	0.69	1.53	0.66	0.13	0.50	0.58

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	346	80	839	582	315	248
v/c Ratio	0.25	0.12	2.01	0.41	0.22	0.32
Control Delay	8.6	3.1	479.6	9.7	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	3.1	479.6	9.7	8.4	2.8
Queue Length 50th (ft)	24	0	~315	45	22	0
Queue Length 95th (ft)	44	16	#477	75	41	28
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	681	418	1415	1415	782
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.12	2.01	0.41	0.22	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	113	112	3088	9	237	362
v/c Ratio	0.16	0.18	2.18	0.01	0.66	0.26
Control Delay	8.5	8.7	551.8	4.9	22.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	8.7	551.8	4.9	22.2	8.6
Queue Length 50th (ft)	15	15	~627	0	20	26
Queue Length 95th (ft)	37	37	#751	5	#63	46
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	638	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.18	2.18	0.01	0.66	0.26

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	687	1607	810
v/c Ratio	0.52	0.79	0.32
Control Delay	10.8	10.0	8.7
Queue Delay	0.0	0.5	0.0
Total Delay	10.8	10.5	8.7
Queue Length 50th (ft)	55	66	33
Queue Length 95th (ft)	90	m92	49
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1316	2034	2563
Starvation Cap Reductn	0	131	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.84	0.32

Intersection Summary

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

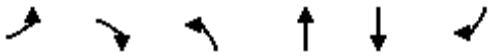


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	401	36	538	300	975	25	1024	410
v/c Ratio	1.61	1.71	0.12	0.72	1.61	0.69	0.13	0.53	0.62
Control Delay	319.0	354.7	8.8	17.9	319.8	12.9	9.9	8.4	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	319.0	354.7	8.8	17.9	319.8	12.9	9.9	8.4	9.7
Queue Length 50th (ft)	~117	~150	5	94	~104	86	3	48	36
Queue Length 95th (ft)	#198	#235	17	#220	#180	136	15	77	108
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	200	235	304	744	186	1414	186	1926	664
Starvation Cap Reductn	0	0	0	0	0	0	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	1.61	1.71	0.12	0.72	1.61	0.69	0.13	0.53	0.62

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	363	85	878	610	329	260
v/c Ratio	0.26	0.12	2.13	0.43	0.23	0.33
Control Delay	8.7	3.1	534.7	9.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	3.1	534.7	9.9	8.5	2.9
Queue Length 50th (ft)	26	0	~337	48	23	0
Queue Length 95th (ft)	46	16	#501	78	43	29
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	684	412	1415	1415	789
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.12	2.13	0.43	0.23	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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	116	117	3241	10	249	378
v/c Ratio	0.16	0.18	2.29	0.02	0.69	0.27
Control Delay	8.5	8.8	600.0	4.8	24.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	8.8	600.0	4.8	24.2	8.7
Queue Length 50th (ft)	16	16	~667	0	22	27
Queue Length 95th (ft)	37	38	#792	6	#68	48
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.18	2.29	0.02	0.69	0.27

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	743	1116	718
v/c Ratio	0.55	0.55	0.28
Control Delay	10.8	6.6	8.5
Queue Delay	0.0	0.1	0.0
Total Delay	10.8	6.7	8.5
Queue Length 50th (ft)	58	35	29
Queue Length 95th (ft)	96	54	44
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1344	2034	2563
Starvation Cap Reductn	0	139	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.55	0.59	0.28

Intersection Summary

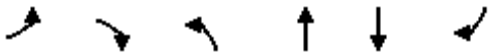


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	364	412	52	422	311	799	20	805	262
v/c Ratio	1.26	1.32	0.18	0.57	1.40	0.57	0.10	0.41	0.37
Control Delay	164.3	183.2	9.7	12.7	226.3	11.1	9.0	6.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	164.3	183.2	9.7	12.7	226.3	11.1	9.0	6.3	3.3
Queue Length 50th (ft)	~115	~134	7	66	~100	66	3	29	0
Queue Length 95th (ft)	#237	#270	23	128	#208	105	12	51	34
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	288	313	294	743	222	1414	206	1985	702
Starvation Cap Reductn	0	0	0	0	0	0	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	1.26	1.32	0.18	0.57	1.40	0.57	0.10	0.41	0.37

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	343	79	435	720	586	365
v/c Ratio	0.25	0.12	1.45	0.51	0.41	0.43
Control Delay	8.6	3.1	238.4	10.6	9.8	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	3.1	238.4	10.6	9.8	3.1
Queue Length 50th (ft)	24	0	~142	59	46	0
Queue Length 95th (ft)	43	16	#267	94	75	34
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	680	301	1415	1415	852
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.12	1.45	0.51	0.41	0.43

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.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	108	225	2173	11	380	497
v/c Ratio	0.15	0.36	1.54	0.02	1.05	0.35
Control Delay	8.4	10.4	263.4	4.7	82.2	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.4	263.4	4.7	82.2	9.3
Queue Length 50th (ft)	14	33	~386	0	~46	37
Queue Length 95th (ft)	35	70	#501	6	#112	63
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	639	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.36	1.54	0.02	1.05	0.35

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.



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	862	1290	826
v/c Ratio	0.64	0.63	0.32
Control Delay	12.3	7.6	8.7
Queue Delay	0.0	0.1	0.0
Total Delay	12.3	7.8	8.7
Queue Length 50th (ft)	73	41	34
Queue Length 95th (ft)	117	77	50
Internal Link Dist (ft)	720	166	278
Turn Bay Length (ft)			
Base Capacity (vph)	1337	2034	2563
Starvation Cap Reductn	0	140	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.68	0.32

Intersection Summary

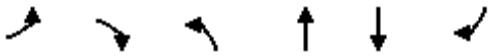


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	414	486	60	489	361	924	23	932	305
v/c Ratio	1.75	1.87	0.26	0.66	1.94	0.65	0.12	0.47	0.44
Control Delay	372.4	424.0	11.7	14.9	461.3	12.3	9.7	7.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	372.4	424.0	11.7	14.9	461.3	12.3	9.7	7.2	4.7
Queue Length 50th (ft)	~155	~190	8	81	~134	81	3	38	8
Queue Length 95th (ft)	#245	#281	28	#159	#222	127	14	63	48
Internal Link Dist (ft)		501		190		466		212	
Turn Bay Length (ft)									
Base Capacity (vph)	237	260	231	743	186	1414	186	1978	695
Starvation Cap Reductn	0	0	0	0	0	0	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	1.75	1.87	0.26	0.66	1.94	0.65	0.12	0.47	0.44

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	397	92	503	834	675	423
v/c Ratio	0.29	0.13	1.94	0.59	0.48	0.48
Control Delay	8.9	3.0	456.2	11.5	10.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	3.0	456.2	11.5	10.3	3.3
Queue Length 50th (ft)	28	0	~187	71	54	0
Queue Length 95th (ft)	50	17	#279	113	88	37
Internal Link Dist (ft)	500			402	406	
Turn Bay Length (ft)						
Base Capacity (vph)	1373	688	259	1415	1415	887
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.13	1.94	0.59	0.48	0.48

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.

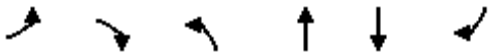


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	123	261	2517	12	439	573
v/c Ratio	0.17	0.41	1.78	0.02	1.22	0.40
Control Delay	8.6	11.1	371.9	4.6	140.2	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	11.1	371.9	4.6	140.2	9.7
Queue Length 50th (ft)	17	39	~476	0	~66	45
Queue Length 95th (ft)	39	82	#596	6	#131	74
Internal Link Dist (ft)	356		854			1820
Turn Bay Length (ft)						
Base Capacity (vph)	708	633	1415	640	361	1415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.41	1.78	0.02	1.22	0.40

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.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	38	81	175	1106	211
Future Volume (veh/h)	478	38	81	175	1106	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	520	41	88	190	1202	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	215	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	374	3647	3647	1585
Grp Volume(v), veh/h	520	41	88	190	1202	229
Grp Sat Flow(s),veh/h/ln	1728	1585	374	1777	1777	1585
Q Serve(g_s), s	4.3	0.6	3.7	1.4	12.3	4.1
Cycle Q Clear(g_c), s	4.3	0.6	16.0	1.4	12.3	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	215	1421	1421	634
V/C Ratio(X)	0.38	0.06	0.41	0.13	0.85	0.36
Avail Cap(c_a), veh/h	1382	634	215	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.5	7.4	19.3	7.6	10.9	8.4
Incr Delay (d2), s/veh	0.8	0.2	5.7	0.2	6.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	1.1	0.4	4.7	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	7.6	24.9	7.8	17.2	10.0
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	561			278	1431	
Approach Delay, s/veh	9.1			13.2	16.1	
Approach LOS	A			B	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		6.3		14.3
Green Ext Time (p_c), s		0.0		1.5		1.3

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	402	65	236	5	694	2579
Future Volume (veh/h)	402	65	236	5	694	2579
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	437	71	257	0	754	2803
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1129	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2178	3647
Grp Volume(v), veh/h	437	71	257	0	754	2803
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1089	1777
Q Serve(g_s), s	7.8	1.1	1.9	0.0	13.7	16.0
Cycle Q Clear(g_c), s	7.8	1.1	1.9	0.0	15.6	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1129	1421
V/C Ratio(X)	0.61	0.11	0.18		0.67	1.97
Avail Cap(c_a), veh/h	713	634	1421		1129	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	7.5	7.8	0.0	12.8	12.0
Incr Delay (d2), s/veh	3.9	0.4	0.3	0.0	3.1	439.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.3	0.6	0.0	3.0	91.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	7.9	8.0	0.0	15.9	451.9
LnGrp LOS	B	A	A		B	F
Approach Vol, veh/h	508		257	A		3557
Approach Delay, s/veh	12.7		8.0			359.5
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	3.9			18.0	9.8
Green Ext Time (p_c), s	1.2			0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	297.8
HCM 6th LOS	F

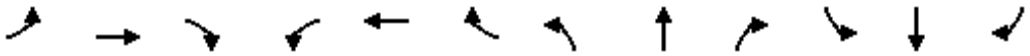
Notes

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



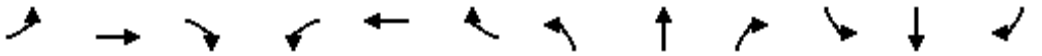
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	809	111	397	0	0	1525
Future Volume (vph)	809	111	397	0	0	1525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	879	121	432	0	0	1658
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	972	0	432	0	0	1658
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.29		0.08			c0.26
v/s Ratio Perm						
v/c Ratio	0.72		0.21			0.65
Uniform Delay, d1	10.1		7.9			9.7
Progression Factor	1.00		0.82			1.00
Incremental Delay, d2	3.2		0.2			1.3
Delay (s)	13.3		6.7			11.0
Level of Service	B		A			B
Approach Delay (s)	13.3		6.7			11.0
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



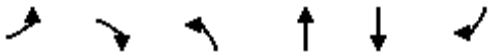
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	355	193	0	0	0	28	270	154	193	1679	463
Future Volume (vph)	140	355	193	0	0	0	28	270	154	193	1679	463
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.95		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4808		1770	4920	
Flt Permitted		0.99					0.25	1.00		0.48	1.00	
Satd. Flow (perm)		3356					466	4808		890	4920	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	386	210	0	0	0	30	293	167	210	1825	503
RTOR Reduction (vph)	0	1	0	0	0	0	0	100	0	0	124	0
Lane Group Flow (vph)	0	747	0	0	0	0	30	360	0	210	2204	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1923		356	1968	
v/s Ratio Prot								0.07			c0.45	
v/s Ratio Perm		0.22					0.06			0.24		
v/c Ratio		0.56					0.16	0.19		0.59	1.12	
Uniform Delay, d1		9.3					7.7	7.8		9.4	12.0	
Progression Factor		1.00					1.00	1.00		0.67	0.59	
Incremental Delay, d2		1.7					1.9	0.2		5.2	59.6	
Delay (s)		10.9					9.5	8.0		11.5	66.6	
Level of Service		B					A	A		B	E	
Approach Delay (s)		10.9			0.0			8.1			62.1	
Approach LOS		B			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	44.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	51	92	112	170	13	158	202	15	16	1371	174
Future Volume (vph)	560	51	92	112	170	13	158	202	15	16	1371	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1652		1770	1843		1770	3503		1770	4797	1362
Flt Permitted	0.63	0.70		0.42	1.00		0.25	1.00		0.60	1.00	1.00
Satd. Flow (perm)	1120	1197		777	1843		466	3503		1127	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	609	55	100	122	185	14	172	220	16	17	1490	189
RTOR Reduction (vph)	0	4	0	0	7	0	0	10	0	0	3	102
Lane Group Flow (vph)	371	389	0	122	192	0	172	226	0	17	1506	68
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	448	478		310	737		186	1401		450	1918	544
v/s Ratio Prot					0.10			0.06			0.31	
v/s Ratio Perm	c0.33	0.33		0.16			c0.37			0.02		0.05
v/c Ratio	0.83	0.81		0.39	0.26		0.92	0.16		0.04	0.79	0.12
Uniform Delay, d1	10.8	10.7		8.5	8.0		11.4	7.7		7.3	10.5	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	16.0	14.1		3.7	0.9		48.7	0.2		0.2	3.3	0.5
Delay (s)	26.8	24.8		12.3	8.9		60.2	7.9		7.5	13.8	8.1
Level of Service	C	C		B	A		E	A		A	B	A
Approach Delay (s)		25.8			10.2			30.0			13.2	
Approach LOS		C			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	294	70	668	477	244	211
Future Volume (veh/h)	294	70	668	477	244	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	76	726	518	265	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	498	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	903	3647	3647	1585
Grp Volume(v), veh/h	320	76	726	518	265	229
Grp Sat Flow(s),veh/h/ln	1728	1585	903	1777	1777	1585
Q Serve(g_s), s	2.4	1.2	14.1	4.1	1.9	4.1
Cycle Q Clear(g_c), s	2.4	1.2	16.0	4.1	1.9	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	498	1421	1421	634
V/C Ratio(X)	0.23	0.12	1.46	0.36	0.19	0.36
Avail Cap(c_a), veh/h	1382	634	498	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.9	7.6	15.5	8.4	7.8	8.4
Incr Delay (d2), s/veh	0.4	0.4	217.5	0.7	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	34.1	1.3	0.6	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	7.9	233.0	9.2	8.1	10.0
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	396			1244	494	
Approach Delay, s/veh	8.3			139.8	9.0	
Approach LOS	A			F	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.4		6.1
Green Ext Time (p_c), s		0.0		1.1		1.8

Intersection Summary	
HCM 6th Ctrl Delay	85.1
HCM 6th LOS	F



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	97	2574	8	198	276
Future Volume (veh/h)	48	97	2574	8	198	276
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	105	2798	0	215	300
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	189	3647
Grp Volume(v), veh/h	52	105	2798	0	215	300
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	94	1777
Q Serve(g_s), s	0.7	1.7	16.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	0.7	1.7	16.0	0.0	16.0	2.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.07	0.17	1.97		0.60	0.21
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	7.7	12.0	0.0	20.0	7.9
Incr Delay (d2), s/veh	0.2	0.6	438.3	0.0	7.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	91.0	0.0	1.2	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	8.3	450.3	0.0	27.1	8.2
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	157		2798	A		515
Approach Delay, s/veh	8.1		450.3			16.1
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.7
Green Ext Time (p_c), s	0.0				0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	365.9
HCM 6th LOS	F

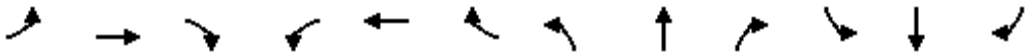
Notes

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



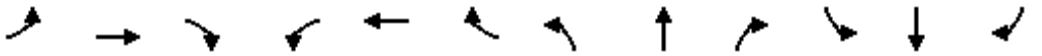
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	311	251	1283	0	0	625
Future Volume (vph)	311	251	1283	0	0	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3281		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3281		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	338	273	1395	0	0	679
RTOR Reduction (vph)	5	0	0	0	0	0
Lane Group Flow (vph)	606	0	1395	0	0	679
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.18		c0.27			0.11
v/s Ratio Perm						
v/c Ratio	0.46		0.69			0.26
Uniform Delay, d1	8.8		9.9			8.1
Progression Factor	1.00		0.68			1.00
Incremental Delay, d2	1.2		1.3			0.3
Delay (s)	10.0		8.0			8.3
Level of Service	B		A			A
Approach Delay (s)	10.0		8.0			8.3
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	367	88	0	0	0	183	1046	430	75	591	272
Future Volume (vph)	237	367	88	0	0	0	183	1046	430	75	591	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.95	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3413					1770	4863		1770	4845	
Flt Permitted		0.98					0.26	1.00		0.25	1.00	
Satd. Flow (perm)		3413					488	4863		466	4845	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	258	399	96	0	0	0	199	1137	467	82	642	296
RTOR Reduction (vph)	0	29	0	0	0	0	0	179	0	0	178	0
Lane Group Flow (vph)	0	724	0	0	0	0	199	1425	0	82	760	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					195	1945		186	1938	
v/s Ratio Prot								0.29			0.16	
v/s Ratio Perm		0.21					c0.41			0.18		
v/c Ratio		0.53					1.02	0.73		0.44	0.39	
Uniform Delay, d1		9.1					12.0	10.2		8.7	8.5	
Progression Factor		1.00					1.00	1.00		0.65	0.56	
Incremental Delay, d2		1.5					69.9	2.5		7.1	0.6	
Delay (s)		10.6					81.9	12.7		12.8	5.4	
Level of Service		B					F	B		B	A	
Approach Delay (s)		10.6			0.0			20.3			6.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

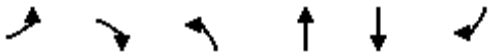


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	69	44	30	428	15	247	734	44	21	486	676
Future Volume (vph)	479	69	44	30	428	15	247	734	44	21	486	676
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	1.00		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3509		1770	4510	1362
Flt Permitted	0.34	0.39		0.47	1.00		0.26	1.00		0.25	1.00	1.00
Satd. Flow (perm)	608	671		868	1853		481	3509		471	4510	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	521	75	48	33	465	16	268	798	48	23	528	735
RTOR Reduction (vph)	0	14	0	0	3	0	0	11	0	0	143	143
Lane Group Flow (vph)	292	338	0	33	478	0	268	835	0	23	753	224
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	243	268		347	741		192	1403		188	1804	544
v/s Ratio Prot					0.26			0.24			0.17	
v/s Ratio Perm	0.48	c0.50		0.04			c0.56			0.05		0.16
v/c Ratio	1.20	1.26		0.10	0.65		1.40	0.60		0.12	0.42	0.41
Uniform Delay, d1	12.0	12.0		7.5	9.7		12.0	9.5		7.6	8.6	8.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	123.2	143.4		0.5	4.3		206.6	1.9		1.3	0.7	2.3
Delay (s)	135.2	155.4		8.0	14.0		218.6	11.3		8.9	9.4	10.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		146.3			13.6			61.2			9.8	
Approach LOS		F			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	288	69	369	609	480	311
Future Volume (veh/h)	288	69	369	609	480	311
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	313	75	401	662	522	338
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	371	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	643	3647	3647	1585
Grp Volume(v), veh/h	313	75	401	662	522	338
Grp Sat Flow(s),veh/h/ln	1728	1585	643	1777	1777	1585
Q Serve(g_s), s	2.4	1.2	11.9	5.5	4.1	6.5
Cycle Q Clear(g_c), s	2.4	1.2	16.0	5.5	4.1	6.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	371	1421	1421	634
V/C Ratio(X)	0.23	0.12	1.08	0.47	0.37	0.53
Avail Cap(c_a), veh/h	1382	634	371	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.9	7.6	16.9	8.8	8.4	9.2
Incr Delay (d2), s/veh	0.4	0.4	70.4	1.1	0.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	10.3	1.8	1.3	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	7.9	87.4	9.9	9.2	12.3
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	388			1063	860	
Approach Delay, s/veh	8.2			39.2	10.4	
Approach LOS	A			D	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.4		8.5
Green Ext Time (p_c), s		0.0		1.1		2.9

Intersection Summary		
HCM 6th Ctrl Delay		23.3
HCM 6th LOS		C



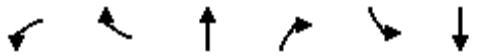
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	82	195	1854	9	318	409
Future Volume (veh/h)	82	195	1854	9	318	409
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	212	2015	0	346	445
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	412	3647
Grp Volume(v), veh/h	89	212	2015	0	346	445
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	206	1777
Q Serve(g_s), s	1.3	3.7	16.0	0.0	0.0	3.4
Cycle Q Clear(g_c), s	1.3	3.7	16.0	0.0	16.0	3.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.12	0.33	1.42		0.96	0.31
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	8.3	12.0	0.0	20.0	8.2
Incr Delay (d2), s/veh	0.4	1.4	192.1	0.0	38.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.2	42.4	0.0	3.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	9.7	204.1	0.0	58.6	8.8
LnGrp LOS	A	A	F		E	A
Approach Vol, veh/h	301		2015	A		791
Approach Delay, s/veh	9.2		204.1			30.6
Approach LOS	A		F			C

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0			18.0	5.7
Green Ext Time (p_c), s	0.0			0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	141.0
HCM 6th LOS	F

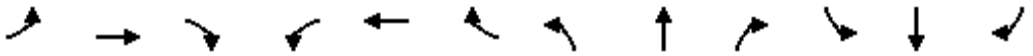
Notes

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



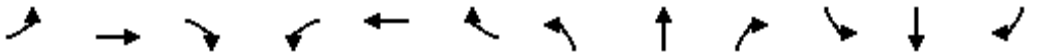
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	426	214	932	0	0	580
Future Volume (vph)	426	214	932	0	0	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3322		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3322		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	463	233	1013	0	0	630
RTOR Reduction (vph)	22	0	0	0	0	0
Lane Group Flow (vph)	674	0	1013	0	0	630
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1328		2034			2563
v/s Ratio Prot	c0.20		c0.20			0.10
v/s Ratio Perm						
v/c Ratio	0.51		0.50			0.25
Uniform Delay, d1	9.0		9.0			8.0
Progression Factor	1.00		0.60			1.00
Incremental Delay, d2	1.4		0.7			0.2
Delay (s)	10.4		6.1			8.2
Level of Service	B		A			A
Approach Delay (s)	10.4		6.1			8.2
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



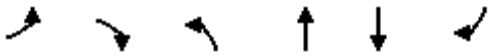
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	235	82	0	0	0	109	806	357	74	689	263
Future Volume (vph)	141	235	82	0	0	0	109	806	357	74	689	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.95		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4851		1770	4875	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4851		466	4875	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	153	255	89	0	0	0	118	876	388	80	749	286
RTOR Reduction (vph)	0	46	0	0	0	0	0	200	0	0	172	0
Lane Group Flow (vph)	0	451	0	0	0	0	118	1064	0	80	863	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1940		186	1950	
v/s Ratio Prot								0.22			0.18	
v/s Ratio Perm		0.13					c0.25			0.17		
v/c Ratio		0.33					0.63	0.55		0.43	0.44	
Uniform Delay, d1		8.3					9.6	9.2		8.7	8.7	
Progression Factor		1.00					1.00	1.00		0.72	0.65	
Incremental Delay, d2		0.7					15.4	1.1		6.8	0.7	
Delay (s)		9.0					25.0	10.3		13.1	6.4	
Level of Service		A					C	B		B	A	
Approach Delay (s)		9.0			0.0			11.6			6.9	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	569	61	38	45	337	28	269	640	31	17	454	454
Future Volume (vph)	569	61	38	45	337	28	269	640	31	17	454	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1842		1770	3514		1770	4565	1362
Flt Permitted	0.44	0.47		0.43	1.00		0.33	1.00		0.32	1.00	1.00
Satd. Flow (perm)	773	811		795	1842		618	3514		588	4565	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	618	66	41	49	366	30	292	696	34	18	493	493
RTOR Reduction (vph)	0	11	0	0	7	0	0	9	0	0	148	148
Lane Group Flow (vph)	340	374	0	49	389	0	292	721	0	18	592	98
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	309	324		318	736		247	1405		235	1826	544
v/s Ratio Prot					0.21			0.21			0.13	
v/s Ratio Perm	0.44	c0.46		0.06			c0.47			0.03		0.07
v/c Ratio	1.10	1.15		0.15	0.53		1.18	0.51		0.08	0.32	0.18
Uniform Delay, d1	12.0	12.0		7.7	9.1		12.0	9.1		7.4	8.3	7.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	80.8	98.9		1.0	2.7		115.5	1.3		0.6	0.5	0.7
Delay (s)	92.8	110.9		8.7	11.8		127.5	10.4		8.1	8.7	8.5
Level of Service	F	F		A	B		F	B		A	A	A
Approach Delay (s)		102.4			11.5			43.9			8.7	
Approach LOS		F			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	491	38	81	191	1127	216
Future Volume (veh/h)	491	38	81	191	1127	216
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	534	41	88	208	1225	235
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	211	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	364	3647	3647	1585
Grp Volume(v), veh/h	534	41	88	208	1225	235
Grp Sat Flow(s),veh/h/ln	1728	1585	364	1777	1777	1585
Q Serve(g_s), s	4.4	0.6	3.4	1.5	12.6	4.2
Cycle Q Clear(g_c), s	4.4	0.6	16.0	1.5	12.6	4.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	211	1421	1421	634
V/C Ratio(X)	0.39	0.06	0.42	0.15	0.86	0.37
Avail Cap(c_a), veh/h	1382	634	211	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.5	7.4	19.4	7.6	11.0	8.5
Incr Delay (d2), s/veh	0.8	0.2	6.0	0.2	7.1	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	1.1	0.5	4.9	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	7.6	25.4	7.9	18.1	10.1
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	575			296	1460	
Approach Delay, s/veh	9.2			13.1	16.8	
Approach LOS	A			B	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		6.4		14.6
Green Ext Time (p_c), s		0.0		1.6		1.1

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	402	65	246	5	704	2587
Future Volume (veh/h)	402	65	246	5	704	2587
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	437	71	267	0	765	2812
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1118	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2158	3647
Grp Volume(v), veh/h	437	71	267	0	765	2812
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1079	1777
Q Serve(g_s), s	7.8	1.1	1.9	0.0	14.1	16.0
Cycle Q Clear(g_c), s	7.8	1.1	1.9	0.0	16.0	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1118	1421
V/C Ratio(X)	0.61	0.11	0.19		0.68	1.98
Avail Cap(c_a), veh/h	713	634	1421		1118	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	7.5	7.8	0.0	13.0	12.0
Incr Delay (d2), s/veh	3.9	0.4	0.3	0.0	3.4	442.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.3	0.6	0.0	3.1	91.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	7.9	8.1	0.0	16.4	454.7
LnGrp LOS	B	A	A		B	F
Approach Vol, veh/h	508		267	A		3577
Approach Delay, s/veh	12.7		8.1			361.0
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	3.9			18.0	9.8
Green Ext Time (p_c), s	1.3			0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	298.7
HCM 6th LOS	F

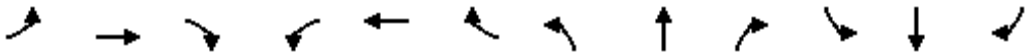
Notes

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



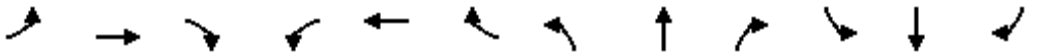
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	814	111	397	0	0	1525
Future Volume (vph)	814	111	397	0	0	1525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	885	121	432	0	0	1658
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	978	0	432	0	0	1658
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.29		0.08			c0.26
v/s Ratio Perm						
v/c Ratio	0.72		0.21			0.65
Uniform Delay, d1	10.1		7.9			9.7
Progression Factor	1.00		0.82			1.00
Incremental Delay, d2	3.3		0.2			1.3
Delay (s)	13.4		6.7			11.0
Level of Service	B		A			B
Approach Delay (s)	13.4		6.7			11.0
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	355	193	0	0	0	28	270	157	193	1684	463
Future Volume (vph)	140	355	193	0	0	0	28	270	157	193	1684	463
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.94		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4804		1770	4921	
Flt Permitted		0.99					0.25	1.00		0.48	1.00	
Satd. Flow (perm)		3356					466	4804		886	4921	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	386	210	0	0	0	30	293	171	210	1830	503
RTOR Reduction (vph)	0	1	0	0	0	0	0	103	0	0	124	0
Lane Group Flow (vph)	0	747	0	0	0	0	30	361	0	210	2209	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1921		354	1968	
v/s Ratio Prot								0.08			c0.45	
v/s Ratio Perm		0.22					0.06			0.24		
v/c Ratio		0.56					0.16	0.19		0.59	1.12	
Uniform Delay, d1		9.3					7.7	7.8		9.4	12.0	
Progression Factor		1.00					1.00	1.00		0.67	0.59	
Incremental Delay, d2		1.7					1.9	0.2		5.3	60.8	
Delay (s)		10.9					9.5	8.0		11.6	67.8	
Level of Service		B					A	A		B	E	
Approach Delay (s)		10.9			0.0			8.1			63.1	
Approach LOS		B			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	45.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

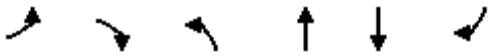


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	51	92	112	170	13	158	205	15	16	1375	174
Future Volume (vph)	560	51	92	112	170	13	158	205	15	16	1375	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1652		1770	1843		1770	3504		1770	4797	1362
Flt Permitted	0.63	0.70		0.42	1.00		0.25	1.00		0.60	1.00	1.00
Satd. Flow (perm)	1120	1197		777	1843		466	3504		1124	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	609	55	100	122	185	14	172	223	16	17	1495	189
RTOR Reduction (vph)	0	4	0	0	7	0	0	10	0	0	3	102
Lane Group Flow (vph)	371	389	0	122	192	0	172	229	0	17	1511	68
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	448	478		310	737		186	1401		449	1918	544
v/s Ratio Prot					0.10			0.07			0.31	
v/s Ratio Perm	c0.33	0.33		0.16			c0.37			0.02		0.05
v/c Ratio	0.83	0.81		0.39	0.26		0.92	0.16		0.04	0.79	0.12
Uniform Delay, d1	10.8	10.7		8.5	8.0		11.4	7.7		7.3	10.5	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	16.0	14.1		3.7	0.9		48.7	0.3		0.2	3.4	0.5
Delay (s)	26.8	24.8		12.3	8.9		60.2	8.0		7.5	13.9	8.1
Level of Service	C	C		B	A		E	A		A	B	A
Approach Delay (s)		25.8			10.2			29.8			13.2	
Approach LOS		C			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	297	70	668	481	251	213
Future Volume (veh/h)	297	70	668	481	251	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	76	726	523	273	232
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	493	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	894	3647	3647	1585
Grp Volume(v), veh/h	323	76	726	523	273	232
Grp Sat Flow(s),veh/h/ln	1728	1585	894	1777	1777	1585
Q Serve(g_s), s	2.5	1.2	14.0	4.1	2.0	4.1
Cycle Q Clear(g_c), s	2.5	1.2	16.0	4.1	2.0	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	493	1421	1421	634
V/C Ratio(X)	0.23	0.12	1.47	0.37	0.19	0.37
Avail Cap(c_a), veh/h	1382	634	493	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.9	7.6	15.6	8.4	7.8	8.4
Incr Delay (d2), s/veh	0.4	0.4	223.6	0.7	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	34.7	1.3	0.6	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	7.9	239.1	9.2	8.1	10.1
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	399			1249	505	
Approach Delay, s/veh	8.3			142.8	9.0	
Approach LOS	A			F	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.5		6.1
Green Ext Time (p_c), s		0.0		1.1		1.8

Intersection Summary	
HCM 6th Ctrl Delay	86.5
HCM 6th LOS	F



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	97	2576	8	202	279
Future Volume (veh/h)	48	97	2576	8	202	279
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	105	2800	0	220	303
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	188	3647
Grp Volume(v), veh/h	52	105	2800	0	220	303
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	94	1777
Q Serve(g_s), s	0.7	1.7	16.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	0.7	1.7	16.0	0.0	16.0	2.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.07	0.17	1.97		0.61	0.21
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	7.7	12.0	0.0	20.0	7.9
Incr Delay (d2), s/veh	0.2	0.6	439.0	0.0	7.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	91.1	0.0	1.3	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	8.3	451.0	0.0	27.5	8.2
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	157		2800	A		523
Approach Delay, s/veh	8.1		451.0			16.3
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.7
Green Ext Time (p_c), s	0.0				0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	365.7
HCM 6th LOS	F

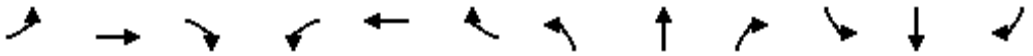
Notes

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



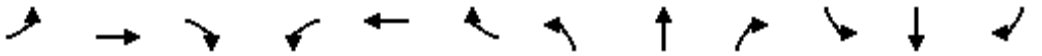
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	312	251	1283	0	0	625
Future Volume (vph)	312	251	1283	0	0	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3281		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3281		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	339	273	1395	0	0	679
RTOR Reduction (vph)	5	0	0	0	0	0
Lane Group Flow (vph)	607	0	1395	0	0	679
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.18		c0.27			0.11
v/s Ratio Perm						
v/c Ratio	0.46		0.69			0.26
Uniform Delay, d1	8.8		9.9			8.1
Progression Factor	1.00		0.68			1.00
Incremental Delay, d2	1.2		1.3			0.3
Delay (s)	10.0		8.0			8.3
Level of Service	B		A			A
Approach Delay (s)	10.0		8.0			8.3
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



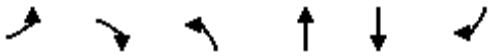
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	367	88	0	0	0	183	1046	431	75	592	272
Future Volume (vph)	237	367	88	0	0	0	183	1046	431	75	592	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.95	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3413					1770	4863		1770	4845	
Flt Permitted		0.98					0.26	1.00		0.25	1.00	
Satd. Flow (perm)		3413					488	4863		466	4845	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	258	399	96	0	0	0	199	1137	468	82	643	296
RTOR Reduction (vph)	0	29	0	0	0	0	0	179	0	0	178	0
Lane Group Flow (vph)	0	724	0	0	0	0	199	1426	0	82	761	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					195	1945		186	1938	
v/s Ratio Prot								0.29			0.16	
v/s Ratio Perm		0.21					c0.41			0.18		
v/c Ratio		0.53					1.02	0.73		0.44	0.39	
Uniform Delay, d1		9.1					12.0	10.2		8.7	8.5	
Progression Factor		1.00					1.00	1.00		0.65	0.56	
Incremental Delay, d2		1.5					69.9	2.5		7.1	0.6	
Delay (s)		10.6					81.9	12.7		12.8	5.4	
Level of Service		B					F	B		B	A	
Approach Delay (s)		10.6			0.0			20.3			6.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	69	44	30	428	15	247	735	44	21	487	676
Future Volume (vph)	479	69	44	30	428	15	247	735	44	21	487	676
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	1.00		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3509		1770	4510	1362
Flt Permitted	0.34	0.39		0.47	1.00		0.26	1.00		0.25	1.00	1.00
Satd. Flow (perm)	608	671		868	1853		480	3509		470	4510	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	521	75	48	33	465	16	268	799	48	23	529	735
RTOR Reduction (vph)	0	14	0	0	3	0	0	11	0	0	143	143
Lane Group Flow (vph)	292	338	0	33	478	0	268	836	0	23	754	224
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	243	268		347	741		192	1403		188	1804	544
v/s Ratio Prot					0.26			0.24			0.17	
v/s Ratio Perm	0.48	c0.50		0.04			c0.56			0.05		0.16
v/c Ratio	1.20	1.26		0.10	0.65		1.40	0.60		0.12	0.42	0.41
Uniform Delay, d1	12.0	12.0		7.5	9.7		12.0	9.5		7.6	8.6	8.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	123.2	143.4		0.5	4.3		206.6	1.9		1.3	0.7	2.3
Delay (s)	135.2	155.4		8.0	14.0		218.6	11.3		8.9	9.4	10.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		146.3			13.6			61.2			9.8	
Approach LOS		F			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	293	69	367	615	495	314
Future Volume (veh/h)	293	69	367	615	495	314
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	318	75	399	668	538	341
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	365	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	631	3647	3647	1585
Grp Volume(v), veh/h	318	75	399	668	538	341
Grp Sat Flow(s),veh/h/ln	1728	1585	631	1777	1777	1585
Q Serve(g_s), s	2.4	1.2	11.7	5.6	4.3	6.6
Cycle Q Clear(g_c), s	2.4	1.2	16.0	5.6	4.3	6.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	365	1421	1421	634
V/C Ratio(X)	0.23	0.12	1.09	0.47	0.38	0.54
Avail Cap(c_a), veh/h	1382	634	365	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.9	7.6	17.0	8.9	8.5	9.2
Incr Delay (d2), s/veh	0.4	0.4	74.6	1.1	0.8	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	10.5	1.8	1.3	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	7.9	91.6	10.0	9.3	12.4
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	393			1067	879	
Approach Delay, s/veh	8.2			40.5	10.5	
Approach LOS	A			D	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.4		8.6
Green Ext Time (p_c), s		0.0		1.1		2.9

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	81	194	1851	9	325	414
Future Volume (veh/h)	81	194	1851	9	325	414
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	211	2012	0	353	450
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	413	3647
Grp Volume(v), veh/h	88	211	2012	0	353	450
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	206	1777
Q Serve(g_s), s	1.2	3.7	16.0	0.0	0.0	3.5
Cycle Q Clear(g_c), s	1.2	3.7	16.0	0.0	16.0	3.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.12	0.33	1.42		0.98	0.32
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	8.3	12.0	0.0	20.0	8.2
Incr Delay (d2), s/veh	0.4	1.4	191.2	0.0	42.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.2	42.2	0.0	3.6	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	9.7	203.2	0.0	62.8	8.8
LnGrp LOS	A	A	F		E	A
Approach Vol, veh/h	299		2012	A		803
Approach Delay, s/veh	9.2		203.2			32.6
Approach LOS	A		F			C

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	5.7
Green Ext Time (p_c), s	0.0				0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	140.5
HCM 6th LOS	F

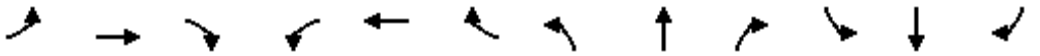
Notes

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



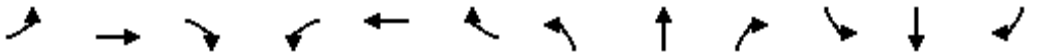
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	427	213	928	0	0	578
Future Volume (vph)	427	213	928	0	0	578
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3322		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3322		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	464	232	1009	0	0	628
RTOR Reduction (vph)	22	0	0	0	0	0
Lane Group Flow (vph)	674	0	1009	0	0	628
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1328		2034			2563
v/s Ratio Prot	c0.20		c0.20			0.10
v/s Ratio Perm						
v/c Ratio	0.51		0.50			0.25
Uniform Delay, d1	9.0		9.0			8.0
Progression Factor	1.00		0.60			1.00
Incremental Delay, d2	1.4		0.7			0.2
Delay (s)	10.4		6.1			8.2
Level of Service	B		A			A
Approach Delay (s)	10.4		6.1			8.2
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



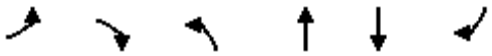
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	233	81	0	0	0	109	802	357	74	688	262
Future Volume (vph)	140	233	81	0	0	0	109	802	357	74	688	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.95		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4850		1770	4875	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4850		466	4875	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	253	88	0	0	0	118	872	388	80	748	285
RTOR Reduction (vph)	0	46	0	0	0	0	0	200	0	0	171	0
Lane Group Flow (vph)	0	447	0	0	0	0	118	1060	0	80	862	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1940		186	1950	
v/s Ratio Prot								0.22			0.18	
v/s Ratio Perm		0.13					c0.25			0.17		
v/c Ratio		0.33					0.63	0.55		0.43	0.44	
Uniform Delay, d1		8.3					9.6	9.2		8.7	8.7	
Progression Factor		1.00					1.00	1.00		0.73	0.65	
Incremental Delay, d2		0.7					15.4	1.1		6.8	0.7	
Delay (s)		8.9					25.0	10.3		13.1	6.4	
Level of Service		A					C	B		B	A	
Approach Delay (s)		8.9			0.0			11.6			6.9	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	566	61	38	45	335	27	268	638	30	17	454	452
Future Volume (vph)	566	61	38	45	335	27	268	638	30	17	454	452
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1842		1770	3515		1770	4566	1362
Flt Permitted	0.44	0.47		0.43	1.00		0.33	1.00		0.32	1.00	1.00
Satd. Flow (perm)	779	818		797	1842		619	3515		592	4566	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	615	66	41	49	364	29	291	693	33	18	493	491
RTOR Reduction (vph)	0	11	0	0	7	0	0	8	0	0	148	147
Lane Group Flow (vph)	338	373	0	49	386	0	291	718	0	18	591	98
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	311	327		318	736		247	1406		236	1826	544
v/s Ratio Prot					0.21			0.20			0.13	
v/s Ratio Perm	0.43	c0.46		0.06			c0.47			0.03		0.07
v/c Ratio	1.09	1.14		0.15	0.52		1.18	0.51		0.08	0.32	0.18
Uniform Delay, d1	12.0	12.0		7.7	9.1		12.0	9.0		7.4	8.3	7.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	76.2	93.7		1.0	2.7		114.0	1.3		0.6	0.5	0.7
Delay (s)	88.2	105.7		8.7	11.8		126.0	10.4		8.1	8.7	8.5
Level of Service	F	F		A	B		F	B		A	A	A
Approach Delay (s)		97.5			11.4			43.5			8.7	
Approach LOS		F			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	40.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	511	40	95	194	1189	226
Future Volume (veh/h)	511	40	95	194	1189	226
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	555	43	103	211	1292	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	199	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	337	3647	3647	1585
Grp Volume(v), veh/h	555	43	103	211	1292	246
Grp Sat Flow(s),veh/h/ln	1728	1585	337	1777	1777	1585
Q Serve(g_s), s	4.6	0.7	2.3	1.5	13.7	4.4
Cycle Q Clear(g_c), s	4.6	0.7	16.0	1.5	13.7	4.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	199	1421	1421	634
V/C Ratio(X)	0.40	0.07	0.52	0.15	0.91	0.39
Avail Cap(c_a), veh/h	1382	634	199	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.6	7.4	19.8	7.7	11.3	8.5
Incr Delay (d2), s/veh	0.9	0.2	9.3	0.2	10.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	1.4	0.5	5.8	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	7.6	29.0	7.9	21.4	10.3
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	598			314	1538	
Approach Delay, s/veh	9.3			14.8	19.7	
Approach LOS	A			B	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		6.6		15.7
Green Ext Time (p_c), s		0.0		1.6		0.2

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	452	69	280	5	740	2765
Future Volume (veh/h)	452	69	280	5	740	2765
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	491	75	304	0	804	3005
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1077	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2086	3647
Grp Volume(v), veh/h	491	75	304	0	804	3005
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1043	1777
Q Serve(g_s), s	9.1	1.2	2.2	0.0	13.8	16.0
Cycle Q Clear(g_c), s	9.1	1.2	2.2	0.0	16.0	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1077	1421
V/C Ratio(X)	0.69	0.12	0.21		0.75	2.11
Avail Cap(c_a), veh/h	713	634	1421		1077	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	7.6	7.9	0.0	13.9	12.0
Incr Delay (d2), s/veh	5.4	0.4	0.3	0.0	4.7	503.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.4	0.7	0.0	3.6	103.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.3	7.9	8.2	0.0	18.6	515.7
LnGrp LOS	B	A	A		B	F
Approach Vol, veh/h	566		304	A		3809
Approach Delay, s/veh	14.4		8.2			410.8
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	4.2			18.0	11.1
Green Ext Time (p_c), s	1.4			0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	336.7
HCM 6th LOS	F

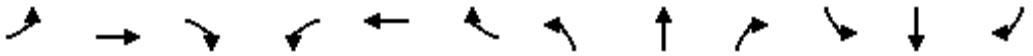
Notes

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



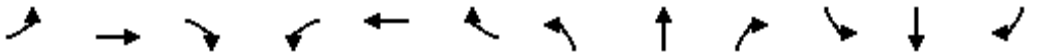
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	863	118	452	0	0	1653
Future Volume (vph)	863	118	452	0	0	1653
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	938	128	491	0	0	1797
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	1038	0	491	0	0	1797
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.31		0.10			c0.28
v/s Ratio Perm						
v/c Ratio	0.76		0.24			0.70
Uniform Delay, d1	10.4		8.0			10.0
Progression Factor	1.00		0.79			1.00
Incremental Delay, d2	4.1		0.3			1.6
Delay (s)	14.5		6.6			11.6
Level of Service	B		A			B
Approach Delay (s)	14.5		6.6			11.6
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



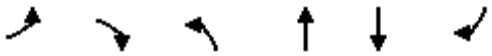
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	377	205	0	0	0	30	318	177	205	1820	491
Future Volume (vph)	149	377	205	0	0	0	30	318	177	205	1820	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.95		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4813		1770	4923	
Flt Permitted		0.99					0.25	1.00		0.44	1.00	
Satd. Flow (perm)		3356					466	4813		822	4923	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	162	410	223	0	0	0	33	346	192	223	1978	534
RTOR Reduction (vph)	0	1	0	0	0	0	0	115	0	0	122	0
Lane Group Flow (vph)	0	794	0	0	0	0	33	423	0	223	2390	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1925		328	1969	
v/s Ratio Prot								0.09			c0.49	
v/s Ratio Perm		0.24					0.07			0.27		
v/c Ratio		0.59					0.18	0.22		0.68	1.21	
Uniform Delay, d1		9.4					7.8	7.9		9.9	12.0	
Progression Factor		1.00					1.00	1.00		0.71	0.61	
Incremental Delay, d2		1.9					2.1	0.3		7.5	99.6	
Delay (s)		11.4					9.8	8.2		14.5	107.0	
Level of Service		B					A	A		B	F	
Approach Delay (s)		11.4			0.0			8.3			99.4	
Approach LOS		B			A			A			F	

Intersection Summary			
HCM 2000 Control Delay	69.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	596	54	98	119	180	14	168	235	16	17	1479	186
Future Volume (vph)	596	54	98	119	180	14	168	235	16	17	1479	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1652		1770	1843		1770	3506		1770	4797	1362
Flt Permitted	0.63	0.70		0.39	1.00		0.25	1.00		0.58	1.00	1.00
Satd. Flow (perm)	1108	1187		721	1843		466	3506		1088	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	648	59	107	129	196	15	183	255	17	18	1608	202
RTOR Reduction (vph)	0	2	0	0	7	0	0	10	0	0	3	109
Lane Group Flow (vph)	395	417	0	129	204	0	183	262	0	18	1625	73
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	443	474		288	737		186	1402		435	1918	544
v/s Ratio Prot					0.11			0.07			0.34	
v/s Ratio Perm	c0.36	0.35		0.18			c0.39			0.02		0.05
v/c Ratio	0.89	0.88		0.45	0.28		0.98	0.19		0.04	0.85	0.13
Uniform Delay, d1	11.2	11.1		8.8	8.1		11.9	7.8		7.3	10.9	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	22.8	20.1		5.0	0.9		61.9	0.3		0.2	4.9	0.5
Delay (s)	34.0	31.2		13.7	9.0		73.8	8.1		7.5	15.8	8.1
Level of Service	C	C		B	A		E	A		A	B	A
Approach Delay (s)		32.6			10.8			34.5			14.9	
Approach LOS		C			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	315	74	772	531	283	226
Future Volume (veh/h)	315	74	772	531	283	226
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	342	80	839	577	308	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	473	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	854	3647	3647	1585
Grp Volume(v), veh/h	342	80	839	577	308	246
Grp Sat Flow(s),veh/h/ln	1728	1585	854	1777	1777	1585
Q Serve(g_s), s	2.6	1.3	13.7	4.7	2.3	4.4
Cycle Q Clear(g_c), s	2.6	1.3	16.0	4.7	2.3	4.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	473	1421	1421	634
V/C Ratio(X)	0.25	0.13	1.77	0.41	0.22	0.39
Avail Cap(c_a), veh/h	1382	634	473	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	15.7	8.6	7.9	8.5
Incr Delay (d2), s/veh	0.4	0.4	356.5	0.9	0.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	50.7	1.5	0.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.0	372.3	9.5	8.2	10.3
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	422			1416	554	
Approach Delay, s/veh	8.3			224.4	9.2	
Approach LOS	A			F	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.6		6.4
Green Ext Time (p_c), s		0.0		1.2		2.0

Intersection Summary		
HCM 6th Ctrl Delay	136.5	
HCM 6th LOS	F	



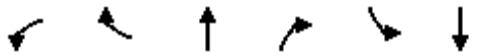
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	104	103	2839	8	214	330
Future Volume (veh/h)	104	103	2839	8	214	330
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	112	3086	0	233	359
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	141	3647
Grp Volume(v), veh/h	113	112	3086	0	233	359
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	71	1777
Q Serve(g_s), s	1.6	1.8	16.0	0.0	0.0	2.7
Cycle Q Clear(g_c), s	1.6	1.8	16.0	0.0	16.0	2.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.16	0.18	2.17		0.65	0.25
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.7	12.0	0.0	20.0	8.0
Incr Delay (d2), s/veh	0.5	0.6	529.3	0.0	8.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.6	109.0	0.0	1.4	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.4	541.3	0.0	28.7	8.4
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	225		3086	A		592
Approach Delay, s/veh	8.3		541.3			16.4
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.8
Green Ext Time (p_c), s	0.0				0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	430.9
HCM 6th LOS	F

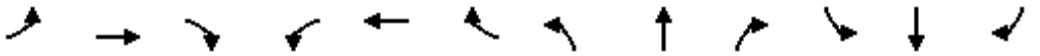
Notes

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



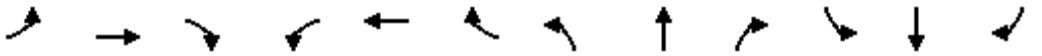
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	334	266	1408	0	0	711
Future Volume (vph)	334	266	1408	0	0	711
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3282		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3282		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	363	289	1530	0	0	773
RTOR Reduction (vph)	3	0	0	0	0	0
Lane Group Flow (vph)	649	0	1530	0	0	773
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.20		c0.30			0.12
v/s Ratio Perm						
v/c Ratio	0.49		0.75			0.30
Uniform Delay, d1	9.0		10.3			8.2
Progression Factor	1.00		0.71			1.00
Incremental Delay, d2	1.3		1.6			0.3
Delay (s)	10.3		8.9			8.5
Level of Service	B		A			A
Approach Delay (s)	10.3		8.9			8.5
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	390	93	0	0	0	194	1156	471	80	678	289
Future Volume (vph)	252	390	93	0	0	0	194	1156	471	80	678	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3414					1770	4865		1770	4857	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3414					466	4865		466	4857	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	424	101	0	0	0	211	1257	512	87	737	314
RTOR Reduction (vph)	0	28	0	0	0	0	0	165	0	0	188	0
Lane Group Flow (vph)	0	771	0	0	0	0	211	1604	0	87	863	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					186	1946		186	1942	
v/s Ratio Prot								0.33			0.18	
v/s Ratio Perm		0.23					c0.45			0.19		
v/c Ratio		0.56					1.13	0.82		0.47	0.44	
Uniform Delay, d1		9.3					12.0	10.7		8.9	8.8	
Progression Factor		1.00					1.00	1.00		0.62	0.54	
Incremental Delay, d2		1.7					106.8	4.1		7.8	0.7	
Delay (s)		11.0					118.8	14.9		13.3	5.4	
Level of Service		B					F	B		B	A	
Approach Delay (s)		11.0			0.0			25.9			6.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

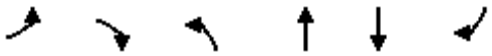


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	513	73	47	32	454	16	262	807	47	22	537	719
Future Volume (vph)	513	73	47	32	454	16	262	807	47	22	537	719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3510		1770	4517	1362
Flt Permitted	0.31	0.35		0.43	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	553	609		803	1853		466	3510		466	4517	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	558	79	51	35	493	17	285	877	51	24	584	782
RTOR Reduction (vph)	0	14	0	0	3	0	0	11	0	0	131	131
Lane Group Flow (vph)	307	367	0	35	507	0	285	917	0	24	844	260
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	221	243		321	741		186	1404		186	1806	544
v/s Ratio Prot					0.27			0.26			0.19	
v/s Ratio Perm	0.56	c0.60		0.04			c0.61			0.05		0.19
v/c Ratio	1.39	1.51		0.11	0.68		1.53	0.65		0.13	0.47	0.48
Uniform Delay, d1	12.0	12.0		7.5	9.9		12.0	9.7		7.6	8.9	8.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	200.5	250.1		0.7	5.1		264.7	2.4		1.4	0.9	3.0
Delay (s)	212.5	262.1		8.2	15.0		276.7	12.1		9.0	9.7	11.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		240.0			14.6			74.3			10.3	
Approach LOS		F			B			E			B	

Intersection Summary			
HCM 2000 Control Delay	72.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	309	73	400	653	522	332
Future Volume (veh/h)	309	73	400	653	522	332
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	336	79	435	710	567	361
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	352	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	603	3647	3647	1585
Grp Volume(v), veh/h	336	79	435	710	567	361
Grp Sat Flow(s),veh/h/ln	1728	1585	603	1777	1777	1585
Q Serve(g_s), s	2.6	1.3	11.4	6.0	4.6	7.1
Cycle Q Clear(g_c), s	2.6	1.3	16.0	6.0	4.6	7.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	352	1421	1421	634
V/C Ratio(X)	0.24	0.12	1.23	0.50	0.40	0.57
Avail Cap(c_a), veh/h	1382	634	352	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	17.2	9.0	8.6	9.3
Incr Delay (d2), s/veh	0.4	0.4	127.6	1.3	0.8	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	15.4	1.9	1.4	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.0	144.8	10.3	9.4	13.0
LnGrp LOS	A	A	F	B	A	B
Approach Vol, veh/h	415			1145	928	
Approach Delay, s/veh	8.3			61.4	10.8	
Approach LOS	A			E	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.6		9.1
Green Ext Time (p_c), s		0.0		1.2		2.9

Intersection Summary	
HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C



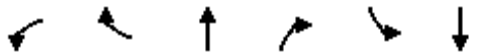
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	99	207	1993	10	342	450
Future Volume (veh/h)	99	207	1993	10	342	450
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	225	2166	0	372	489
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	355	3647
Grp Volume(v), veh/h	108	225	2166	0	372	489
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	177	1777
Q Serve(g_s), s	1.5	4.0	16.0	0.0	0.0	3.8
Cycle Q Clear(g_c), s	1.5	4.0	16.0	0.0	16.0	3.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.15	0.35	1.52		1.03	0.34
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	8.4	12.0	0.0	20.0	8.3
Incr Delay (d2), s/veh	0.5	1.6	239.3	0.0	56.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	51.7	0.0	4.3	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	9.9	251.3	0.0	76.3	9.0
LnGrp LOS	A	A	F		F	A
Approach Vol, veh/h	333		2166	A		861
Approach Delay, s/veh	9.4		251.3			38.1
Approach LOS	A		F			D

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		18.0			18.0	6.0
Green Ext Time (p_c), s		0.0			0.0	0.8

Intersection Summary		
HCM 6th Ctrl Delay	172.7	
HCM 6th LOS	F	

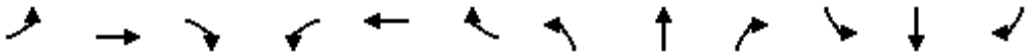
Notes

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



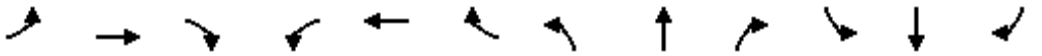
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	453	227	1027	0	0	661
Future Volume (vph)	453	227	1027	0	0	661
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3322		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3322		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	492	247	1116	0	0	718
RTOR Reduction (vph)	15	0	0	0	0	0
Lane Group Flow (vph)	724	0	1116	0	0	718
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1328		2034			2563
v/s Ratio Prot	c0.22		c0.22			0.11
v/s Ratio Perm						
v/c Ratio	0.55		0.55			0.28
Uniform Delay, d1	9.2		9.2			8.1
Progression Factor	1.00		0.61			1.00
Incremental Delay, d2	1.6		0.8			0.3
Delay (s)	10.8		6.5			8.4
Level of Service	B		A			A
Approach Delay (s)	10.8		6.5			8.4
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	249	87	0	0	0	116	894	380	79	777	279
Future Volume (vph)	150	249	87	0	0	0	116	894	380	79	777	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4858		1770	4884	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4858		466	4884	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	271	95	0	0	0	126	972	413	86	845	303
RTOR Reduction (vph)	0	39	0	0	0	0	0	191	0	0	161	0
Lane Group Flow (vph)	0	490	0	0	0	0	126	1194	0	86	987	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1943		186	1953	
v/s Ratio Prot								0.25			0.20	
v/s Ratio Perm		0.14					c0.27			0.18		
v/c Ratio		0.36					0.68	0.61		0.46	0.51	
Uniform Delay, d1		8.4					9.9	9.5		8.8	9.0	
Progression Factor		1.00					1.00	1.00		0.70	0.64	
Incremental Delay, d2		0.7					18.1	1.5		7.6	0.9	
Delay (s)		9.2					27.9	11.0		13.8	6.6	
Level of Service		A					C	B		B	A	
Approach Delay (s)		9.2			0.0			12.4			7.1	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



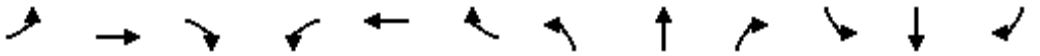
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	609	65	40	48	358	30	286	700	33	18	497	483
Future Volume (vph)	609	65	40	48	358	30	286	700	33	18	497	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1841		1770	3515		1770	4570	1362
Flt Permitted	0.41	0.44		0.40	1.00		0.30	1.00		0.28	1.00	1.00
Satd. Flow (perm)	722	759		736	1841		559	3515		518	4570	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	662	71	43	52	389	33	311	761	36	20	540	525
RTOR Reduction (vph)	0	10	0	0	8	0	0	8	0	0	158	157
Lane Group Flow (vph)	364	402	0	52	414	0	311	789	0	20	645	105
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	288	303		294	736		223	1406		207	1828	544
v/s Ratio Prot					0.22			0.22			0.14	
v/s Ratio Perm	0.50	c0.53		0.07			c0.56			0.04		0.08
v/c Ratio	1.26	1.33		0.18	0.56		1.39	0.56		0.10	0.35	0.19
Uniform Delay, d1	12.0	12.0		7.7	9.3		12.0	9.3		7.5	8.4	7.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	143.5	167.9		1.3	3.1		202.6	1.6		0.9	0.5	0.8
Delay (s)	155.5	179.9		9.1	12.4		214.6	10.9		8.4	8.9	8.6
Level of Service	F	F		A	B		F	B		A	A	A
Approach Delay (s)		168.4			12.0			68.1			8.8	
Approach LOS		F			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	64.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



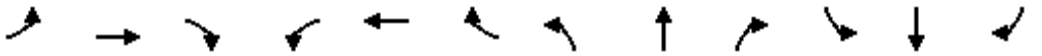
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	868	118	452	0	0	1653
Future Volume (vph)	868	118	452	0	0	1653
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	943	128	491	0	0	1797
RTOR Reduction (vph)	27	0	0	0	0	0
Lane Group Flow (vph)	1044	0	491	0	0	1797
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.31		0.10			c0.28
v/s Ratio Perm						
v/c Ratio	0.77		0.24			0.70
Uniform Delay, d1	10.4		8.0			10.0
Progression Factor	1.00		0.79			1.00
Incremental Delay, d2	4.2		0.3			1.6
Delay (s)	14.6		6.6			11.6
Level of Service	B		A			B
Approach Delay (s)	14.6		6.6			11.6
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



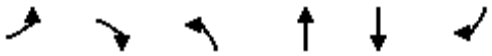
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	377	205	0	0	0	30	318	180	205	1825	491
Future Volume (vph)	149	377	205	0	0	0	30	318	180	205	1825	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.95		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4809		1770	4924	
Flt Permitted		0.99					0.25	1.00		0.44	1.00	
Satd. Flow (perm)		3356					466	4809		819	4924	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	162	410	223	0	0	0	33	346	196	223	1984	534
RTOR Reduction (vph)	0	1	0	0	0	0	0	118	0	0	121	0
Lane Group Flow (vph)	0	794	0	0	0	0	33	424	0	223	2397	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1923		327	1969	
v/s Ratio Prot								0.09			c0.49	
v/s Ratio Perm		0.24					0.07			0.27		
v/c Ratio		0.59					0.18	0.22		0.68	1.22	
Uniform Delay, d1		9.4					7.8	7.9		9.9	12.0	
Progression Factor		1.00					1.00	1.00		0.71	0.61	
Incremental Delay, d2		1.9					2.1	0.3		7.5	101.1	
Delay (s)		11.4					9.8	8.2		14.5	108.5	
Level of Service		B					A	A		B	F	
Approach Delay (s)		11.4			0.0			8.3			100.8	
Approach LOS		B			A			A			F	

Intersection Summary			
HCM 2000 Control Delay	70.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	596	54	98	119	180	14	168	238	16	17	1483	186
Future Volume (vph)	596	54	98	119	180	14	168	238	16	17	1483	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1652		1770	1843		1770	3507		1770	4797	1362
Flt Permitted	0.63	0.70		0.39	1.00		0.25	1.00		0.58	1.00	1.00
Satd. Flow (perm)	1108	1187		721	1843		466	3507		1084	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	648	59	107	129	196	15	183	259	17	18	1612	202
RTOR Reduction (vph)	0	2	0	0	7	0	0	10	0	0	3	109
Lane Group Flow (vph)	395	417	0	129	204	0	183	266	0	18	1629	73
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	443	474		288	737		186	1402		433	1918	544
v/s Ratio Prot					0.11			0.08			0.34	
v/s Ratio Perm	c0.36	0.35		0.18			c0.39			0.02		0.05
v/c Ratio	0.89	0.88		0.45	0.28		0.98	0.19		0.04	0.85	0.13
Uniform Delay, d1	11.2	11.1		8.8	8.1		11.9	7.8		7.3	10.9	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	22.8	20.1		5.0	0.9		61.9	0.3		0.2	4.9	0.5
Delay (s)	34.0	31.2		13.7	9.0		73.8	8.1		7.5	15.8	8.1
Level of Service	C	C		B	A		E	A		A	B	A
Approach Delay (s)		32.6			10.8			34.3			15.0	
Approach LOS		C			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	524	40	95	210	1210	231
Future Volume (veh/h)	524	40	95	210	1210	231
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	570	43	103	228	1315	251
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	196	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	328	3647	3647	1585
Grp Volume(v), veh/h	570	43	103	228	1315	251
Grp Sat Flow(s),veh/h/ln	1728	1585	328	1777	1777	1585
Q Serve(g_s), s	4.7	0.7	1.9	1.6	14.1	4.5
Cycle Q Clear(g_c), s	4.7	0.7	16.0	1.6	14.1	4.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	196	1421	1421	634
V/C Ratio(X)	0.41	0.07	0.53	0.16	0.93	0.40
Avail Cap(c_a), veh/h	1382	634	196	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.6	7.4	19.9	7.7	11.4	8.6
Incr Delay (d2), s/veh	0.9	0.2	9.8	0.2	11.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.2	1.4	0.5	6.2	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.5	7.6	29.6	7.9	23.1	10.4
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	613			331	1566	
Approach Delay, s/veh	9.4			14.7	21.0	
Approach LOS	A			B	C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		6.7		16.1
Green Ext Time (p_c), s		0.0		1.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	452	69	290	5	750	2773
Future Volume (veh/h)	452	69	290	5	750	2773
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	491	75	315	0	815	3014
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1066	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2065	3647
Grp Volume(v), veh/h	491	75	315	0	815	3014
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1033	1777
Q Serve(g_s), s	9.1	1.2	2.3	0.0	13.7	16.0
Cycle Q Clear(g_c), s	9.1	1.2	2.3	0.0	16.0	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1066	1421
V/C Ratio(X)	0.69	0.12	0.22		0.76	2.12
Avail Cap(c_a), veh/h	713	634	1421		1066	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	7.6	7.9	0.0	14.1	12.0
Incr Delay (d2), s/veh	5.4	0.4	0.4	0.0	5.2	506.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.4	0.7	0.0	3.8	104.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.3	7.9	8.3	0.0	19.3	518.5
LnGrp LOS	B	A	A		B	F
Approach Vol, veh/h	566		315	A		3829
Approach Delay, s/veh	14.4		8.3			412.3
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	4.3			18.0	11.1
Green Ext Time (p_c), s	1.5			0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	337.4
HCM 6th LOS	F

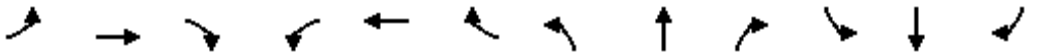
Notes

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



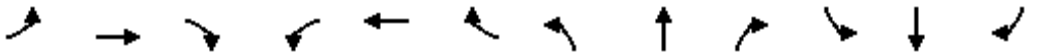
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	335	266	1408	0	0	711
Future Volume (vph)	335	266	1408	0	0	711
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3282		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3282		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	289	1530	0	0	773
RTOR Reduction (vph)	3	0	0	0	0	0
Lane Group Flow (vph)	650	0	1530	0	0	773
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.20		c0.30			0.12
v/s Ratio Perm						
v/c Ratio	0.50		0.75			0.30
Uniform Delay, d1	9.0		10.3			8.2
Progression Factor	1.00		0.71			1.00
Incremental Delay, d2	1.3		1.6			0.3
Delay (s)	10.3		8.9			8.5
Level of Service	B		A			A
Approach Delay (s)	10.3		8.9			8.5
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	390	93	0	0	0	194	1156	472	80	679	289
Future Volume (vph)	252	390	93	0	0	0	194	1156	472	80	679	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3414					1770	4864		1770	4858	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3414					466	4864		466	4858	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	424	101	0	0	0	211	1257	513	87	738	314
RTOR Reduction (vph)	0	28	0	0	0	0	0	165	0	0	188	0
Lane Group Flow (vph)	0	771	0	0	0	0	211	1605	0	87	864	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					186	1945		186	1943	
v/s Ratio Prot								0.33			0.18	
v/s Ratio Perm		0.23					c0.45			0.19		
v/c Ratio		0.56					1.13	0.83		0.47	0.44	
Uniform Delay, d1		9.3					12.0	10.7		8.9	8.8	
Progression Factor		1.00					1.00	1.00		0.63	0.54	
Incremental Delay, d2		1.7					106.8	4.1		7.8	0.7	
Delay (s)		11.0					118.8	14.9		13.4	5.4	
Level of Service		B					F	B		B	A	
Approach Delay (s)		11.0			0.0			26.0			6.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

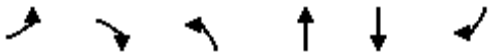


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	513	73	47	32	454	16	262	808	47	22	538	719
Future Volume (vph)	513	73	47	32	454	16	262	808	47	22	538	719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3510		1770	4517	1362
Flt Permitted	0.31	0.35		0.43	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	553	609		803	1853		466	3510		466	4517	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	558	79	51	35	493	17	285	878	51	24	585	782
RTOR Reduction (vph)	0	14	0	0	3	0	0	10	0	0	131	131
Lane Group Flow (vph)	307	367	0	35	507	0	285	919	0	24	845	260
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	221	243		321	741		186	1404		186	1806	544
v/s Ratio Prot					0.27			0.26			0.19	
v/s Ratio Perm	0.56	c0.60		0.04			c0.61			0.05		0.19
v/c Ratio	1.39	1.51		0.11	0.68		1.53	0.65		0.13	0.47	0.48
Uniform Delay, d1	12.0	12.0		7.5	9.9		12.0	9.8		7.6	8.9	8.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	200.5	250.1		0.7	5.1		264.7	2.4		1.4	0.9	3.0
Delay (s)	212.5	262.1		8.2	15.0		276.7	12.1		9.0	9.7	11.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		240.0			14.6			74.3			10.3	
Approach LOS		F			B			E			B	

Intersection Summary			
HCM 2000 Control Delay	72.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	318	74	772	535	290	228
Future Volume (veh/h)	318	74	772	535	290	228
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	346	80	839	582	315	248
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	469	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	847	3647	3647	1585
Grp Volume(v), veh/h	346	80	839	582	315	248
Grp Sat Flow(s),veh/h/ln	1728	1585	847	1777	1777	1585
Q Serve(g_s), s	2.7	1.3	13.7	4.7	2.3	4.5
Cycle Q Clear(g_c), s	2.7	1.3	16.0	4.7	2.3	4.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	469	1421	1421	634
V/C Ratio(X)	0.25	0.13	1.79	0.41	0.22	0.39
Avail Cap(c_a), veh/h	1382	634	469	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	15.8	8.6	7.9	8.5
Incr Delay (d2), s/veh	0.4	0.4	362.7	0.9	0.4	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	51.1	1.5	0.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.0	378.5	9.5	8.3	10.3
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	426			1421	563	
Approach Delay, s/veh	8.4			227.4	9.2	
Approach LOS	A			F	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.7		6.5
Green Ext Time (p_c), s		0.0		1.2		2.1

Intersection Summary		
HCM 6th Ctrl Delay	137.7	
HCM 6th LOS	F	



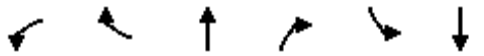
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	104	103	2841	8	218	333
Future Volume (veh/h)	104	103	2841	8	218	333
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	112	3088	0	237	362
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	141	3647
Grp Volume(v), veh/h	113	112	3088	0	237	362
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	70	1777
Q Serve(g_s), s	1.6	1.8	16.0	0.0	0.0	2.7
Cycle Q Clear(g_c), s	1.6	1.8	16.0	0.0	16.0	2.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.16	0.18	2.17		0.66	0.25
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.7	12.0	0.0	20.0	8.0
Incr Delay (d2), s/veh	0.5	0.6	529.9	0.0	9.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.6	109.1	0.0	1.4	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.4	541.9	0.0	29.1	8.4
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	225		3088	A		599
Approach Delay, s/veh	8.3		541.9			16.6
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.8
Green Ext Time (p_c), s	0.0				0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	430.8
HCM 6th LOS	F

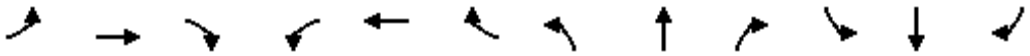
Notes

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



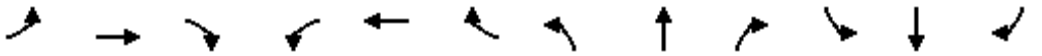
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	456	227	1027	0	0	661
Future Volume (vph)	456	227	1027	0	0	661
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3323		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3323		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	496	247	1116	0	0	718
RTOR Reduction (vph)	15	0	0	0	0	0
Lane Group Flow (vph)	728	0	1116	0	0	718
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1329		2034			2563
v/s Ratio Prot	c0.22		c0.22			0.11
v/s Ratio Perm						
v/c Ratio	0.55		0.55			0.28
Uniform Delay, d1	9.2		9.2			8.1
Progression Factor	1.00		0.61			1.00
Incremental Delay, d2	1.6		0.8			0.3
Delay (s)	10.8		6.5			8.4
Level of Service	B		A			A
Approach Delay (s)	10.8		6.5			8.4
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



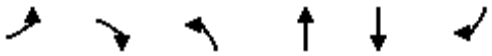
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	249	87	0	0	0	116	894	382	79	780	279
Future Volume (vph)	150	249	87	0	0	0	116	894	382	79	780	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4857		1770	4884	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4857		466	4884	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	271	95	0	0	0	126	972	415	86	848	303
RTOR Reduction (vph)	0	38	0	0	0	0	0	193	0	0	161	0
Lane Group Flow (vph)	0	491	0	0	0	0	126	1194	0	86	990	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1942		186	1953	
v/s Ratio Prot								0.25			0.20	
v/s Ratio Perm		0.14					c0.27			0.18		
v/c Ratio		0.36					0.68	0.62		0.46	0.51	
Uniform Delay, d1		8.4					9.9	9.5		8.8	9.0	
Progression Factor		1.00					1.00	1.00		0.70	0.64	
Incremental Delay, d2		0.8					18.1	1.5		7.6	0.9	
Delay (s)		9.2					27.9	11.0		13.8	6.6	
Level of Service		A					C	B		B	A	
Approach Delay (s)		9.2			0.0			12.4			7.1	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	609	65	40	48	358	30	286	702	33	18	499	483
Future Volume (vph)	609	65	40	48	358	30	286	702	33	18	499	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1841		1770	3515		1770	4570	1362
Flt Permitted	0.41	0.44		0.40	1.00		0.30	1.00		0.28	1.00	1.00
Satd. Flow (perm)	722	759		736	1841		557	3515		516	4570	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	662	71	43	52	389	33	311	763	36	20	542	525
RTOR Reduction (vph)	0	10	0	0	8	0	0	8	0	0	158	157
Lane Group Flow (vph)	364	402	0	52	414	0	311	791	0	20	647	105
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	288	303		294	736		222	1406		206	1828	544
v/s Ratio Prot					0.22			0.22			0.14	
v/s Ratio Perm	0.50	c0.53		0.07			c0.56			0.04		0.08
v/c Ratio	1.26	1.33		0.18	0.56		1.40	0.56		0.10	0.35	0.19
Uniform Delay, d1	12.0	12.0		7.7	9.3		12.0	9.3		7.5	8.4	7.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	143.5	167.9		1.3	3.1		205.3	1.6		0.9	0.5	0.8
Delay (s)	155.5	179.9		9.1	12.4		217.3	10.9		8.4	8.9	8.6
Level of Service	F	F		A	B		F	B		A	A	A
Approach Delay (s)		168.4			12.0			68.7			8.8	
Approach LOS		F			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	64.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	316	73	400	662	539	336
Future Volume (veh/h)	316	73	400	662	539	336
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	79	435	720	586	365
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	346	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	590	3647	3647	1585
Grp Volume(v), veh/h	343	79	435	720	586	365
Grp Sat Flow(s),veh/h/ln	1728	1585	590	1777	1777	1585
Q Serve(g_s), s	2.6	1.3	11.3	6.1	4.7	7.2
Cycle Q Clear(g_c), s	2.6	1.3	16.0	6.1	4.7	7.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	346	1421	1421	634
V/C Ratio(X)	0.25	0.12	1.26	0.51	0.41	0.58
Avail Cap(c_a), veh/h	1382	634	346	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	17.3	9.0	8.6	9.4
Incr Delay (d2), s/veh	0.4	0.4	137.1	1.3	0.9	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	16.0	2.0	1.5	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.0	154.4	10.3	9.5	13.1
LnGrp LOS	A	A	F	B	A	B
Approach Vol, veh/h	422			1155	951	
Approach Delay, s/veh	8.3			64.6	10.9	
Approach LOS	A			E	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.6		9.2
Green Ext Time (p_c), s		0.0		1.2		3.0

Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	99	207	1999	10	350	457
Future Volume (veh/h)	99	207	1999	10	350	457
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	225	2173	0	380	497
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	352	3647
Grp Volume(v), veh/h	108	225	2173	0	380	497
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	176	1777
Q Serve(g_s), s	1.5	4.0	16.0	0.0	0.0	3.9
Cycle Q Clear(g_c), s	1.5	4.0	16.0	0.0	16.0	3.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.15	0.35	1.53		1.06	0.35
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	8.4	12.0	0.0	20.0	8.4
Incr Delay (d2), s/veh	0.5	1.6	241.5	0.0	62.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	52.1	0.0	4.6	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	9.9	253.5	0.0	82.8	9.0
LnGrp LOS	A	A	F		F	A
Approach Vol, veh/h	333		2173	A		877
Approach Delay, s/veh	9.4		253.5			41.0
Approach LOS	A		F			D

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		18.0			18.0	6.0
Green Ext Time (p_c), s		0.0			0.0	0.8

Intersection Summary		
HCM 6th Ctrl Delay	174.4	
HCM 6th LOS	F	

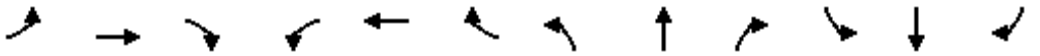
Notes

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



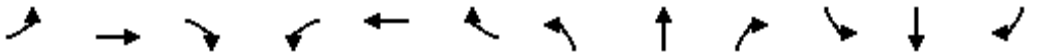
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	907	124	474	0	0	1736
Future Volume (vph)	907	124	474	0	0	1736
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	986	135	515	0	0	1887
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	1093	0	515	0	0	1887
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.32		0.10			c0.29
v/s Ratio Perm						
v/c Ratio	0.80		0.25			0.74
Uniform Delay, d1	10.6		8.0			10.2
Progression Factor	1.00		0.79			1.00
Incremental Delay, d2	5.2		0.3			1.9
Delay (s)	15.8		6.6			12.1
Level of Service	B		A			B
Approach Delay (s)	15.8		6.6			12.1
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



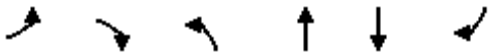
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	396	215	0	0	0	31	332	186	215	1912	517
Future Volume (vph)	156	396	215	0	0	0	31	332	186	215	1912	517
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.95		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4812		1770	4923	
Flt Permitted		0.99					0.25	1.00		0.43	1.00	
Satd. Flow (perm)		3356					466	4812		801	4923	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	430	234	0	0	0	34	361	202	234	2078	562
RTOR Reduction (vph)	0	1	0	0	0	0	0	121	0	0	122	0
Lane Group Flow (vph)	0	833	0	0	0	0	34	442	0	234	2518	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1924		320	1969	
v/s Ratio Prot								0.09			c0.51	
v/s Ratio Perm		0.25					0.07			0.29		
v/c Ratio		0.62					0.18	0.23		0.73	1.28	
Uniform Delay, d1		9.6					7.8	7.9		10.2	12.0	
Progression Factor		1.00					1.00	1.00		0.74	0.64	
Incremental Delay, d2		2.2					2.2	0.3		8.9	128.1	
Delay (s)		11.7					9.9	8.2		16.5	135.8	
Level of Service		B					A	A		B	F	
Approach Delay (s)		11.7			0.0			8.3			126.1	
Approach LOS		B			A			A			F	

Intersection Summary			
HCM 2000 Control Delay	87.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	627	57	103	125	190	15	176	246	17	18	1554	195
Future Volume (vph)	627	57	103	125	190	15	176	246	17	18	1554	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1653		1770	1843		1770	3506		1770	4797	1362
Flt Permitted	0.62	0.69		0.35	1.00		0.25	1.00		0.58	1.00	1.00
Satd. Flow (perm)	1096	1173		661	1843		466	3506		1075	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	682	62	112	136	207	16	191	267	18	20	1689	212
RTOR Reduction (vph)	0	2	0	0	7	0	0	11	0	0	3	115
Lane Group Flow (vph)	409	445	0	136	216	0	191	274	0	20	1707	76
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	438	469		264	737		186	1402		430	1918	544
v/s Ratio Prot					0.12			0.08			0.36	
v/s Ratio Perm	0.37	c0.38		0.21			c0.41			0.02		0.06
v/c Ratio	0.93	0.95		0.52	0.29		1.03	0.20		0.05	0.89	0.14
Uniform Delay, d1	11.5	11.6		9.1	8.2		12.0	7.8		7.3	11.2	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	29.2	30.7		7.0	1.0		73.2	0.3		0.2	6.7	0.5
Delay (s)	40.7	42.3		16.1	9.2		85.2	8.1		7.5	17.9	8.2
Level of Service	D	D		B	A		F	A		A	B	A
Approach Delay (s)		41.5			11.8			39.0			16.8	
Approach LOS		D			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	537	42	99	203	1249	237
Future Volume (veh/h)	537	42	99	203	1249	237
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	584	46	108	221	1358	258
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	189	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	313	3647	3647	1585
Grp Volume(v), veh/h	584	46	108	221	1358	258
Grp Sat Flow(s),veh/h/ln	1728	1585	313	1777	1777	1585
Q Serve(g_s), s	4.9	0.7	1.2	1.6	14.8	4.7
Cycle Q Clear(g_c), s	4.9	0.7	16.0	1.6	14.8	4.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	189	1421	1421	634
V/C Ratio(X)	0.42	0.07	0.57	0.16	0.96	0.41
Avail Cap(c_a), veh/h	1382	634	189	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.7	7.4	20.0	7.7	11.7	8.6
Incr Delay (d2), s/veh	0.9	0.2	11.9	0.2	15.4	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.2	1.5	0.5	7.2	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.6	7.6	31.9	7.9	27.0	10.5
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	630			329	1616	
Approach Delay, s/veh	9.5			15.8	24.4	
Approach LOS	A			B	C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		6.9		16.8
Green Ext Time (p_c), s		0.0		1.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	474	73	292	6	777	2905
Future Volume (veh/h)	474	73	292	6	777	2905
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	515	79	317	0	845	3158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1063	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2061	3647
Grp Volume(v), veh/h	515	79	317	0	845	3158
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1031	1777
Q Serve(g_s), s	9.8	1.3	2.4	0.0	13.6	16.0
Cycle Q Clear(g_c), s	9.8	1.3	2.4	0.0	16.0	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1063	1421
V/C Ratio(X)	0.72	0.12	0.22		0.79	2.22
Avail Cap(c_a), veh/h	713	634	1421		1063	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	7.6	7.9	0.0	14.3	12.0
Incr Delay (d2), s/veh	6.3	0.4	0.4	0.0	6.1	552.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.4	0.7	0.0	4.1	113.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	8.0	8.3	0.0	20.5	564.0
LnGrp LOS	B	A	A		C	F
Approach Vol, veh/h	594		317	A		4003
Approach Delay, s/veh	15.3		8.3			449.3
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	4.4			18.0	11.8
Green Ext Time (p_c), s	1.5			0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	368.4
HCM 6th LOS	F

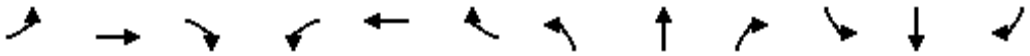
Notes

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



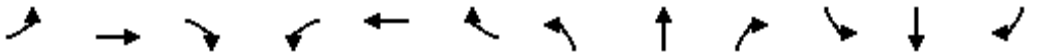
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	351	280	1478	0	0	745
Future Volume (vph)	351	280	1478	0	0	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3282		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3282		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	382	304	1607	0	0	810
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	684	0	1607	0	0	810
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.21		c0.32			0.13
v/s Ratio Perm						
v/c Ratio	0.52		0.79			0.32
Uniform Delay, d1	9.1		10.5			8.2
Progression Factor	1.00		0.73			1.00
Incremental Delay, d2	1.5		1.7			0.3
Delay (s)	10.6		9.4			8.6
Level of Service	B		A			A
Approach Delay (s)	10.6		9.4			8.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



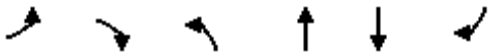
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	410	98	0	0	0	204	1213	495	84	711	304
Future Volume (vph)	264	410	98	0	0	0	204	1213	495	84	711	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3413					1770	4864		1770	4857	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3413					466	4864		466	4857	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	446	107	0	0	0	222	1318	538	91	773	330
RTOR Reduction (vph)	0	29	0	0	0	0	0	153	0	0	193	0
Lane Group Flow (vph)	0	811	0	0	0	0	222	1703	0	91	910	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					186	1945		186	1942	
v/s Ratio Prot								0.35			0.19	
v/s Ratio Perm		0.24					c0.48			0.20		
v/c Ratio		0.59					1.19	0.88		0.49	0.47	
Uniform Delay, d1		9.4					12.0	11.1		9.0	8.9	
Progression Factor		1.00					1.00	1.00		0.62	0.54	
Incremental Delay, d2		1.9					127.8	5.9		8.4	0.8	
Delay (s)		11.4					139.8	17.0		14.0	5.5	
Level of Service		B					F	B		B	A	
Approach Delay (s)		11.4			0.0			30.1			6.2	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	77	49	33	478	17	276	847	49	23	563	755
Future Volume (vph)	540	77	49	33	478	17	276	847	49	23	563	755
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3510		1770	4516	1362
Flt Permitted	0.28	0.32		0.41	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	501	553		760	1853		466	3510		466	4516	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	587	84	53	36	520	18	300	921	53	25	612	821
RTOR Reduction (vph)	0	14	0	0	3	0	0	10	0	0	119	119
Lane Group Flow (vph)	323	387	0	36	535	0	300	964	0	25	904	291
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	200	221		304	741		186	1404		186	1806	544
v/s Ratio Prot					0.29			0.27			0.20	
v/s Ratio Perm	0.64	c0.70		0.05			c0.64			0.05		0.21
v/c Ratio	1.61	1.75		0.12	0.72		1.61	0.69		0.13	0.50	0.53
Uniform Delay, d1	12.0	12.0		7.6	10.1		12.0	9.9		7.6	9.0	9.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	298.7	356.4		0.8	6.0		299.3	2.8		1.5	1.0	3.7
Delay (s)	310.7	368.4		8.4	16.1		311.3	12.7		9.1	10.0	12.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		342.7			15.7			83.0			10.8	
Approach LOS		F			B			F			B	

Intersection Summary			
HCM 2000 Control Delay	93.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.68		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	331	78	808	557	296	237
Future Volume (veh/h)	331	78	808	557	296	237
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	360	85	878	605	322	258
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	464	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	834	3647	3647	1585
Grp Volume(v), veh/h	360	85	878	605	322	258
Grp Sat Flow(s),veh/h/ln	1728	1585	834	1777	1777	1585
Q Serve(g_s), s	2.8	1.4	13.6	4.9	2.4	4.7
Cycle Q Clear(g_c), s	2.8	1.4	16.0	4.9	2.4	4.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	464	1421	1421	634
V/C Ratio(X)	0.26	0.13	1.89	0.43	0.23	0.41
Avail Cap(c_a), veh/h	1382	634	464	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	15.8	8.7	7.9	8.6
Incr Delay (d2), s/veh	0.5	0.4	410.0	0.9	0.4	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	56.6	1.6	0.7	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	8.0	425.8	9.6	8.3	10.5
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	445			1483	580	
Approach Delay, s/veh	8.4			256.0	9.3	
Approach LOS	A			F	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		4.8		6.7
Green Ext Time (p_c), s		0.0		1.2		2.1

Intersection Summary		
HCM 6th Ctrl Delay		155.0
HCM 6th LOS		F



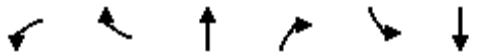
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	107	108	2980	9	225	345
Future Volume (veh/h)	107	108	2980	9	225	345
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	117	3239	0	245	375
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	121	3647
Grp Volume(v), veh/h	116	117	3239	0	245	375
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	60	1777
Q Serve(g_s), s	1.7	1.9	16.0	0.0	0.0	2.8
Cycle Q Clear(g_c), s	1.7	1.9	16.0	0.0	16.0	2.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.16	0.18	2.28		0.68	0.26
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.8	12.0	0.0	20.0	8.0
Incr Delay (d2), s/veh	0.5	0.6	577.6	0.0	10.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	118.5	0.0	1.5	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.4	589.6	0.0	30.0	8.5
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	233		3239	A		620
Approach Delay, s/veh	8.3		589.6			17.0
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.9
Green Ext Time (p_c), s	0.0				0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	469.8
HCM 6th LOS	F

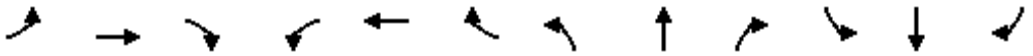
Notes

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



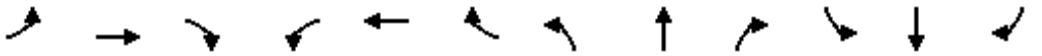
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	526	264	1187	0	0	760
Future Volume (vph)	526	264	1187	0	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3322		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3322		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	572	287	1290	0	0	826
RTOR Reduction (vph)	8	0	0	0	0	0
Lane Group Flow (vph)	851	0	1290	0	0	826
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1328		2034			2563
v/s Ratio Prot	c0.26		c0.25			0.13
v/s Ratio Perm						
v/c Ratio	0.64		0.63			0.32
Uniform Delay, d1	9.7		9.6			8.3
Progression Factor	1.00		0.66			1.00
Incremental Delay, d2	2.4		1.1			0.3
Delay (s)	12.1		7.4			8.6
Level of Service	B		A			A
Approach Delay (s)	12.1		7.4			8.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	290	101	0	0	0	134	1031	441	91	895	324
Future Volume (vph)	174	290	101	0	0	0	134	1031	441	91	895	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4857		1770	4883	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4857		466	4883	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	315	110	0	0	0	146	1121	479	99	973	352
RTOR Reduction (vph)	0	25	0	0	0	0	0	193	0	0	163	0
Lane Group Flow (vph)	0	589	0	0	0	0	146	1407	0	99	1162	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1942		186	1953	
v/s Ratio Prot								0.29			0.24	
v/s Ratio Perm		0.17					c0.31			0.21		
v/c Ratio		0.43					0.78	0.72		0.53	0.59	
Uniform Delay, d1		8.7					10.5	10.1		9.1	9.4	
Progression Factor		1.00					1.00	1.00		0.67	0.61	
Incremental Delay, d2		1.0					27.5	2.4		9.6	1.2	
Delay (s)		9.7					38.0	12.5		15.7	7.0	
Level of Service		A					D	B		B	A	
Approach Delay (s)		9.7			0.0			14.7			7.6	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

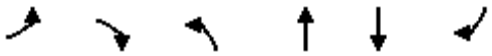


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	706	75	47	55	415	35	332	810	38	21	575	561
Future Volume (vph)	706	75	47	55	415	35	332	810	38	21	575	561
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1841		1770	3516		1770	4569	1362
Flt Permitted	0.33	0.36		0.31	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	593	625		579	1841		466	3516		466	4569	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	767	82	51	60	451	38	361	880	41	23	625	610
RTOR Reduction (vph)	0	11	0	0	8	0	0	8	0	0	151	151
Lane Group Flow (vph)	414	475	0	60	481	0	361	913	0	23	779	154
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	237	250		231	736		186	1406		186	1827	544
v/s Ratio Prot					0.26			0.26			0.17	
v/s Ratio Perm	0.70	c0.76		0.10			c0.78			0.05		0.11
v/c Ratio	1.75	1.90		0.26	0.65		1.94	0.65		0.12	0.43	0.28
Uniform Delay, d1	12.0	12.0		8.0	9.7		12.0	9.7		7.6	8.7	8.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	353.0	420.0		2.7	4.5		442.5	2.3		1.4	0.7	1.3
Delay (s)	365.0	432.0		10.7	14.2		454.5	12.1		8.9	9.4	9.4
Level of Service	F	F		B	B		F	B		A	A	A
Approach Delay (s)		401.2			13.9			136.6			9.4	
Approach LOS		F			B			F			A	

Intersection Summary			
HCM 2000 Control Delay	139.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.92		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	358	85	463	758	604	385
Future Volume (veh/h)	358	85	463	758	604	385
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	389	92	503	824	657	418
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	319	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	525	3647	3647	1585
Grp Volume(v), veh/h	389	92	503	824	657	418
Grp Sat Flow(s),veh/h/ln	1728	1585	525	1777	1777	1585
Q Serve(g_s), s	3.0	1.5	10.6	7.2	5.4	8.6
Cycle Q Clear(g_c), s	3.0	1.5	16.0	7.2	5.4	8.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	319	1421	1421	634
V/C Ratio(X)	0.28	0.15	1.58	0.58	0.46	0.66
Avail Cap(c_a), veh/h	1382	634	319	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.1	7.6	17.7	9.4	8.8	9.8
Incr Delay (d2), s/veh	0.5	0.5	275.2	1.7	1.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.5	27.0	2.4	1.7	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6	8.1	292.9	11.1	9.9	15.1
LnGrp LOS	A	A	F	B	A	B
Approach Vol, veh/h	481			1327	1075	
Approach Delay, s/veh	8.5			117.9	11.9	
Approach LOS	A			F	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		5.0		10.6
Green Ext Time (p_c), s		0.0		1.3		2.8

Intersection Summary	
HCM 6th Ctrl Delay	60.2
HCM 6th LOS	E



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	113	240	2310	11	396	520
Future Volume (veh/h)	113	240	2310	11	396	520
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	261	2511	0	430	565
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	252	3647
Grp Volume(v), veh/h	123	261	2511	0	430	565
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	126	1777
Q Serve(g_s), s	1.8	4.7	16.0	0.0	0.0	4.5
Cycle Q Clear(g_c), s	1.8	4.7	16.0	0.0	16.0	4.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.17	0.41	1.77		1.19	0.40
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	8.6	12.0	0.0	20.0	8.6
Incr Delay (d2), s/veh	0.5	2.0	347.8	0.0	111.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	73.1	0.0	7.1	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	10.6	359.8	0.0	131.6	9.4
LnGrp LOS	A	B	F		F	A
Approach Vol, veh/h	384		2511	A		995
Approach Delay, s/veh	9.8		359.8			62.2
Approach LOS	A		F			E

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	6.7
Green Ext Time (p_c), s	0.0				0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	249.1
HCM 6th LOS	F

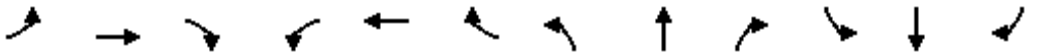
Notes

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



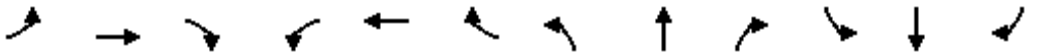
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	912	124	474	0	0	1736
Future Volume (vph)	912	124	474	0	0	1736
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.98		1.00			1.00
Flt Protected	0.96		1.00			1.00
Satd. Flow (prot)	3399		5085			6408
Flt Permitted	0.96		1.00			1.00
Satd. Flow (perm)	3399		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	991	135	515	0	0	1887
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	1098	0	515	0	0	1887
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1359		2034			2563
v/s Ratio Prot	c0.32		0.10			c0.29
v/s Ratio Perm						
v/c Ratio	0.81		0.25			0.74
Uniform Delay, d1	10.6		8.0			10.2
Progression Factor	1.00		0.79			1.00
Incremental Delay, d2	5.3		0.3			1.9
Delay (s)	15.9		6.6			12.1
Level of Service	B		A			B
Approach Delay (s)	15.9		6.6			12.1
Approach LOS	B		A			B

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



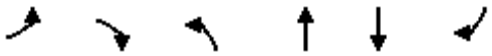
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	396	215	0	0	0	31	332	189	215	1917	517
Future Volume (vph)	156	396	215	0	0	0	31	332	189	215	1917	517
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.96					1.00	0.95		1.00	0.97	
Flt Protected		0.99					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3356					1770	4809		1770	4923	
Flt Permitted		0.99					0.25	1.00		0.43	1.00	
Satd. Flow (perm)		3356					466	4809		799	4923	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	430	234	0	0	0	34	361	205	234	2084	562
RTOR Reduction (vph)	0	1	0	0	0	0	0	123	0	0	122	0
Lane Group Flow (vph)	0	833	0	0	0	0	34	443	0	234	2524	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1342					186	1923		319	1969	
v/s Ratio Prot								0.09			c0.51	
v/s Ratio Perm		0.25					0.07			0.29		
v/c Ratio		0.62					0.18	0.23		0.73	1.28	
Uniform Delay, d1		9.6					7.8	7.9		10.2	12.0	
Progression Factor		1.00					1.00	1.00		0.74	0.64	
Incremental Delay, d2		2.2					2.2	0.3		9.0	129.4	
Delay (s)		11.7					9.9	8.2		16.6	137.1	
Level of Service		B					A	A		B	F	
Approach Delay (s)		11.7			0.0			8.3			127.4	
Approach LOS		B			A			A			F	

Intersection Summary			
HCM 2000 Control Delay	88.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	627	57	103	125	190	15	176	249	17	18	1558	195
Future Volume (vph)	627	57	103	125	190	15	176	249	17	18	1558	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1653		1770	1843		1770	3506		1770	4797	1362
Flt Permitted	0.62	0.69		0.35	1.00		0.25	1.00		0.57	1.00	1.00
Satd. Flow (perm)	1096	1173		661	1843		466	3506		1071	4797	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	682	62	112	136	207	16	191	271	18	20	1693	212
RTOR Reduction (vph)	0	2	0	0	7	0	0	11	0	0	3	115
Lane Group Flow (vph)	409	445	0	136	216	0	191	278	0	20	1711	76
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	438	469		264	737		186	1402		428	1918	544
v/s Ratio Prot					0.12			0.08			0.36	
v/s Ratio Perm	0.37	c0.38		0.21			c0.41			0.02		0.06
v/c Ratio	0.93	0.95		0.52	0.29		1.03	0.20		0.05	0.89	0.14
Uniform Delay, d1	11.5	11.6		9.1	8.2		12.0	7.8		7.3	11.2	7.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	29.2	30.7		7.0	1.0		73.2	0.3		0.2	6.8	0.5
Delay (s)	40.7	42.3		16.1	9.2		85.2	8.1		7.5	18.0	8.2
Level of Service	D	D		B	A		F	A		A	B	A
Approach Delay (s)		41.5			11.8			38.8			16.9	
Approach LOS		D			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	550	42	99	219	1270	242
Future Volume (veh/h)	550	42	99	219	1270	242
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	598	46	108	238	1380	263
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	186	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	305	3647	3647	1585
Grp Volume(v), veh/h	598	46	108	238	1380	263
Grp Sat Flow(s),veh/h/ln	1728	1585	305	1777	1777	1585
Q Serve(g_s), s	5.0	0.7	0.8	1.7	15.2	4.8
Cycle Q Clear(g_c), s	5.0	0.7	16.0	1.7	15.2	4.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	186	1421	1421	634
V/C Ratio(X)	0.43	0.07	0.58	0.17	0.97	0.41
Avail Cap(c_a), veh/h	1382	634	186	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.7	7.4	20.0	7.7	11.8	8.6
Incr Delay (d2), s/veh	1.0	0.2	12.6	0.3	17.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.2	1.5	0.5	7.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	7.6	32.6	8.0	29.6	10.6
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	644			346	1643	
Approach Delay, s/veh	9.5			15.7	26.6	
Approach LOS	A			B	C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		7.0		17.2
Green Ext Time (p_c), s		0.0		1.7		0.0

Intersection Summary		
HCM 6th Ctrl Delay		21.0
HCM 6th LOS		C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	474	73	302	6	787	2913
Future Volume (veh/h)	474	73	302	6	787	2913
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	515	79	328	0	855	3166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		1052	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	2041	3647
Grp Volume(v), veh/h	515	79	328	0	855	3166
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1020	1777
Q Serve(g_s), s	9.8	1.3	2.4	0.0	13.6	16.0
Cycle Q Clear(g_c), s	9.8	1.3	2.4	0.0	16.0	16.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		1052	1421
V/C Ratio(X)	0.72	0.12	0.23		0.81	2.23
Avail Cap(c_a), veh/h	713	634	1421		1052	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	7.6	7.9	0.0	14.5	12.0
Incr Delay (d2), s/veh	6.3	0.4	0.4	0.0	6.9	554.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.4	0.8	0.0	4.3	113.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	8.0	8.3	0.0	21.4	566.6
LnGrp LOS	B	A	A		C	F
Approach Vol, veh/h	594		328	A		4021
Approach Delay, s/veh	15.3		8.3			450.6
Approach LOS	B		A			F

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.0			20.0	20.0
Change Period (Y+Rc), s	4.0			4.0	4.0
Max Green Setting (Gmax), s	16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s	4.4			18.0	11.8
Green Ext Time (p_c), s	1.6			0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	369.0
HCM 6th LOS	F

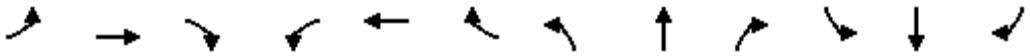
Notes

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



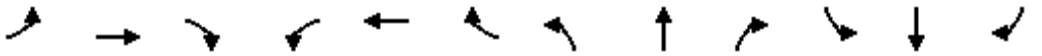
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	352	280	1478	0	0	745
Future Volume (vph)	352	280	1478	0	0	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.93		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3282		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3282		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	383	304	1607	0	0	810
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	685	0	1607	0	0	810
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1312		2034			2563
v/s Ratio Prot	c0.21		c0.32			0.13
v/s Ratio Perm						
v/c Ratio	0.52		0.79			0.32
Uniform Delay, d1	9.1		10.5			8.2
Progression Factor	1.00		0.73			1.00
Incremental Delay, d2	1.5		1.7			0.3
Delay (s)	10.6		9.4			8.6
Level of Service	B		A			A
Approach Delay (s)	10.6		9.4			8.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	410	98	0	0	0	204	1213	496	84	712	304
Future Volume (vph)	264	410	98	0	0	0	204	1213	496	84	712	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.98					1.00	0.96		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3413					1770	4864		1770	4857	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3413					466	4864		466	4857	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	446	107	0	0	0	222	1318	539	91	774	330
RTOR Reduction (vph)	0	29	0	0	0	0	0	153	0	0	193	0
Lane Group Flow (vph)	0	811	0	0	0	0	222	1704	0	91	911	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1365					186	1945		186	1942	
v/s Ratio Prot								0.35			0.19	
v/s Ratio Perm		0.24					c0.48			0.20		
v/c Ratio		0.59					1.19	0.88		0.49	0.47	
Uniform Delay, d1		9.4					12.0	11.1		9.0	8.9	
Progression Factor		1.00					1.00	1.00		0.62	0.54	
Incremental Delay, d2		1.9					127.8	5.9		8.4	0.8	
Delay (s)		11.4					139.8	17.0		13.9	5.5	
Level of Service		B					F	B		B	A	
Approach Delay (s)		11.4			0.0			30.1			6.2	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

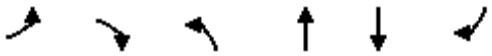


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	77	49	33	478	17	276	848	49	23	564	755
Future Volume (vph)	540	77	49	33	478	17	276	848	49	23	564	755
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.94	0.85
Flt Protected	0.95	0.97		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1679		1770	1853		1770	3510		1770	4517	1362
Flt Permitted	0.28	0.32		0.41	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	501	553		760	1853		466	3510		466	4517	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	587	84	53	36	520	18	300	922	53	25	613	821
RTOR Reduction (vph)	0	14	0	0	3	0	0	10	0	0	119	119
Lane Group Flow (vph)	323	387	0	36	535	0	300	965	0	25	905	291
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	200	221		304	741		186	1404		186	1806	544
v/s Ratio Prot					0.29			0.27			0.20	
v/s Ratio Perm	0.64	c0.70		0.05			c0.64			0.05		0.21
v/c Ratio	1.61	1.75		0.12	0.72		1.61	0.69		0.13	0.50	0.53
Uniform Delay, d1	12.0	12.0		7.6	10.1		12.0	9.9		7.6	9.0	9.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	298.7	356.4		0.8	6.0		299.3	2.8		1.5	1.0	3.7
Delay (s)	310.7	368.4		8.4	16.1		311.3	12.7		9.1	10.0	12.9
Level of Service	F	F		A	B		F	B		A	A	B
Approach Delay (s)		342.7			15.7			82.9			10.8	
Approach LOS		F			B			F			B	

Intersection Summary			
HCM 2000 Control Delay	93.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.68		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
13: Skirball Center Drive & I-405 Ramps

11/05/2019



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	334	78	808	561	303	239
Future Volume (veh/h)	334	78	808	561	303	239
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	363	85	878	610	329	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	460	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	827	3647	3647	1585
Grp Volume(v), veh/h	363	85	878	610	329	260
Grp Sat Flow(s),veh/h/ln	1728	1585	827	1777	1777	1585
Q Serve(g_s), s	2.8	1.4	13.6	5.0	2.4	4.7
Cycle Q Clear(g_c), s	2.8	1.4	16.0	5.0	2.4	4.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	460	1421	1421	634
V/C Ratio(X)	0.26	0.13	1.91	0.43	0.23	0.41
Avail Cap(c_a), veh/h	1382	634	460	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	7.6	15.9	8.7	7.9	8.6
Incr Delay (d2), s/veh	0.5	0.4	416.6	0.9	0.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	57.0	1.6	0.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	8.0	432.4	9.6	8.3	10.6
LnGrp LOS	A	A	F	A	A	B
Approach Vol, veh/h	448			1488	589	
Approach Delay, s/veh	8.4			259.1	9.3	
Approach LOS	A			F	A	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	20.0		20.0		20.0
Change Period (Y+Rc), s	4.0		4.0		4.0
Max Green Setting (Gmax), s	16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s	18.0		4.8		6.7
Green Ext Time (p_c), s	0.0		1.3		2.1

Intersection Summary	
HCM 6th Ctrl Delay	156.4
HCM 6th LOS	F



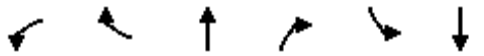
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	107	108	2982	9	229	348
Future Volume (veh/h)	107	108	2982	9	229	348
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	117	3241	0	249	378
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	120	3647
Grp Volume(v), veh/h	116	117	3241	0	249	378
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	60	1777
Q Serve(g_s), s	1.7	1.9	16.0	0.0	0.0	2.9
Cycle Q Clear(g_c), s	1.7	1.9	16.0	0.0	16.0	2.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.16	0.18	2.28		0.69	0.27
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.8	12.0	0.0	20.0	8.1
Incr Delay (d2), s/veh	0.5	0.6	578.3	0.0	10.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	118.6	0.0	1.5	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.4	590.3	0.0	30.4	8.5
LnGrp LOS	A	A	F		C	A
Approach Vol, veh/h	233		3241	A		627
Approach Delay, s/veh	8.3		590.3			17.2
Approach LOS	A		F			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	3.9
Green Ext Time (p_c), s	0.0				0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	469.6
HCM 6th LOS	F

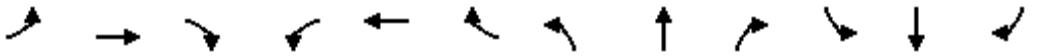
Notes

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



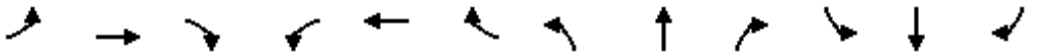
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	529	264	1187	0	0	760
Future Volume (vph)	529	264	1187	0	0	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	0.97		0.91			0.86
Frt	0.95		1.00			1.00
Flt Protected	0.97		1.00			1.00
Satd. Flow (prot)	3322		5085			6408
Flt Permitted	0.97		1.00			1.00
Satd. Flow (perm)	3322		5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	575	287	1290	0	0	826
RTOR Reduction (vph)	8	0	0	0	0	0
Lane Group Flow (vph)	854	0	1290	0	0	826
Turn Type	Prot		NA			NA
Protected Phases	8		2			6
Permitted Phases						
Actuated Green, G (s)	16.0		16.0			16.0
Effective Green, g (s)	16.0		16.0			16.0
Actuated g/C Ratio	0.40		0.40			0.40
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	1328		2034			2563
v/s Ratio Prot	c0.26		c0.25			0.13
v/s Ratio Perm						
v/c Ratio	0.64		0.63			0.32
Uniform Delay, d1	9.7		9.6			8.3
Progression Factor	1.00		0.66			1.00
Incremental Delay, d2	2.4		1.1			0.3
Delay (s)	12.1		7.5			8.6
Level of Service	B		A			A
Approach Delay (s)	12.1		7.5			8.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



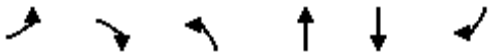
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	290	101	0	0	0	134	1031	443	91	898	324
Future Volume (vph)	174	290	101	0	0	0	134	1031	443	91	898	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95					1.00	0.91		1.00	0.91	
Frt		0.97					1.00	0.95		1.00	0.96	
Flt Protected		0.98					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3392					1770	4856		1770	4883	
Flt Permitted		0.98					0.25	1.00		0.25	1.00	
Satd. Flow (perm)		3392					466	4856		466	4883	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	315	110	0	0	0	146	1121	482	99	976	352
RTOR Reduction (vph)	0	25	0	0	0	0	0	194	0	0	163	0
Lane Group Flow (vph)	0	589	0	0	0	0	146	1409	0	99	1165	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		16.0					16.0	16.0		16.0	16.0	
Effective Green, g (s)		16.0					16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.40					0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0					4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1356					186	1942		186	1953	
v/s Ratio Prot								0.29			0.24	
v/s Ratio Perm		0.17					c0.31			0.21		
v/c Ratio		0.43					0.78	0.73		0.53	0.60	
Uniform Delay, d1		8.7					10.5	10.1		9.1	9.5	
Progression Factor		1.00					1.00	1.00		0.67	0.61	
Incremental Delay, d2		1.0					27.5	2.4		9.6	1.2	
Delay (s)		9.7					38.0	12.5		15.7	7.0	
Level of Service		A					D	B		B	A	
Approach Delay (s)		9.7			0.0			14.7			7.6	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	706	75	47	55	415	35	332	812	38	21	577	561
Future Volume (vph)	706	75	47	55	415	35	332	812	38	21	577	561
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00		1.00	0.95		1.00	0.86	0.86
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.95	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1681		1770	1841		1770	3516		1770	4570	1362
Flt Permitted	0.33	0.36		0.31	1.00		0.25	1.00		0.25	1.00	1.00
Satd. Flow (perm)	593	625		579	1841		466	3516		466	4570	1362
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	767	82	51	60	451	38	361	883	41	23	627	610
RTOR Reduction (vph)	0	11	0	0	8	0	0	8	0	0	151	151
Lane Group Flow (vph)	414	475	0	60	481	0	361	916	0	23	781	154
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	237	250		231	736		186	1406		186	1828	544
v/s Ratio Prot					0.26			0.26			0.17	
v/s Ratio Perm	0.70	c0.76		0.10			c0.78			0.05		0.11
v/c Ratio	1.75	1.90		0.26	0.65		1.94	0.65		0.12	0.43	0.28
Uniform Delay, d1	12.0	12.0		8.0	9.7		12.0	9.7		7.6	8.7	8.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	353.0	420.0		2.7	4.5		442.5	2.4		1.4	0.7	1.3
Delay (s)	365.0	432.0		10.7	14.2		454.5	12.1		8.9	9.4	9.4
Level of Service	F	F		B	B		F	B		A	A	A
Approach Delay (s)		401.2			13.9			136.4			9.4	
Approach LOS		F			B			F			A	

Intersection Summary			
HCM 2000 Control Delay	139.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.92		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	365	85	463	767	621	389
Future Volume (veh/h)	365	85	463	767	621	389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	397	92	503	834	675	423
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1382	634	313	1421	1421	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	3456	1585	514	3647	3647	1585
Grp Volume(v), veh/h	397	92	503	834	675	423
Grp Sat Flow(s),veh/h/ln	1728	1585	514	1777	1777	1585
Q Serve(g_s), s	3.1	1.5	10.4	7.4	5.6	8.7
Cycle Q Clear(g_c), s	3.1	1.5	16.0	7.4	5.6	8.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1382	634	313	1421	1421	634
V/C Ratio(X)	0.29	0.15	1.61	0.59	0.47	0.67
Avail Cap(c_a), veh/h	1382	634	313	1421	1421	634
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.1	7.6	17.8	9.4	8.9	9.8
Incr Delay (d2), s/veh	0.5	0.5	287.2	1.8	1.1	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.5	27.6	2.4	1.8	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7	8.1	305.0	11.2	10.0	15.3
LnGrp LOS	A	A	F	B	B	B
Approach Vol, veh/h	489			1337	1098	
Approach Delay, s/veh	8.6			121.7	12.1	
Approach LOS	A			F	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		5.1		10.7
Green Ext Time (p_c), s		0.0		1.4		2.8

Intersection Summary	
HCM 6th Ctrl Delay	61.6
HCM 6th LOS	E



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	113	240	2316	11	404	527
Future Volume (veh/h)	113	240	2316	11	404	527
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	261	2517	0	439	573
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	713	634	1421		360	1421
Arrive On Green	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	1781	1585	3647	1585	250	3647
Grp Volume(v), veh/h	123	261	2517	0	439	573
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	125	1777
Q Serve(g_s), s	1.8	4.7	16.0	0.0	0.0	4.6
Cycle Q Clear(g_c), s	1.8	4.7	16.0	0.0	16.0	4.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	713	634	1421		360	1421
V/C Ratio(X)	0.17	0.41	1.77		1.22	0.40
Avail Cap(c_a), veh/h	713	634	1421		360	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	8.6	12.0	0.0	20.0	8.6
Incr Delay (d2), s/veh	0.5	2.0	349.7	0.0	121.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	73.5	0.0	7.5	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	10.6	361.7	0.0	141.4	9.4
LnGrp LOS	A	B	F		F	A
Approach Vol, veh/h	384		2517	A		1012
Approach Delay, s/veh	9.8		361.7			66.7
Approach LOS	A		F			E

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	20.0
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	16.0				16.0	16.0
Max Q Clear Time (g_c+I1), s	18.0				18.0	6.7
Green Ext Time (p_c), s	0.0				0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	250.9
HCM 6th LOS	F

Notes

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

Appendix 14.2

LADOT Transportation Assessment Approval Letter

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

16180 W. Mulholland Dr.
DOT Case No. Other WLA16-105026

Date: August 14, 2020

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Hamed Sandoghdar, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF MIRMAN SCHOOL LOCATED AT 16180 MULLHOLLAND DRIVE**

The DOT has reviewed the transportation analysis prepared by Gibson Transportation Consulting, Inc. received on May 13, 2020, with subsequent revision on July 22, 2020, for the proposed project located at 16180 West Mulholland Drive. In compliance with SB 743 and the CEQA, a VMT analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to increase the student enrollment at the existing Mirman School for Gifted Children located on the south side of Mulholland Drive west of Sepulveda Boulevard. The school has been in operation at this current location since 1971 and operates under a Conditional Use Permit that allows a maximum enrollment of 330 students. The school is proposing to increase the total enrollment to 430 students. The enrollment increase will also be accompanied by new construction to provide additional classrooms, lab space, athletic facilities and other support facilities. Access to the campus will be provided via three existing driveways on the south side of Mulholland Drive with the main entrance being the westerly driveway. The project is proposing to install a new traffic signal at the main driveway on Mulholland Drive. A copy of the site plan is provided as **Attachment A**. The school is expected to be reach maximum enrollment by 2025.

B. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project would generate a net increase of 234 daily vehicle trips. Therefore, a VMT analysis is not required and it is concluded that implementation of the Project would not result in a significant Household and Work VMT. The VMT calculator version 1.2 was the latest VMT calculator available at the time the May 13, 2020 analysis was submitted and accepted by DOT. A copy of the VMT calculator screening pages is provided as **Attachment B** to this report.

C. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. Although not required, the project has completed a voluntary circulation analysis using the previous "level of service" screening methodology that indicates that the trips generated by the proposed development will not result in adverse circulation conditions at any location. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as (Table 9) **Attachment C** to this report.

PROJECT REQUIREMENTS

A. Operational Improvement Measures (Non-CEQA Analysis)

In the transportation analysis dated May 13, 2020 by Gibson Transportation Consulting, Inc., the analysis included a review of current and potential future operational deficiencies that may result from the project. To address these deficiencies, the applicant has proposed to implement the following measures.

1. Mulholland Drive and West Driveway Signal

The applicant is proposing the installation of a new traffic signal at the westerly driveway on Mulholland Drive to improve safety and operation. A Final approval will be required by DOT West Valley District Office and DOT Signal Design Section.

B. Additional Requirements and Considerations

To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

1. Parking Requirements

Parking for vehicles and bicycles will be provided onsite. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for this project.

2. Highway Dedication and Street Widening Requirements

In order to mitigate potential access and circulation impacts, the applicant may be required to make highway dedications and improvements. The applicant shall consult the Bureau of Engineering (BOE) for any highway dedication or street widening requirements. These requirements must be guaranteed before the issuance of any building permit through the B-permit process of the BOE. They must be constructed and completed prior to the issuance of any certificate of occupancy to the satisfaction of DOT and BOE.

3. Project Access and Circulation
The proposed site plan is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's West LA/Coastal Development Review Section (7166 W Manchester Ave, @ 213-485-1062). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project from public streets via any of the project driveways.

4. Worksite Traffic Control Requirements
DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

5. Development Review Fees
Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

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

Attachments

c: Valentina Knox-Jones, DCP
Jason Douglas, Council District No. 11
Ken Firoozmand, DOT
Kevin Azarmahan, BOE
Patrick Gibson, Gibson Transportation Consulting, Inc.



Source: Johnson Favaro Architecture & Urban Design. December, 2019.

PROJECT SITE PLAN

FIGURE 1

16180 W.Mulholland Dr.-OtherWLA16-105026

Attachment "B"

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

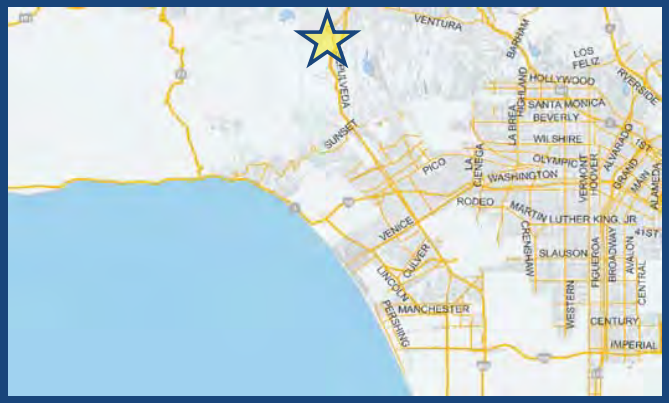
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: Mirman School

Scenario: Wth Project Conditions

Address: 16180 MULHOLLAND DR, 90049



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

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	330	Students
School | Private School (K-12)	330	Students

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

Proposed Project Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	100	Students
School | Private School (K-12)	430	Students

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

Project Screening Summary

Existing Land Use	Proposed Project
776 Daily Vehicle Trips	1,010 Daily Vehicle Trips
9,254 Daily VMT	12,046 Daily VMT

Tier 1 Screening Criteria

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

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	234 Net Daily Trips
The net increase in daily VMT ≤ 0	2,792 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is not required to perform VMT analysis.

Measuring the Miles

7/22/2020

TABLE 9
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.446	A	0.446	A	0.000	NO
		School PM	0.279	A	0.279	A	0.000	NO
		PM	0.568	A	0.568	A	0.000	NO
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.816	D	0.818	D	0.002	NO
		School PM	0.398	A	0.398	A	0.000	NO
		PM	0.719	C	0.719	C	0.000	NO
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.903	E	0.905	E	0.002	NO
		School PM	0.672	B	0.675	B	0.003	NO
		PM	0.863	D	0.863	D	0.000	NO
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.741	C	0.743	C	0.002	NO
		School PM	0.828	D	0.829	D	0.001	NO
		PM	0.856	D	0.856	D	0.000	NO
5.	Sepulveda Boulevard & Fiume Walk	AM	0.647	B	0.647	B	0.000	NO
		School PM	0.285	A	0.286	A	0.001	NO
		PM	0.438	A	0.438	A	0.000	NO
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.718	C	0.720	C	0.002	NO
		School PM	0.498	A	0.499	A	0.001	NO
		PM	0.541	A	0.542	A	0.001	NO
11.	Walt Disney Drive & Mulholland Drive	AM	0.464	A	0.475	A	0.011	NO
		School PM	0.499	A	0.515	A	0.016	NO
		PM	0.487	A	0.494	A	0.007	NO
12.	Skirball Center Drive & Mulholland Drive	AM	0.845	D	0.864	D	0.019	NO
		School PM	0.560	A	0.571	A	0.011	NO
		PM	0.384	A	0.388	A	0.004	NO
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.654	B	0.668	B	0.014	NO
		School PM	0.483	A	0.492	A	0.009	NO
		PM	0.755	C	0.759	C	0.004	NO
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.116	F	1.123	F	0.007	NO
		School PM	0.656	B	0.663	B	0.007	NO
		PM	0.863	D	0.865	D	0.002	NO
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.095	F	1.098	F	0.003	NO
		School PM	0.811	D	0.815	D	0.004	NO
		PM	1.035	F	1.037	F	0.002	NO
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.929	E	0.932	E	0.003	NO
		School PM	0.439	A	0.441	A	0.002	NO
		PM	0.861	D	0.862	D	0.001	NO

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Appendix 14.**3**

Related Projects Technical Memorandum

MEMORANDUM

TO: Stephanie Eyestone-Jones, Eyestone Environmental

FROM: Patrick A. Gibson, P.E., PTOE
Richard Gibson, LEED Green Associate

DATE: July 26, 2021

RE: Traffic Analysis of Updated Related Projects List for the Mirman School for Gifted Children Project
Los Angeles, California **Ref:** J1374

This memorandum presents the findings of a traffic analysis of an updated list of Related Projects near the proposed Mirman School for Gifted Children expansion project (Project) at 16180 West Mulholland Drive (Project Site) in the City of Los Angeles (City). The traffic analysis is consistent with the methodology, assumptions, and analysis presented in *Transportation Assessment for the Mirman School for Gifted Children* (Gibson Transportation Consulting, Inc., July 2020) (Transportation Study), which was reviewed and approved by the Los Angeles Department of Transportation (LADOT) in an Assessment Letter dated August 14, 2020, provided as Attachment A.

RELATED PROJECTS BACKGROUND

There are numerous private schools that are growing rapidly and new projects being proposed regularly in the vicinity of the Project Site. For example, Wise School recently proposed various campus improvements as well as increased enrollment. As such, an evaluation of the most recent set of potential Related Projects was conducted even though the Related Project list contained in the Transportation Study met all of the California Environmental Quality Act criteria for that analysis.

The Transportation Study included a list, current as of August 2019, of 12 Related Projects located within two miles of the Project Site. An updated Related Projects list that added four projects and removed seven inactive projects was provided by LADOT with input from the Los Angeles Department of City Planning (LADCP). Table 1 shows the four additional projects, highlighted green, that were added between August 2019 and March 2021, along with the five projects that remain unchanged (highlighted yellow) and the seven projects removed (highlighted red).

Not all of the potential Related Projects in this list are likely to be constructed by the Year 2025 opening of the Project and some will be reduced in size or not constructed at all. However, in order to provide a conservatively high analysis, all 16 projects, both active and inactive, (the 16 Related Projects) were assumed to be active projects that will be constructed by Year 2025.

The August 2019 active Related Projects vary in trip generation from 19 afternoon peak hour trips to 140 afternoon peak hour trips, as shown in Table 1. As shown in Table 5 of the Transportation Study, provided in Attachment B, the total trip generation was 9,478 daily trips, with 678 trips in the morning peak hour and 781 in the afternoon peak hour.

As shown in Table 1, the currently active Related Projects generate a total of 6,238 daily trips, with 523 trips in the morning peak hour and 562 in the afternoon peak hour. This represents a reduction of approximately 28% and 22%, respectively, of the morning and afternoon peak hour trips studied in the Transportation Study.

The 16 Related Projects would generate a total trip of 12,088 daily trips, with 838 trips in the morning peak hour and 1,060 in the afternoon peak hour, an increase of approximately 23% and 35%, respectively, of the peak hour Related Project trips studied in the Transportation Study.

As shown in Figure 1, new Related Projects (illustrated in green) and all but one of the removed Related Projects (illustrated in red) are located along the Ventura Boulevard and Mulholland Drive corridors. The majority of the Related Projects are located along the Ventura Corridor and will not contribute significant volume increases to any intersections studied in the Transportation Study, as there are multiple alternate routes to access freeways and other major arterials from those locations.

TRIP GENERATION

Trip generation estimates for the Project were developed using published rates from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) and assumptions consistent with LADOT's *Transportation Assessment Guidelines* (September 2020). As summarized in Table 7 of the Transportation Study, provided in Attachment B, the Project is estimated to generate a total of 91 net new morning peak hour trips (50 inbound, 41 outbound), 62 net new afternoon school peak trips (29 inbound, 33 outbound), and 26 net new afternoon commuter peak hour trips (12 inbound, 14 outbound).

TRAFFIC IMPACT ANALYSIS

The distribution patterns and analysis methodology described in the Transportation Study were utilized to analyze the potential traffic impacts of the Project assuming that all 16 Related Projects were included in the background traffic conditions. Traffic impacts were evaluated for Future Conditions with and without the addition of the Project.

Project with August 2019 Related Projects List

As shown in Table 9 of the Transportation Study, provided in Attachment B, the Project would not result in any impact at the 16 study intersections under Future with Project Conditions.

Project with Combined August 2019 and March 2021 Related Projects List

The trip generation of the Project remains unchanged with inclusion of the 16 Related Projects.

As shown in Table 2, the new trips resulting from the increase in Related Project trips results in minor differences to the volume-to-capacity ratios, but do not result in any study intersection currently operating at an acceptable level of service (LOS) to degrade to an unacceptable LOS.

The capacity calculation worksheets are provided in Attachment C.

SUMMARY

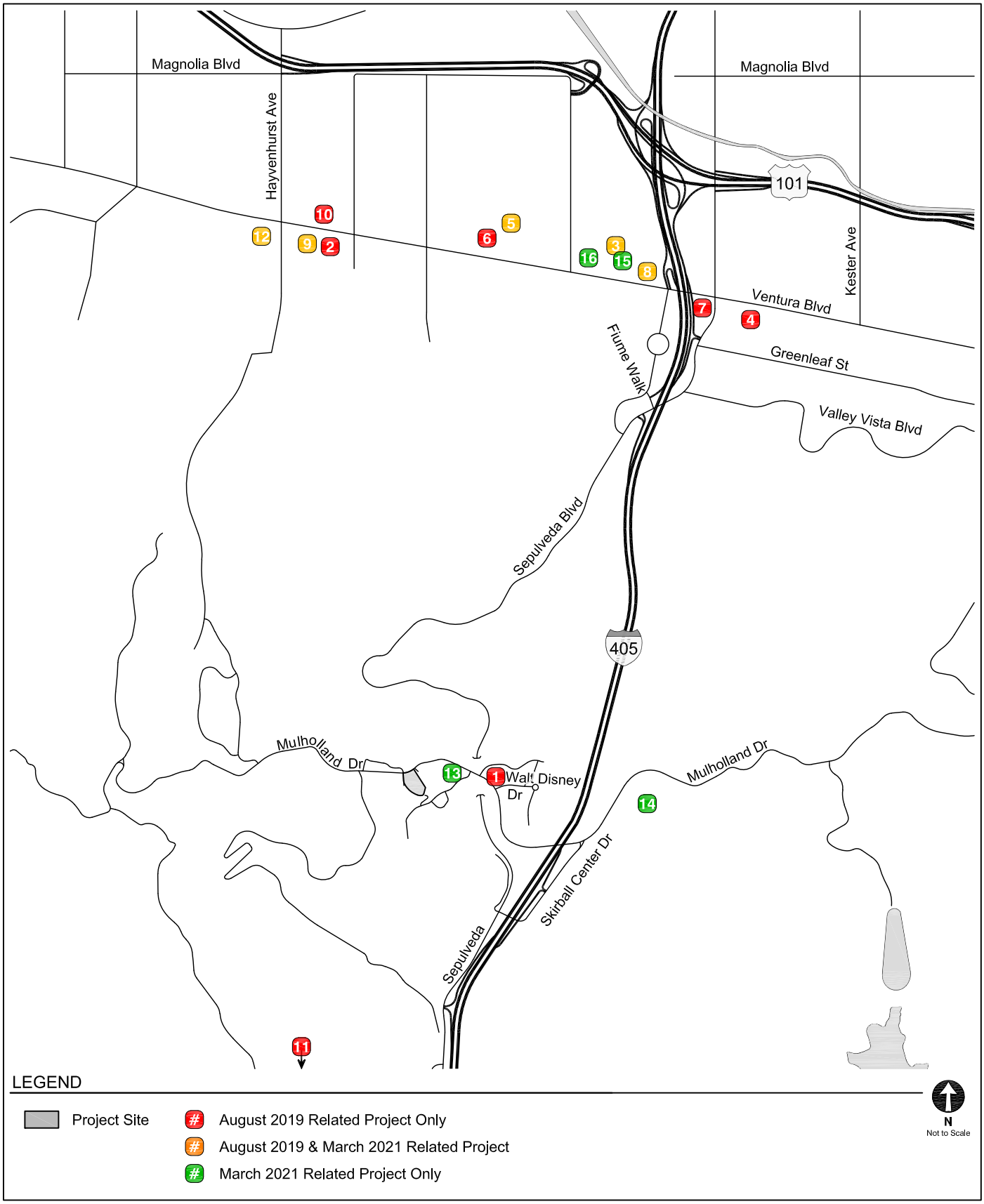
- LADCP and LADOT updated the August 2019 Related Projects list used in the approved Transportation Study for the Project.

- The updated list combined with the August 2019 list results in a total of 16 Related Projects that could be constructed in the Study Area.

- A new analysis was conducted conservatively assuming that all 16 Related Projects would be built by the Year 2025 opening of the Project notwithstanding that City records show seven of the 16 Related Projects to be inactive.

- Although the background conditions at the study intersections degraded slightly as a result of the additional Related Projects traffic, the results of the analysis remained the same as reported in the Transportation Study. The incremental addition of Project trips to the larger background traffic conditions resulted in the same conclusions as the Transportation Study.

- The conclusions of the Transportation Study for the Project remain valid with the 16 Related Projects included in the analysis.



LOCATIONS OF RELATED PROJECTS

FIGURE 1

TABLE 1
UPDATED RELATED PROJECTS

No	Project [a]	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Curtis School	15871 W Mulholland Drive	TDM program per conditional use permit	0	0	27	27	0	27	27
2.	Woodrise Mixed-Use	16130 Ventura Boulevard	51 apartment units with 19,400 sf retail and 1,063 sf office	1,477	10	34	44	90	50	140
3.	Hotel	15485 Ventura Boulevard	180-room hotel	932	36	25	61	35	33	68
4.	Tract 62077 Mixed-Use	15222 Ventura Boulevard	52 condominium units and 7,460 sf specialty retail	609	9	23	32	27	20	47
5.	Valley Beth Shalom Preschool	15739 Ventura Boulevard	Increase enrollment from 820 students to 1,079 students	1,000	72	63	135	48	53	101
6.	Bank	15821 Ventura Boulevard	6,115 sf bank	623	18	7	25	22	28	50
7.	Coffee Shop	15315 Dickens Street	10,000 sf coffee shop	1,300	60	60	120	70	50	120
8.	Convenience Store	15445 Ventura Boulevard	2,770 sf convenience store	721	38	40	78	26	22	48
9.	Mixed-Use	16206 Ventura Boulevard	12,880 sf mixed-use	726	34	38	72	28	19	47
10.	Apartment	16161 Ventura Boulevard	114 apartment units	758	12	46	58	46	25	71
11.	Recreational Park	2301 N Sepulveda Boulevard	Improvement to a 500-acre recreational park	1,083	6	3	9	26	17	43
12.	Apartments	4741 Libbit Avenue	46 apartment units	249	5	12	17	12	7	19
13.	Stephen Wise Middle School Relocation	15900 Mullholland Drive	Relocation of Middle School	0	7	3	10	0	0	0
14.	Stephen S. Wise Nursery	15500 Stephen Wise Drive	240 student nursery school	1,311	40	27	67	64	97	161
15.	Hotel	15481 Ventura Boulevard	157-room hotel replacing 70-room motel	742	34	13	47	33	34	67
16.	Medical Office	15503 Ventura Boulevard	2,054 sf use change from general office to medical office	557	26	10	36	18	33	51
			Total of All Projects on List:	12,088	307	381	838	430	351	1,060
			Total of Currently Active Projects on List:	6,238	292	231	523	264	298	562

Notes
sf: square feet
[a] Related projects information provided by LADOT, March 2021.
-Job removed from related project list
-Job remains on related project list
-Job recently added to related project list

TABLE 2
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.444	A	0.444	A	0.000	NO
		School PM	0.276	A	0.276	A	0.000	NO
		PM	0.561	A	0.561	A	0.000	NO
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.814	D	0.815	D	0.001	NO
		School PM	0.394	A	0.395	A	0.001	NO
		PM	0.714	C	0.715	C	0.001	NO
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.889	D	0.891	D	0.002	NO
		School PM	0.656	B	0.659	B	0.003	NO
		PM	0.843	D	0.844	D	0.001	NO
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.744	C	0.744	C	0.000	NO
		School PM	0.830	D	0.831	D	0.001	NO
		PM	0.859	D	0.859	D	0.000	NO
5.	Sepulveda Boulevard & Fiume Walk	AM	0.645	B	0.647	B	0.002	NO
		School PM	0.281	A	0.282	A	0.001	NO
		PM	0.433	A	0.433	A	0.000	NO
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.716	C	0.717	C	0.001	NO
		School PM	0.496	A	0.497	A	0.001	NO
		PM	0.540	A	0.540	A	0.000	NO
11.	Walt Disney Drive & Mulholland Drive	AM	0.464	A	0.476	A	0.012	NO
		School PM	0.504	A	0.519	A	0.015	NO
		PM	0.491	A	0.497	A	0.006	NO
12.	Skirball Center Drive & Mulholland Drive	AM	0.870	D	0.889	D	0.019	NO
		School PM	0.613	B	0.624	B	0.011	NO
		PM	0.437	A	0.441	A	0.004	NO
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.664	B	0.679	B	0.015	NO
		School PM	0.494	A	0.502	A	0.008	NO
		PM	0.767	C	0.772	C	0.005	NO
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.116	F	1.123	F	0.007	NO
		School PM	0.679	B	0.686	B	0.007	NO
		PM	0.886	D	0.888	D	0.002	NO
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.092	F	1.094	F	0.002	NO
		School PM	0.821	D	0.824	D	0.003	NO
		PM	1.030	F	1.032	F	0.002	NO
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.927	E	0.930	E	0.003	NO
		School PM	0.435	A	0.437	A	0.002	NO
		PM	0.857	D	0.858	D	0.001	NO

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Attachment A

LADOT Assessment Letter
August 14, 2020

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

16180 W. Mulholland Dr.
DOT Case No. Other WLA16-105626

Date: August 14, 2020

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Hamed Sandoghdar, Transportation Engineer
Department of Transportation

Subject: T**RANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF MIRMAN SCHOOL LOCATED AT 16180 MULLHOLLAND DRIVE**

The DOT has reviewed the transportation analysis prepared by Gibson Transportation Consulting, Inc. received on May 13, 2020, with subsequent revision on July 22, 2020, for the proposed project located at 16180 West Mulholland Drive. In compliance with SB 743 and the CEQA, a VMT analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to increase the student enrollment at the existing Mirman School for Gifted Children located on the south side of Mulholland Drive west of Sepulveda Boulevard. The school has been in operation at this current location since 1971 and operates under a Conditional Use Permit that allows a maximum enrollment of 330 students. The school is proposing to increase the total enrollment to 430 students. The enrollment increase will also be accompanied by new construction to provide additional classrooms, lab space, athletic facilities and other support facilities. Access to the campus will be provided via three existing driveways on the south side of Mulholland Drive with the main entrance being the westerly driveway. The project is proposing to install a new traffic signal at the main driveway on Mulholland Drive. A copy of the site plan is provided as **Attachment A**. The school is expected to be reach maximum enrollment by 2025.

B. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project would generate a net increase of 234 daily vehicle trips. Therefore, a VMT analysis is not required and it is concluded that implementation of the Project would not result in a significant Household and Work VMT. The VMT calculator version 1.2 was the latest VMT calculator available at the time the May 13, 2020 analysis was submitted and accepted by DOT. A copy of the VMT calculator screening pages is provided as **Attachment B** to this report.

C. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. Although not required, the project has completed a voluntary circulation analysis using the previous "level of service" screening methodology that indicates that the trips generated by the proposed development will not result in adverse circulation conditions at any location. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as (Table 9) **Attachment C** to this report.

PROJECT REQUIREMENTS

A. Operational Improvement Measures (Non-CEQA Analysis)

In the transportation analysis dated May 13, 2020 by Gibson Transportation Consulting, Inc., the analysis included a review of current and potential future operational deficiencies that may result from the project. To address these deficiencies, the applicant has proposed to implement the following measures.

1. Mulholland Drive and West Driveway Signal

The applicant is proposing the installation of a new traffic signal at the westerly driveway on Mulholland Drive to improve safety and operation. A Final approval will be required by DOT West Valley District Office and DOT Signal Design Section.

B. Additional Requirements and Considerations

To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

1. Parking Requirements

Parking for vehicles and bicycles will be provided onsite. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for this project.

2. Highway Dedication and Street Widening Requirements

In order to mitigate potential access and circulation impacts, the applicant may be required to make highway dedications and improvements. The applicant shall consult the Bureau of Engineering (BOE) for any highway dedication or street widening requirements. These requirements must be guaranteed before the issuance of any building permit through the B-permit process of the BOE. They must be constructed and completed prior to the issuance of any certificate of occupancy to the satisfaction of DOT and BOE.

3. Project Access and Circulation
The proposed site plan is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's West LA/Coastal Development Review Section (7166 W Manchester Ave, @ 213-485-1062). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project from public streets via any of the project driveways.

4. Worksite Traffic Control Requirements
DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

5. Development Review Fees
Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

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

Attachments

c: Trevor Martin, DCP
Jason Douglas, Council District No. 11
Ken Firoozmand, DOT
Kevin Azarmahan, BOE
Patrick Gibson, Gibson Transportation Consulting, Inc.

Attachment B

Table Excerpts from
July 2020 Transportation Study

TABLE 5
RELATED PROJECTS

No	Project [a]	Address	Description	Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Curtis School	15871 W Mulholland Drive	TDM program per conditional use permit	0	0	27	27	0	27	27
2.	Woodrise Mixed-Use	16130 Ventura Boulevard	51 apartment units with 19,400 sf retail and 1,063 sf office	1,477	10	34	44	90	50	140
3.	Hotel	15485 Ventura Boulevard	180-room hotel	932	36	25	61	35	33	68
4.	Tract 62077 Mixed-Use	15222 Ventura Boulevard	52 condominium units and 7,460 sf specialty retail	609	9	23	32	27	20	47
5.	Valley Beth Shalom Preschool	15739 Ventura Boulevard	Increase enrollment from 820 students to 1,079 students	1,000	72	63	135	48	53	101
6.	Bank	15821 Ventura Boulevard	6,115 sf bank	623	18	7	25	22	28	50
7.	Coffee Shop	15315 Dickens Street	10,000 sf coffee shop	1,300	60	60	120	70	50	120
8.	Convenience Store	15445 Ventura Boulevard	2,770 sf convenience store	721	38	40	78	26	22	48
9.	Mixed-Use	16206 Ventura Boulevard	12,880 sf mixed-use	726	34	38	72	28	19	47
10.	Apartment	16161 Ventura Boulevard	114 apartment units	758	12	46	58	46	25	71
11.	Recreational Park	2301 N Sepulveda Boulevard	Improvement to a 500-acre recreational park	1,083	6	3	9	26	17	43
12.	Apartments	4741 Libbit Avenue	46 apartment units	249	5	12	17	12	7	19
			Total:	9,478	300	378	678	430	351	781

Notes
sf: square feet
[a] Related projects information provided by LADOT, August 2019.

TABLE 7
PROJECT TRIP GENERATION ESTIMATES
MIRMAN SCHOOL

TRIP GENERATION RATES [a]											
Land Use	**ITE Land Use**	**Rate**	**A.M. Peak Hour**			**School P.M. Peak Hour** [b]			**Commuter P.M. Peak Hour** [c]		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Private School (K-8)	534	per student	55%	45%	0.91	47%	53%	0.62	46%	54%	0.26

TRIP GENERATION ESTIMATES											
Land Use	**ITE Land Use**	**Size**	**A.M. Peak Hour**			**School P.M. Peak Hour** [c]			**Commuter P.M. Peak Hour** [d]		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Existing Enrollment											
Private School (K-8)	534	330 students	(165)	(135)	(300)	(96)	(109)	(205)	(40)	(46)	(86)
Proposed Enrollment											
Private School (K-8)	534	430 students	215	176	391	125	142	267	52	60	112
NET NEW PROJECT TRIPS			**50**	**41**	**91**	**29**	**33**	**62**	**12**	**14**	**26**

Notes:

[a] Trip generation rates from *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.

[b] The School PM peak hour generally occurs between 3:00 and 4:00 PM due to the student dismissal schedule. This peak hour coincides with the PM peak hour of the generator (i.e., the school). Thus, for the school uses, the peak hour of generator trip generation rates were utilized to forecast the traffic volumes during the School PM peak hour.

[c] The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

TABLE 9
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue &	AM	0.446	A	0.446	A	0.000	NO
	US 101 Northbound Off-Ramp	School PM	0.279	A	0.279	A	0.000	NO
		PM	0.568	A	0.568	A	0.000	NO
* 2.	Hayvenhurst Avenue &	AM	0.816	D	0.818	D	0.002	NO
	Magnolia Boulevard/US 101 Southbound On-Ramp	School PM	0.398	A	0.398	A	0.000	NO
		PM	0.719	C	0.719	C	0.000	NO
* 3.	Hayvenhurst Avenue &	AM	0.903	E	0.905	E	0.002	NO
	Ventura Boulevard	School PM	0.672	B	0.675	B	0.003	NO
		PM	0.863	D	0.863	D	0.000	NO
4.	Sepulveda Boulevard &	AM	0.741	C	0.743	C	0.002	NO
	I-405 / US 101 Ramps / Greanleaf Street	School PM	0.828	D	0.829	D	0.001	NO
		PM	0.856	D	0.856	D	0.000	NO
5.	Sepulveda Boulevard &	AM	0.647	B	0.647	B	0.000	NO
	Fiume Walk	School PM	0.285	A	0.286	A	0.001	NO
		PM	0.438	A	0.438	A	0.000	NO
* 6.	Sepulveda Boulevard &	AM	0.718	C	0.720	C	0.002	NO
	Valley Vista Boulevard	School PM	0.498	A	0.499	A	0.001	NO
		PM	0.541	A	0.542	A	0.001	NO
11.	Walt Disney Drive &	AM	0.464	A	0.475	A	0.011	NO
	Mulholland Drive	School PM	0.499	A	0.515	A	0.016	NO
		PM	0.487	A	0.494	A	0.007	NO
12.	Skirball Center Drive &	AM	0.845	D	0.864	D	0.019	NO
	Mulholland Drive	School PM	0.560	A	0.571	A	0.011	NO
		PM	0.384	A	0.388	A	0.004	NO
* 13.	Skirball Center Drive &	AM	0.654	B	0.668	B	0.014	NO
	I-405 Northbound Ramps	School PM	0.483	A	0.492	A	0.009	NO
		PM	0.755	C	0.759	C	0.004	NO
14.	Sepulveda Boulevard &	AM	1.116	F	1.123	F	0.007	NO
	Skirball Center Drive	School PM	0.656	B	0.663	B	0.007	NO
		PM	0.863	D	0.865	D	0.002	NO
* 15.	Sepulveda Boulevard &	AM	1.095	F	1.098	F	0.003	NO
	I-405 Southbound Ramps	School PM	0.811	D	0.815	D	0.004	NO
		PM	1.035	F	1.037	F	0.002	NO
16.	Sepulveda Boulevard &	AM	0.929	E	0.932	E	0.003	NO
	Mountaingate Drive	School PM	0.439	A	0.441	A	0.002	NO
		PM	0.861	D	0.862	D	0.001	NO

Notes

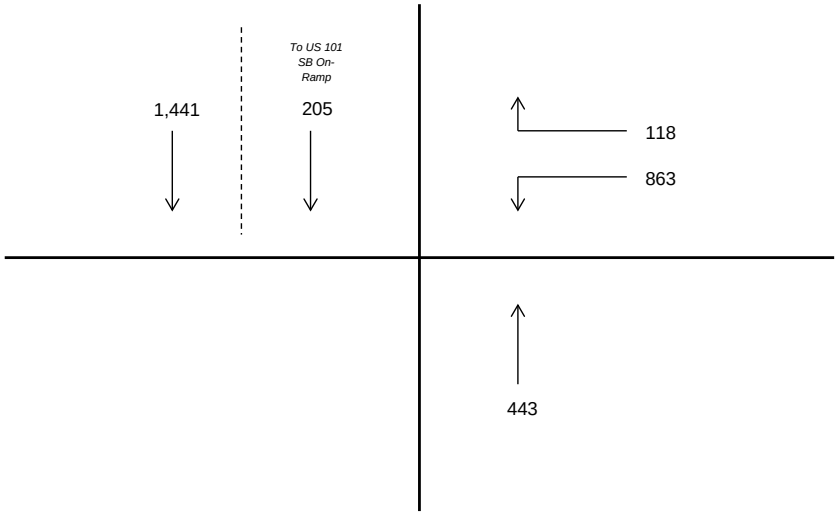
[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.

Attachment C

Level of Service Worksheets with March 2021 Related Projects List

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$\frac{443}{3} = 148$ *or*

Southbound through to Hayvenhurst Avenue

$\frac{1,441}{3} = 480$ *or*

Southbound through to US 101 Southbound On-Ramp

$\frac{205}{1} = 205$

Critical Volume = 480

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$\frac{863 + 118}{2} = 491$ *or*

Westbound right-turn

$\frac{118}{1} = 118$

Critical Volume = 118

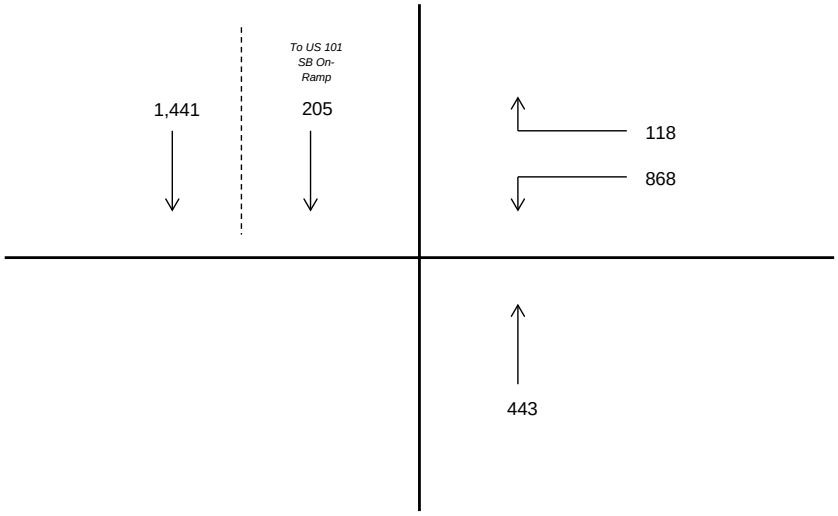
Critical Volume = 480 + 118 = 598

Intersection V/C = $\frac{598}{1,100} = 0.544$ *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.444 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$\frac{443}{3} = 148$ *or*

Southbound through to Hayvenhurst Avenue

$\frac{1,441}{3} = 480$ *or*

Southbound through to US 101 Southbound On-Ramp

$\frac{205}{1} = 205$

Critical Volume = 480

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$\frac{868 + 118}{2} = 493$ *or*

Westbound right-turn

$\frac{118}{1} = 118$

Critical Volume = 118

Critical Volume = 480 + 118 = 598

Intersection V/C = $\frac{598}{1,100} = 0.544$ *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.444 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			1200				#####				1200				1200				1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	28	1	**28**	0	28	**28**	0	28	1	**28**	0	28	1	**28**	0	28	1	**28**
	Left-Through		0							0				0				0	
	Through	270	2	135	0	270	135	22	292	2	146	0	292	2	146	0	292	2	146
	Through-Right		1							1				1				1	
	Right	154	0	154	3	157	157	2	156	0	156	3	159	0	159	0	159	0	159
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	193	1	193	0	193	193	0	193	1	193	0	193	1	193	0	193	1	193
	Left-Through		0							0				0				0	
	Through	1679	2	**714**	5	1684	**716**	31	1711	2	**725**	5	1716	2	**726**	0	1716	2	**726**
	Through-Right		1							1				1				1	
	Right	463	0	463	0	463	463	0	463	0	463	0	463	0	463	0	463	0	463
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	140	0	140	0	140	140	0	140	0	140	0	140	0	140	0	140	0	140
	Left-Through		1							1				1				1	
	Through	355	0	**344**	0	355	**344**	0	355	0	**344**	0	355	0	**344**	0	355	0	**344**
	Through-Right		1							1				1				1	
	Right	193	0	344	0	193	344	0	193	0	344	0	193	0	344	0	193	0	344
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		742	*North-South:*		744	*North-South:*			753	*North-South:*			754	*North-South:*			754
		East-West:		344	*East-West:*		344	*East-West:*			344	*East-West:*			344	*East-West:*			344
		SUM:		1086	*SUM:*		1088	*SUM:*			1097	*SUM:*			1098	*SUM:*			1098
VOLUME/CAPACITY *(V/C)* RATIO:				0.905			0.907				0.914				0.915				0.915
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.805**			**0.807**				**0.814**				**0.815**				**0.815**
LEVEL OF SERVICE (LOS):				**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	∆*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0 SB--	3	NB--	0 SB--	3	NB--	0 SB--	3	NB--	0 SB--	3	NB--	0 SB--	3	NB--	0 SB--	3
	EB--	0 WB--	3	EB--	0 WB--	3	EB--	0 WB--	3	EB--	0 WB--	3	EB--	0 WB--	3	EB--	0 WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	107	1	107	4	111	111	4	111	1	111	4	115	1	115	0	115	1	115
	Left-Through		0							0				0				0	
	Through	187	1	**118**	3	190	**120**	2	189	1	**133**	3	192	1	**134**	0	192	1	**134**
	Through-Right		1							1				1				1	
	Right	49	0	49	0	49	49	27	76	0	76	0	76	0	76	0	76	0	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	930	2	**512**	0	930	**512**	27	958	2	**527**	0	958	2	**527**	0	958	2	**527**
	Left-Through		0							0				0				0	
	Through	453	1	453	5	458	458	4	457	1	457	5	462	1	462	0	462	1	462
	Through-Right		0							0				0				0	
	Right	108	1	0	0	108	0	0	108	1	0	0	108	1	0	0	108	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	123	1	123	0	123	123	0	123	1	123	0	123	1	123	0	123	1	123
	Left-Through		0							0				0				0	
	Through	1787	2	**630**	0	1787	**633**	27	1815	2	**641**	0	1815	2	**643**	0	1815	2	**643**
	Through-Right		1							1				1				1	
	Right	103	0	103	8	111	111	4	107	0	107	8	115	0	115	0	115	0	115
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	37	1	**37**	0	37	**37**	22	59	1	**59**	0	59	1	**59**	0	59	1	**59**
	Left-Through		0							0				0				0	
	Through	458	3	153	0	458	153	23	481	3	160	0	481	3	160	0	481	3	160
	Through-Right		0							0				0				0	
	Right	104	2	0	0	104	0	22	126	2	0	0	126	2	0	0	126	2	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		630	North-South:		632	North-South:			660	North-South:			661	North-South:			661
		East-West:		667	East-West:		670	East-West:			700	East-West:			702	East-West:			702
		SUM:		1297	SUM:		1302	SUM:			1360	SUM:			1363	SUM:			1363
VOLUME/CAPACITY (V/C) RATIO:				0.943			0.947				0.989				0.991				0.991
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.843			0.847				0.889				0.891				0.891
LEVEL OF SERVICE (LOS):				D			D				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth (%):	1.00%	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			4			4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2				2				2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		3	NB-- 0 SB--		3	NB-- 0 SB--			3	NB-- 0 SB--			3	NB-- 0 SB--			3
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0
NORTHBOUND																		
Left	158	1	**158**	0	158	**158**	0	158	1	**158**	0	158	1	**158**	0	158	1	**158**
Left-Through		0							0				0				0	
Through	202	1	109	3	205	110	14	216	1	116	3	219	1	117	0	219	1	117
Through-Right		1							1				1				1	
Right	15	0	15	0	15	15	0	15	0	15	0	15	0	15	0	15	0	15
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	16	1	16	0	16	16	0	16	1	16	0	16	1	16	0	16	1	16
Left-Through		0							0				0				0	
Through	1371	2	**457**	4	1375	**458**	10	1382	2	**461**	4	1386	2	**462**	0	1386	2	**462**
Through-Right		1							1				1				1	
Right	174	1	0	0	174	0	0	174	1	0	0	174	1	0	0	174	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	560	1	**352**	0	560	**352**	12	572	1	**358**	0	572	1	**358**	0	572	1	**358**
Left-Through		0							0				0				0	
Through	51	0	352	0	51	352	0	51	0	358	0	51	0	358	0	51	0	358
Through-Right		0							0				0				0	
Right	92	0	0	0	92	0	0	92	0	0	0	92	0	0	0	92	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	112	1	112	0	112	112	0	112	1	112	0	112	1	112	0	112	1	112
Left-Through		0							0				0				0	
Through	170	0	**183**	0	170	**183**	0	170	0	**183**	0	170	0	**183**	0	170	0	**183**
Through-Right		1							1				1				1	
Right	13	0	0	0	13	0	0	13	0	0	0	13	0	0	0	13	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		615	*North-South:*		616	*North-South:*			619	*North-South:*			620	*North-South:*			620
	East-West:		535	*East-West:*		535	*East-West:*			541	*East-West:*			541	*East-West:*			541
	SUM:		1150	*SUM:*		1151	*SUM:*			1160	*SUM:*			1161	*SUM:*			1161
VOLUME/CAPACITY *(V/C)* RATIO:			0.836			0.837				0.844				0.844				0.844
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.736**			**0.737**				**0.744**				**0.744**				**0.744**
LEVEL OF SERVICE (LOS):			**C**			**C**				**C**				**C**				**C**

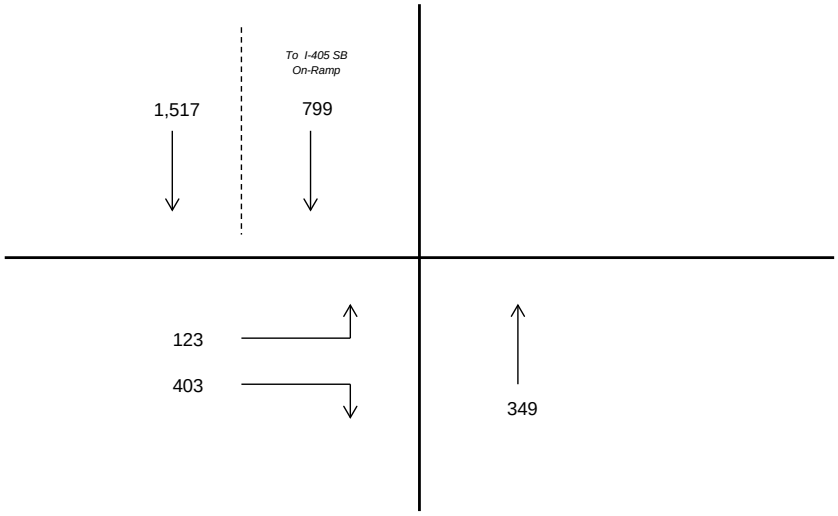
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{349}{3} = 116$ *or*

Southbound through to Sepulveda Boulevard

$\frac{1,517}{2} = 759$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{799}{1} = 799$

Critical Volume = 799

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{403 + 123}{2} = 263$ *or*

Eastbound left-turn

$\frac{123}{1} = 123$

Critical Volume = 263

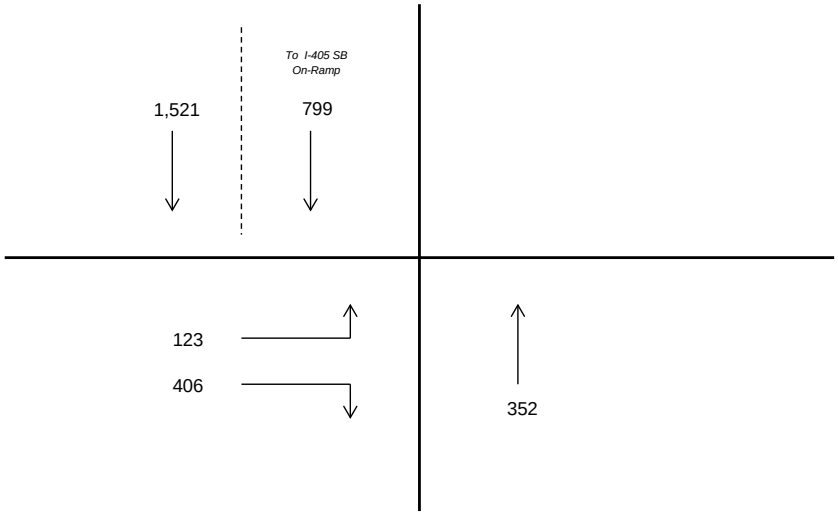
Critical Volume = 799 + 263 = 1,062

Intersection V/C = $\frac{1,062}{1,425} = 0.745$ *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.645 **Intersection LOS: B**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - AM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{352}{3} = 117$ *or*

Southbound through to Sepulveda Boulevard

$\frac{1,521}{2} = 761$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{799}{1} = 799$

Critical Volume = 799

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{406 + 123}{2} = 265$ *or*

Eastbound left-turn

$\frac{123}{1} = 123$

Critical Volume = 265

Critical Volume = 799 + 265 = 1,064

Intersection V/C = $\frac{1,064}{1,425}$ = 0.747 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.647 **Intersection LOS: B**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth (%):	1.00%	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB-- 1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			1100				#####				1100				1100				1100

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	286	1	228	3	289	230	14	300	1	235	3	303	1	237	0	303	1	237
	Through-Right		1							1				1				1	
	Right	170	0	170	0	170	170	0	170	0	170	0	170	0	170	0	170	0	170
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	72	1	72	0	72	72	0	72	1	72	0	72	1	72	0	72	1	72
	Left-Through		0							0				0				0	
	Through	1716	3	**572**	4	1720	**573**	10	1727	3	**576**	4	1731	3	**577**	0	1731	3	**577**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	9	0	0	0	9	0	0	9	0	0	0	9	0	0	0	9	0	0
	Left-Through		0							0				0				0	
	Through	5	0	**0**	0	5	**0**	0	5	0	**0**	0	5	0	**0**	0	5	0	**0**
	Through-Right		0							0				0				0	
	Right	9	0	0	0	9	0	0	9	0	0	0	9	0	0	0	9	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	644	1	**322**	0	644	**322**	0	644	1	**322**	0	644	1	**322**	0	644	1	**322**
	Left-Through		1							1				1				1	
	Through	0	0	322	0	0	322	0	0	0	322	0	0	0	322	0	0	0	322
	Through-Right		0							0				0				0	
	Right	73	1	0	0	73	0	0	73	1	0	0	73	1	0	0	73	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		572	North-South:		573	North-South:			576	North-South:			577	North-South:			577
		East-West:		322	East-West:		322	East-West:			322	East-West:			322	East-West:			322
		SUM:		894	SUM:		895	SUM:			898	SUM:			899	SUM:			899
VOLUME/CAPACITY (*V/C*) RATIO:				0.813			0.814				0.816				0.817				0.817
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.713**			**0.714**				**0.716**				**0.717**				**0.717**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth (%):	1.00%	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	169	2	**93**	0	169	**93**	0	169	2	**93**	0	169	2	**93**	0	169	2	**93**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	38	1	8	0	38	8	0	38	1	8	0	38	1	8	0	38	1	8
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	61	1	61	0	61	61	0	61	1	61	0	61	1	61	0	61	1	61
	Left-Through		0							0				0				0	
	Through	1408	2	**704**	34	1442	**721**	13	1422	2	**711**	34	1456	2	**728**	0	1456	2	**728**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	473	1	473	38	511	511	15	488	1	488	38	526	1	526	0	526	1	526
	Through-Right		0							0				0				0	
	Right	201	1	108	0	201	108	0	201	1	108	0	201	1	108	0	201	1	108
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		93	North-South:		93	North-South:			93	North-South:			93	North-South:			93
		East-West:		704	East-West:		721	East-West:			711	East-West:			728	East-West:			728
		SUM:		797	SUM:		814	SUM:			804	SUM:			821	SUM:			821
VOLUME/CAPACITY (V/C) RATIO:				0.559			0.571				0.564				0.576				0.576
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.459			0.471				0.464				0.476				0.476
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.012 — Δ*v/c* after mitigation: 0.012

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	
	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	EB--	3	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	369	2	**203**	29	398	**219**	4	373	2	**205**	29	402	2	**221**	0	402	2	**221**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	276	1	0	0	276	0	44	320	1	0	0	320	1	0	0	320	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	481	1	481	7	488	488	12	493	1	493	7	500	1	500	0	500	1	500
Through-Right		0							0				0				0	
Right	833	1	**630**	27	860	**641**	2	835	1	**630**	27	862	1	**641**	0	862	1	**641**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	505	1	**505**	0	505	**505**	42	547	1	**547**	0	547	1	**547**	0	547	1	**547**
Left-Through		0							0				0				0	
Through	305	2	153	9	314	157	12	317	2	159	9	326	2	163	0	326	2	163
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	North-South:		203	North-South:		219	North-South:			205	North-South:			221	North-South:			221
	East-West:		1135	East-West:		1146	East-West:			1177	East-West:			1188	East-West:			1188
	SUM:		1338	SUM:		1365	SUM:			1382	SUM:			1409	SUM:			1409
VOLUME/CAPACITY (*V/C*) RATIO:			0.939			0.958				0.970				0.989				0.989
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.839**			**0.858**				**0.870**				**0.889**				**0.889**
LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.019	Δ*v/c* after mitigation:	0.019
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1	NB--	0	SB--	1
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				1200				#####				1200				1200				1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	81	1	**81**	0	81	**81**	0	81	1	**81**	0	81	1	**81**	0	81	1	**81**
	Left-Through		0							0				0				0	
	Through	175	2	88	16	191	96	39	214	2	107	16	230	2	115	0	230	2	115
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	1106	2	**553**	21	1127	**564**	31	1138	2	**569**	21	1159	2	**580**	0	1159	2	**580**
	Through-Right		0							0				0				0	
	Right	211	1	0	5	216	0	13	224	1	0	5	229	1	0	0	229	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	478	2	**263**	13	491	**270**	8	486	2	**267**	13	499	2	**274**	0	499	2	**274**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	38	1	0	0	38	0	0	38	1	0	0	38	1	0	0	38	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	634		*North-South:*	645		*North-South:*		650		*North-South:*		661		*North-South:*		661
			East-West:	263		*East-West:*	270		*East-West:*		267		*East-West:*		274		*East-West:*		274
			SUM:	897		*SUM:*	915		*SUM:*		917		*SUM:*		935		*SUM:*		935
VOLUME/CAPACITY *(V/C)* RATIO:				0.748			0.763				0.764				0.779				0.779
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.648**			**0.663**				**0.664**				**0.679**				**0.679**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB-- 0	NB--	3	SB--	0
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	5	1	**5**	0	5	**5**	0	5	1	**5**	0	5	1	**5**	0	5	1	**5**
	Left-Through		0							0				0				0	
	Through	111	2	56	0	111	56	6	117	2	59	0	117	2	59	0	117	2	59
	Through-Right		0							0				0				0	
	Right	140	1	0	10	150	0	20	160	1	0	10	170	1	0	0	170	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	37	1	37	6	43	43	19	56	1	56	6	62	1	62	0	62	1	62
	Left-Through		0							0				0				0	
	Through	2296	1	**1149**	0	2296	**1149**	2	2299	1	**1151**	0	2299	1	**1151**	0	2299	1	**1151**
	Through-Right		1							1				1				1	
	Right	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
	Left-Through		1							1				1				1	
	Through	1	0	**3**	0	1	**3**	0	1	0	**3**	0	1	0	**3**	0	1	0	**3**
	Through-Right		0							0				0				0	
	Right	4	1	2	0	4	2	0	4	1	2	0	4	1	2	0	4	1	2
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	1003	1	**505**	18	1021	**514**	15	1019	1	**513**	18	1037	1	**522**	0	1037	1	**522**
	Left-Through		1							1				1				1	
	Through	7	0	505	0	7	514	0	7	0	513	0	7	0	522	0	7	0	522
	Through-Right		0							0				0				0	
	Right	54	1	17	3	57	14	15	69	1	13	3	72	1	10	0	72	1	10
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	1154		*North-South:*	1154		*North-South:*	1156			*North-South:*	1156			*North-South:*	1156	
			East-West:	508		*East-West:*	517		*East-West:*	516			*East-West:*	525			*East-West:*	525	
			SUM:	1662		*SUM:*	1671		*SUM:*	1672			*SUM:*	1681			*SUM:*	1681	
VOLUME/CAPACITY *(V/C)* RATIO:				1.209			1.215			1.216				1.223				1.223	
V/C LESS ATSAC/ATCS ADJUSTMENT:				1.109			1.115			1.116				1.123				1.123	
LEVEL OF SERVICE (LOS):				F			F			F				F				F	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 1	SB--	0	NB-- 1	SB--	0	NB-- 1	SB--	0	NB-- 1	SB--	0	NB-- 1	SB--	0	NB-- 1	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	236	2	118	10	246	123	14	250	2	125	10	260	2	130	0	260	2	130
	Through-Right		0							0				0				0	
	Right	5	1	0	0	5	0	0	5	1	0	0	5	1	0	0	5	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	694	2	382	10	704	387	8	702	2	386	10	712	2	392	0	712	2	392
	Left-Through		0							0				0				0	
	Through	2579	2	**1290**	8	2587	**1294**	10	2591	2	**1296**	8	2599	2	**1300**	0	2599	2	**1300**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	402	1	**402**	0	402	**402**	0	402	1	**402**	0	402	1	**402**	0	402	1	**402**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	65	1	0	0	65	0	12	77	1	0	0	77	1	0	0	77	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	1290		*North-South:*	1294		*North-South:*	1296			*North-South:*	1300			*North-South:*	1300	
		East-West:	402		*East-West:*	402		*East-West:*	402			*East-West:*	402			*East-West:*	402	
		SUM:	1692		*SUM:*	1696		*SUM:*	1698			*SUM:*	1702			*SUM:*	1702	
VOLUME/CAPACITY *(V/C)* RATIO:			1.187			1.190			1.192				1.194				1.194	
V/C LESS ATSAC/ATCS ADJUSTMENT:			1.087			1.090			1.092				1.094				1.094	
LEVEL OF SERVICE (LOS):			F			F			F				F				F	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	∆*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1.00%	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	AM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	73	1	**73**	0	73	**73**	0	73	1	**73**	0	73	1	**73**	0	73	1	**73**
	Left-Through		0							0				0				0	
	Through	192	2	96	10	202	101	14	206	2	103	10	216	2	108	0	216	2	108
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	2727	2	**1364**	8	2735	**1368**	10	2739	2	**1370**	8	2747	2	**1374**	0	2747	2	**1374**
	Through-Right		0							0				0				0	
	Right	59	1	49	0	59	49	0	59	1	49	0	59	1	49	0	59	1	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	38	2	**21**	0	38	**21**	0	38	2	**21**	0	38	2	**21**	0	38	2	**21**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	48	1	12	0	48	12	0	48	1	12	0	48	1	12	0	48	1	12
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		1437	*North-South:*		1441	*North-South:*			1443	*North-South:*			1447	*North-South:*			1447
		East-West:		21	*East-West:*		21	*East-West:*			21	*East-West:*			21	*East-West:*			21
		SUM:		1458	*SUM:*		1462	*SUM:*			1464	*SUM:*			1468	*SUM:*			1468
VOLUME/CAPACITY *(V/C)* RATIO:				1.023			1.026				1.027				1.030				1.030
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.923			0.926				0.927				0.930				0.930
LEVEL OF SERVICE (LOS):				E			E				E				E				E

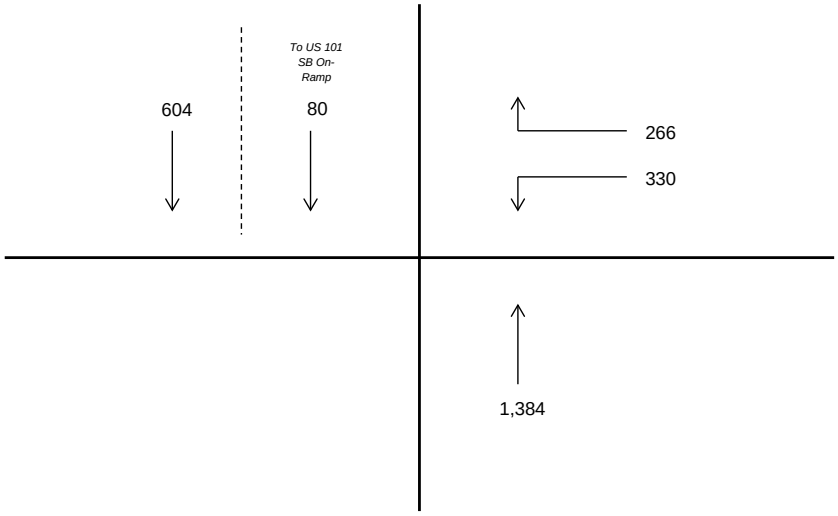
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$\frac{1,384}{3} = 461$ *or*

Southbound through to Hayvenhurst Avenue

$\frac{604}{3} = 201$ *or*

Southbound through to US 101 Southbound On-Ramp

$\frac{80}{1} = 80$

Critical Volume = 461

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$\frac{330 + 266}{2} = 298$ *or*

Westbound right-turn

$\frac{266}{1} = 266$

Critical Volume = 266

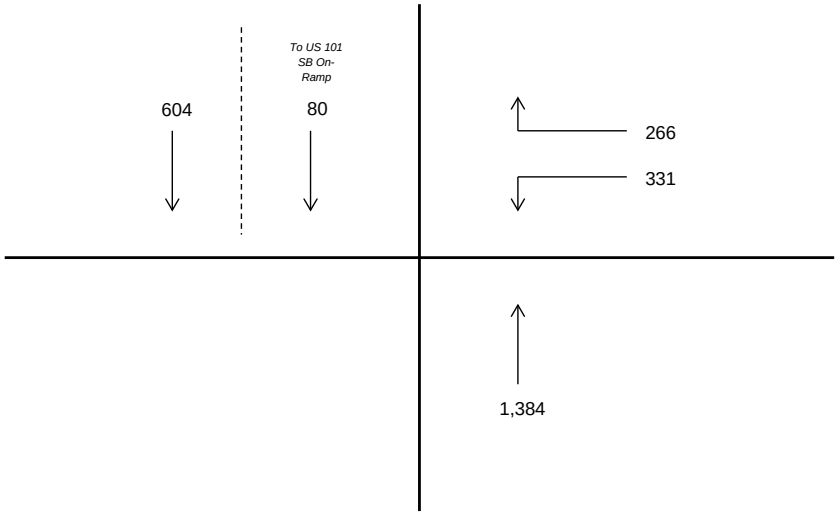
Critical Volume = 461 + 266 = 727

Intersection V/C = $\frac{727}{1,100}$ = 0.661 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.561 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$\frac{1,384}{3} = 461$ *or*

Southbound through to Hayvenhurst Avenue

$\frac{604}{3} = 201$ *or*

Southbound through to US 101 Southbound On-Ramp

$\frac{80}{1} = 80$

Critical Volume = 461

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$\frac{331 + 266}{2} = 299$ *or*

Westbound right-turn

$\frac{266}{1} = 266$

Critical Volume = 266

Critical Volume = 461 + 266 = 727

Intersection V/C = $\frac{727}{1,100}$ = 0.661 *(Override Capacity)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.561 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			0			0			0				0				0	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2 SB--		0	NB-- 2 SB--		0	NB-- 2 SB--		0		NB-- 2 SB--		0		NB-- 2 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			1200			#####			1200				1200				1200	
NORTHBOUND	Left	183	1	183	0	183	183	0	194	1	194	0	194	1	194	0	194	1	194
	Left-Through		0							0				0				0	
	Through	1046	2	**492**	0	1046	**492**	22	1132	2	**529**	0	1132	2	**530**	0	1132	2	**530**
	Through-Right		1							1				1				1	
	Right	430	0	430	1	431	431	0	456	0	456	1	457	0	457	0	457	0	457
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	75	1	**75**	0	75	**75**	0	80	1	**80**	0	80	1	**80**	0	80	1	**80**
	Left-Through		0							0				0				0	
	Through	591	2	288	1	592	288	21	648	2	312	1	649	2	313	0	649	2	313
	Through-Right		1							1				1				1	
	Right	272	0	272	0	272	272	0	289	0	289	0	289	0	289	0	289	0	289
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	237	0	237	0	237	237	0	252	0	252	0	252	0	252	0	252	0	252
	Left-Through		1							1				1				1	
	Through	367	0	**346**	0	367	**346**	0	390	0	**368**	0	390	0	**368**	0	390	0	**368**
	Through-Right		1							1				1				1	
	Right	88	0	346	0	88	346	0	93	0	368	0	93	0	368	0	93	0	368
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	567		*North-South:*	567		*North-South:*	609			*North-South:*	610			*North-South:*	610	
			East-West:	346		*East-West:*	346		*East-West:*	368			*East-West:*	368			*East-West:*	368	
			SUM:	913		*SUM:*	913		*SUM:*	977			*SUM:*	978			*SUM:*	978	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.761			0.761			0.814				0.815				0.815	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.661**			**0.661**			**0.714**				**0.715**				**0.715**	
	LEVEL OF SERVICE (LOS):			**B**			**B**			**C**				**C**				**C**	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0			0			0			0			0			0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3
	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2
Override Capacity			1200			#####			1200			1200			1200			1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	194	1	194	1	195	195	6	212	1	212	1	213	1	213	0	213	1	213
	Left-Through		0							0				0				0	
	Through	384	1	**225**	1	385	**226**	0	408	1	**250**	1	409	1	**250**	0	409	1	**250**
	Through-Right		1							1				1				1	
	Right	66	0	66	0	66	66	21	91	0	91	0	91	0	91	0	91	0	91
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	211	2	116	0	211	116	21	245	2	135	0	245	2	135	0	245	2	135
	Left-Through		0							0				0				0	
	Through	146	1	**146**	1	147	**147**	0	155	1	**155**	1	156	1	**156**	0	156	1	**156**
	Through-Right		0							0				0				0	
	Right	226	1	46	0	226	46	0	240	1	49	0	240	1	49	0	240	1	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	180	1	**180**	0	180	**180**	0	191	1	**191**	0	191	1	**191**	0	191	1	**191**
	Left-Through		0							0				0				0	
	Through	1022	2	373	0	1022	373	20	1105	2	404	0	1105	2	405	0	1105	2	405
	Through-Right		1							1				1				1	
	Right	96	0	96	2	98	98	5	107	0	107	2	109	0	109	0	109	0	109
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	48	1	48	0	48	48	22	73	1	73	0	73	1	73	0	73	1	73
	Left-Through		0							0				0				0	
	Through	1496	3	**499**	0	1496	**499**	19	1607	3	**536**	0	1607	3	**536**	0	1607	3	**536**
	Through-Right		0							0				0				0	
	Right	677	2	256	0	677	256	22	741	2	273	0	741	2	273	0	741	2	273
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		371	North-South:		373	North-South:			405	North-South:			406	North-South:			406
		East-West:		679	East-West:		679	East-West:			727	East-West:			727	East-West:			727
		SUM:		1050	SUM:		1052	SUM:			1132	SUM:			1133	SUM:			1133
VOLUME/CAPACITY (*V/C*) RATIO:				0.875			0.877				0.943				0.944				0.944
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.775**			**0.777**				**0.843**				**0.844**				**0.844**
LEVEL OF SERVICE (LOS):				C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB--	3
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	247	1	**247**	0	247	**247**	0	262	1	**262**	0	262	1	**262**	0	262	1	**262**
	Left-Through		0							0				0				0	
	Through	734	2	259	1	735	260	17	796	2	281	1	797	2	281	0	797	2	281
	Through-Right		1							1				1				1	
	Right	44	0	44	0	44	44	0	47	0	47	0	47	0	47	0	47	0	47
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22
	Left-Through		0							0				0				0	
	Through	486	2	**243**	1	487	**244**	17	533	2	**267**	1	534	2	**267**	0	534	2	**267**
	Through-Right		1							1				1				1	
	Right	676	1	76	0	676	76	0	718	1	76	0	718	1	76	0	718	1	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	479	1	**296**	0	479	**296**	10	518	1	**319**	0	518	1	**319**	0	518	1	**319**
	Left-Through		0							0				0				0	
	Through	69	0	296	0	69	296	0	73	0	319	0	73	0	319	0	73	0	319
	Through-Right		0							0				0				0	
	Right	44	0	0	0	44	0	0	47	0	0	0	47	0	0	0	47	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	30	1	30	0	30	30	0	32	1	32	0	32	1	32	0	32	1	32
	Left-Through		0							0				0				0	
	Through	428	0	**443**	0	428	**443**	0	454	0	**470**	0	454	0	**470**	0	454	0	**470**
	Through-Right		1							1				1				1	
	Right	15	0	0	0	15	0	0	16	0	0	0	16	0	0	0	16	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		490	*North-South:*		491	*North-South:*			529	*North-South:*			529	*North-South:*			529
		East-West:		739	*East-West:*		739	*East-West:*			789	*East-West:*			789	*East-West:*			789
		SUM:		1229	*SUM:*		1230	*SUM:*			1318	*SUM:*			1318	*SUM:*			1318
VOLUME/CAPACITY *(V/C)* RATIO:				0.894			0.895				0.959				0.959				0.959
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.794**			**0.795**				**0.859**				**0.859**				**0.859**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

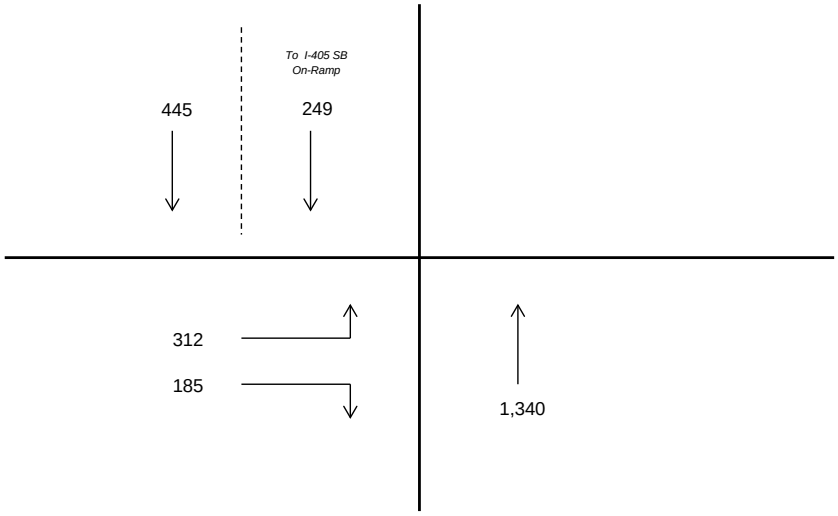
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{1,340}{3} = 447$ *or*

Southbound through to Sepulveda Boulevard

$\frac{445}{2} = 223$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{249}{1} = 249$

Critical Volume = 447

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{185 + 312}{2} = 249$ *or*

Eastbound left-turn

$\frac{312}{1} = 312$

Critical Volume = 312

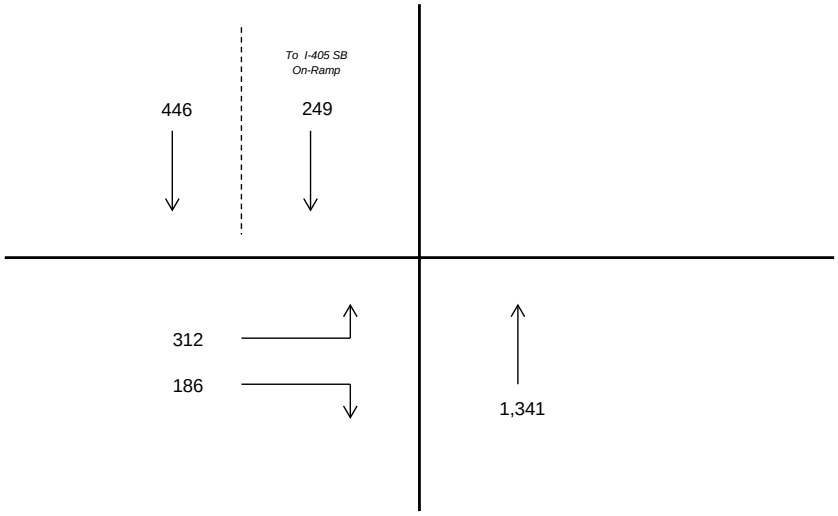
Critical Volume = 447 + 312 = 759

Intersection V/C = $\frac{759}{1,425} = 0.533$ *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.433 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - Commuter PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{1,341}{3} = 447$ *or*

Southbound through to Sepulveda Boulevard

$\frac{446}{2} = 223$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{249}{1} = 249$

Critical Volume = 447

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{186 + 312}{2} = 249$ *or*

Eastbound left-turn

$\frac{312}{1} = 312$

Critical Volume = 312

Critical Volume = 447 + 312 = 759

Intersection V/C = $\frac{759}{1,425} = 0.533$ *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.433 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB-- 1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			1200				#####				1200				1200				1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	907	2	**452**	1	908	**453**	17	980	2	**486**	1	981	2	**486**	0	981	2	**486**
	Through-Right		1							1				1				1	
	Right	450	0	450	0	450	450	0	478	0	478	0	478	0	478	0	478	0	478
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	68	1	**68**	0	68	**68**	0	72	1	**72**	0	72	1	**72**	0	72	1	**72**
	Left-Through		0							0				0				0	
	Through	526	2	263	1	527	264	17	575	2	288	1	576	2	288	0	576	2	288
	Through-Right		0							0				0				0	
	Right	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	5	0	0	0	5	0	0	5	0	0	0	5	0	0	0	5	0	0
	Left-Through		0							0				0				0	
	Through	2	0	**0**	0	2	**0**	0	2	0	**0**	0	2	0	**0**	0	2	0	**0**
	Through-Right		0							0				0				0	
	Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	395	1	**198**	0	395	**198**	0	419	1	**210**	0	419	1	**210**	0	419	1	**210**
	Left-Through		1							1				1				1	
	Through	0	0	198	0	0	198	0	0	0	210	0	0	0	210	0	0	0	210
	Through-Right		0							0				0				0	
	Right	224	1	0	0	224	0	0	238	1	0	0	238	1	0	0	238	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		520	North-South:		521	North-South:			558	North-South:			558	North-South:			558
		East-West:		198	East-West:		198	East-West:			210	East-West:			210	East-West:			210
		SUM:		718	SUM:		719	SUM:			768	SUM:			768	SUM:			768
VOLUME/CAPACITY (*V/C*) RATIO:				0.598			0.599				0.640				0.640				0.640
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.498			0.499				0.540				0.540				0.540
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	3	EB-- 0	WB--	3	EB-- 0	WB--	3		EB-- 0	WB--	3		EB-- 0	WB--	3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	132	2	**73**	0	132	**73**	0	140	2	**77**	0	140	2	**77**	0	140	2	**77**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	40	1	31	0	40	31	0	42	1	32	0	42	1	32	0	42	1	32
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	19	1	**19**	0	19	**19**	0	20	1	**20**	0	20	1	**20**	0	20	1	**20**
	Left-Through		0							0				0				0	
	Through	427	2	214	12	439	220	16	469	2	235	12	481	2	241	0	481	2	241
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	685	1	**685**	9	694	**694**	18	745	1	**745**	9	754	1	**754**	0	754	1	**754**
	Through-Right		0							0				0				0	
	Right	56	1	0	0	56	0	0	59	1	0	0	59	1	0	0	59	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		73	*North-South:*		73	*North-South:*			77	*North-South:*			77	*North-South:*			77
		East-West:		704	*East-West:*		713	*East-West:*			765	*East-West:*			774	*East-West:*			774
		SUM:		777	*SUM:*		786	*SUM:*			842	*SUM:*			851	*SUM:*			851
VOLUME/CAPACITY *(V/C)* RATIO:				0.545			0.552				0.591				0.597				0.597
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.445**			**0.452**				**0.491**				**0.497**				**0.497**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	∆*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	415	2	**228**	7	422	**232**	0	441	2	**243**	7	448	2	**246**	0	448	2	**246**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	332	1	36	0	332	36	57	409	1	28	0	409	1	28	0	409	1	28
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	118	1	**118**	3	121	**121**	16	141	1	**141**	3	144	1	**144**	0	144	1	**144**
Through-Right		0							0				0				0	
Right	185	1	0	9	194	0	0	196	1	0	9	205	1	0	0	205	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	296	1	**296**	0	296	**296**	67	381	1	**381**	0	381	1	**381**	0	381	1	**381**
Left-Through		0							0				0				0	
Through	354	2	177	2	356	178	18	394	2	197	2	396	2	198	0	396	2	198
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*	228	*North-South:*	232			*North-South:*	243			*North-South:*	246			*North-South:*	246		
	East-West:	414	*East-West:*	417			*East-West:*	522			*East-West:*	525			*East-West:*	525		
	SUM:	642	*SUM:*	649			*SUM:*	765			*SUM:*	771			*SUM:*	771		
VOLUME/CAPACITY *(V/C)* RATIO:		0.451		0.455				0.537				0.541				0.541		
V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.351**		**0.355**				**0.437**				**0.441**				**0.441**		
LEVEL OF SERVICE (LOS):		**A**		**A**				**A**				**A**				**A**		

	NB--	SB--	EB--	WB--
No. of Phases	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2
Override Capacity	0	0	0	0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	*Δv/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

	EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases				0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	*NB--*	0	*SB--*	1	*NB--*	0	*SB--*	1	*NB--*	0	*SB--*	1	*NB--*	0	*SB--*	1	*NB--*	0	*SB--*	1
	EB--	0	*WB--*	0	*EB--*	0	*WB--*	0	*EB--*	0	*WB--*	0	*EB--*	0	*WB--*	0	*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				1200				#####				1200				1200				1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	668	1	**668**	0	668	**668**	0	709	1	**709**	0	709	1	**709**	0	709	1	**709**
	Left-Through		0							0				0				0	
	Through	477	2	239	4	481	241	47	553	2	277	4	557	2	279	0	557	2	279
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	244	2	**122**	7	251	**126**	49	308	2	**154**	7	315	2	**158**	0	315	2	**158**
	Through-Right		0							0				0				0	
	Right	211	1	0	2	213	0	18	242	1	0	2	244	1	0	0	244	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	294	2	**162**	3	297	**163**	10	322	2	**177**	3	325	2	**179**	0	325	2	**179**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	70	1	0	0	70	0	0	74	1	0	0	74	1	0	0	74	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	790		*North-South:*	794			*North-South:*	863			*North-South:*	867			*North-South:*	867
			East-West:	162		*East-West:*	163			*East-West:*	177			*East-West:*	179			*East-West:*	179
			SUM:	952		*SUM:*	957			*SUM:*	1040			*SUM:*	1046			*SUM:*	1046
VOLUME/CAPACITY *(V/C)* RATIO:				0.793			0.798				0.867				0.872				0.872
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.693			0.698				0.767				0.772				0.772
LEVEL OF SERVICE (LOS):				B			B				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	Δ*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	5	1	5	0	5	5	0	5	1	5	0	5	1	5	0	5	1	5
	Left-Through		0							0				0				0	
	Through	1565	2	783	0	1565	783	5	1666	2	833	0	1666	2	833	0	1666	2	833
	Through-Right		0							0				0				0	
	Right	1165	1	**1051**	2	1167	**1050**	26	1263	1	**1130**	2	1265	1	**1129**	0	1265	1	**1129**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	46	1	**46**	1	47	**47**	21	70	1	**70**	1	71	1	**71**	0	71	1	**71**
	Left-Through		0							0				0				0	
	Through	219	1	110	0	219	110	7	239	1	120	0	239	1	120	0	239	1	120
	Through-Right		1							1				1				1	
	Right	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	10	0	10	0	10	10	0	11	0	11	0	11	0	11	0	11	0	11
	Left-Through		1							1				1				1	
	Through	11	0	**21**	0	11	**21**	0	12	0	**23**	0	12	0	**23**	0	12	0	**23**
	Through-Right		0							0				0				0	
	Right	11	1	9	0	11	9	0	12	1	10	0	12	1	10	0	12	1	10
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	225	1	**114**	6	231	**117**	25	264	1	**133**	6	270	1	**136**	0	270	1	**136**
	Left-Through		1							1				1				1	
	Through	2	0	114	0	2	117	0	2	0	133	0	2	0	136	0	2	0	136
	Through-Right		0							0				0				0	
	Right	101	1	55	1	102	55	25	132	1	62	1	133	1	62	0	133	1	62
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	1097		*North-South:*	1097		*North-South:*		1200		*North-South:*		1200		*North-South:*		1200
			East-West:	135		*East-West:*	138		*East-West:*		156		*East-West:*		159		*East-West:*		159
			SUM:	1232		*SUM:*	1235		*SUM:*		1356		*SUM:*		1359		*SUM:*		1359
VOLUME/CAPACITY *(V/C)* RATIO:				0.896			0.898				0.986				0.988				0.988
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.796**			**0.798**				**0.886**				**0.888**				**0.888**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4				4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB--	0	NB--	1	SB--	0	NB--	1	SB--	0	NB--	1	SB--	0	NB--	1	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	2574	2	**1287**	2	2576	**1288**	16	2748	2	**1374**	2	2750	2	**1375**	0	2750	2	**1375**
	Through-Right		0							0				0				0	
	Right	8	1	0	0	8	0	0	8	1	0	0	8	1	0	0	8	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	198	2	**109**	4	202	**111**	12	222	2	**122**	4	226	2	**124**	0	226	2	**124**
	Left-Through		0							0				0				0	
	Through	276	2	138	3	279	140	19	312	2	156	3	315	2	158	0	315	2	158
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	48	1	**48**	0	48	**48**	0	51	1	51	0	51	1	51	0	51	1	51
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	97	1	43	0	97	42	16	119	1	**58**	0	119	1	**57**	0	119	1	**57**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	1396		*North-South:*	1399		*North-South:*		1496		*North-South:*		1499		*North-South:*		1499
			East-West:	48		*East-West:*	48		*East-West:*		58		*East-West:*		57		*East-West:*		57
			SUM:	1444		*SUM:*	1447		*SUM:*		1554		*SUM:*		1556		*SUM:*		1556
VOLUME/CAPACITY *(V/C)* RATIO:				1.050			1.052				1.130				1.132				1.132
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.950			0.952				1.030				1.032				1.032
LEVEL OF SERVICE (LOS):				E			E				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	60	1	60	0	60	60	0	64	1	64	0	64	1	64	0	64	1	64
	Left-Through		0							0				0				0	
	Through	2489	2	**1245**	2	2491	**1246**	16	2658	2	**1329**	2	2660	2	**1330**	0	2660	2	**1330**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	334	2	167	3	337	169	19	374	2	187	3	377	2	189	0	377	2	189
	Through-Right		0							0				0				0	
	Right	50	1	34	0	50	34	0	53	1	36	0	53	1	36	0	53	1	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	60	2	**33**	0	60	**33**	0	64	2	**35**	0	64	2	**35**	0	64	2	**35**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	41	1	11	0	41	11	0	44	1	12	0	44	1	12	0	44	1	12
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		1245	*North-South:*		1246	*North-South:*			1329	*North-South:*			1330	*North-South:*			1330
		East-West:		33	*East-West:*		33	*East-West:*			35	*East-West:*			35	*East-West:*			35
		SUM:		1278	*SUM:*		1279	*SUM:*			1364	*SUM:*			1365	*SUM:*			1365
VOLUME/CAPACITY *(V/C)* RATIO:				0.897			0.898				0.957				0.958				0.958
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.797**			**0.798**				**0.857**				**0.858**				**0.858**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

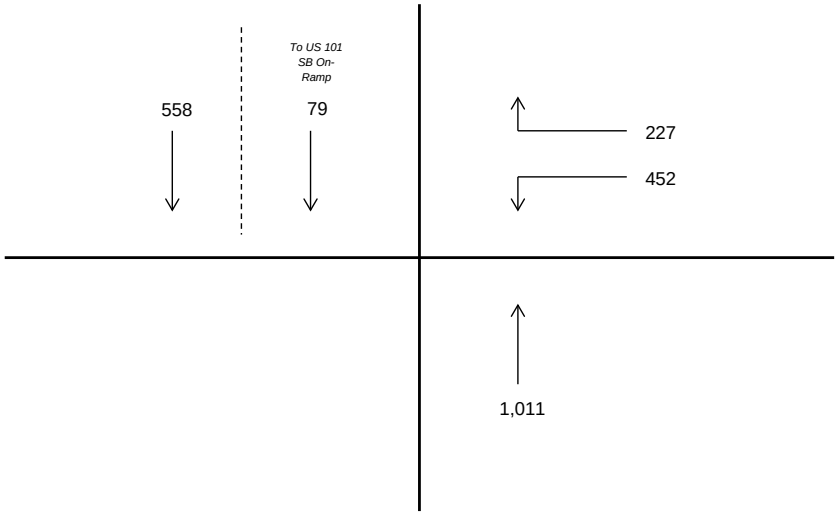
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	∆*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future without Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$$\frac{1{,}011}{3} = 337 \quad \underline{or}$$

Southbound through to Hayvenhurst Avenue

$$\frac{558}{3} = 186 \quad \underline{or}$$

Southbound through to US 101 Southbound On-Ramp

$$\frac{79}{1} = 79$$

Critical Volume = 337

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$$\frac{452 + 227}{2} = 340 \quad \underline{or}$$

Westbound right-turn

$$\frac{227}{1} = 227$$

Critical Volume = 227

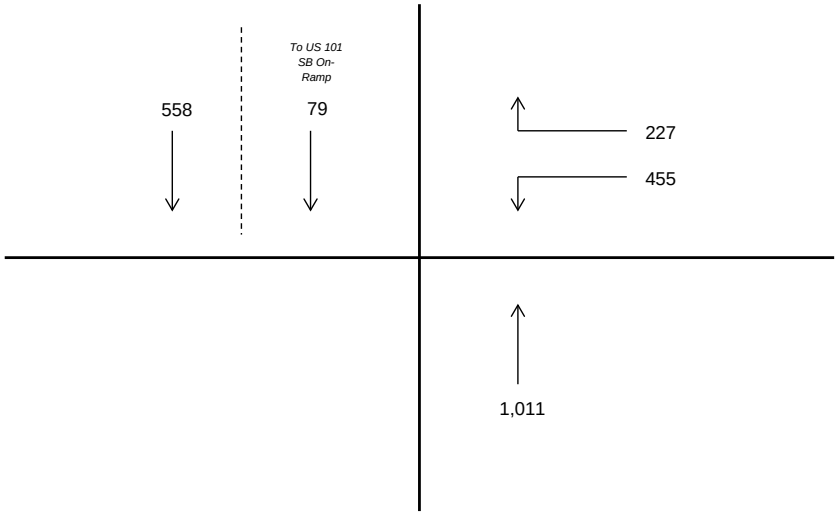
Critical Volume = 337 + 227 = 564

Intersection V/C = $\frac{564}{1{,}500}$ = 0.376 *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.276 **Intersection LOS: A**

Intersection #1 - Hayvenhurst Avenue & US 101 Northbound Off-Ramp
Future with Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Hayvenhurst Avenue

Number of lanes:
- 3 northbound through lanes
- 3 southbound through lanes to Hayvenhurst Avenue
- 1 southbound through lane to US 101 Southbound On-Ramp

Northbound through

$\frac{1,011}{3} = 337$ *or*

Southbound through to Hayvenhurst Avenue

$\frac{558}{3} = 186$ *or*

Southbound through to US 101 Southbound On-Ramp

$\frac{79}{1} = 79$

Critical Volume = 337

2) Critical volume calculation for westbound on US 101 Northbound Off-Ramp

Number of lanes:
- 1 westbound left-turn lane
- 1 westbound shared left-turn/right-turn lane

Westbound left-turn + right-turn

$\frac{455 + 227}{2} = 341$ *or*

Westbound right-turn

$\frac{227}{1} = 227$

Critical Volume = 227

Critical Volume = 337 + 227 = 564

Intersection V/C = $\frac{564}{1,500} = 0.376$ *(2-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.276 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	Magnolia Blvd/US 101 SB On-Ramp	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB-- 0	NB--	2	SB--	0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	109	1	109	0	109	109	0	116	1	116	0	116	1	116	0	116	1	116
	Left-Through		0							0				0				0	
	Through	806	2	**388**	0	806	**388**	22	878	2	**419**	0	878	2	**420**	0	878	2	**420**
	Through-Right		1							1				1				1	
	Right	357	0	357	2	359	359	0	379	0	379	2	381	0	381	0	381	0	381
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	74	1	**74**	0	74	**74**	0	79	1	**79**	0	79	1	**79**	0	79	1	**79**
	Left-Through		0							0				0				0	
	Through	689	2	317	3	692	318	21	752	2	344	3	755	2	345	0	755	2	345
	Through-Right		1							1				1				1	
	Right	263	0	263	0	263	263	0	279	0	279	0	279	0	279	0	279	0	279
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	141	0	141	0	141	141	0	150	0	150	0	150	0	150	0	150	0	150
	Left-Through		1							1				1				1	
	Through	235	0	**229**	0	235	**229**	0	249	0	**243**	0	249	0	**243**	0	249	0	**243**
	Through-Right		1							1				1				1	
	Right	82	0	229	0	82	229	0	87	0	243	0	87	0	243	0	87	0	243
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		462	*North-South:*		462	*North-South:*			498	*North-South:*			499	*North-South:*			499
		East-West:		229	*East-West:*		229	*East-West:*			243	*East-West:*			243	*East-West:*			243
		SUM:		691	*SUM:*		691	*SUM:*			741	*SUM:*			742	*SUM:*			742
VOLUME/CAPACITY *(V/C)* RATIO:				0.461			0.461				0.494				0.495				0.495
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.361**			**0.361**				**0.394**				**0.395**				**0.395**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hayvenhurst Ave	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Ventura Blvd	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB--	3
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	183	1	183	3	186	186	6	200	1	200	3	203	1	203	0	203	1	203
	Left-Through		0							0				0				0	
	Through	342	1	**197**	2	344	**198**	0	363	1	**219**	2	365	1	**220**	0	365	1	**220**
	Through-Right		1							1				1				1	
	Right	51	0	51	0	51	51	21	75	0	75	0	75	0	75	0	75	0	75
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	221	2	122	0	221	122	21	256	2	141	0	256	2	141	0	256	2	141
	Left-Through		0							0				0				0	
	Through	144	1	**144**	3	147	**147**	0	153	1	**153**	3	156	1	**156**	0	156	1	**156**
	Through-Right		0							0				0				0	
	Right	224	1	26	0	224	26	0	238	1	28	0	238	1	28	0	238	1	28
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	198	1	**198**	0	198	**198**	0	210	1	**210**	0	210	1	**210**	0	210	1	**210**
	Left-Through		0							0				0				0	
	Through	913	2	343	0	913	344	20	989	2	372	0	989	2	373	0	989	2	373
	Through-Right		1							1				1				1	
	Right	115	0	115	4	119	119	5	127	0	127	4	131	0	131	0	131	0	131
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	51	1	51	0	51	51	22	76	1	76	0	76	1	76	0	76	1	76
	Left-Through		0							0				0				0	
	Through	1274	3	**425**	0	1274	**425**	19	1371	3	**457**	0	1371	3	**457**	0	1371	3	**457**
	Through-Right		0							0				0				0	
	Right	492	2	149	0	492	149	22	544	2	158	0	544	2	158	0	544	2	158
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		341	North-South:		345	North-South:			372	North-South:			376	North-South:			376
		East-West:		623	East-West:		623	East-West:			667	East-West:			667	East-West:			667
		SUM:		964	SUM:		968	SUM:			1039	SUM:			1043	SUM:			1043
VOLUME/CAPACITY (V/C) RATIO:				0.701			0.704				0.756				0.759				0.759
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.601**			**0.604**				**0.656**				**0.659**				**0.659**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	I-405/US 101 Ramps/Greenleaf St	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--	3
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2
Override Capacity			0			0			0			0			0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	269	1	**269**	0	269	**269**	0	286	1	**286**	0	286	1	**286**	0	286	1	**286**
	Left-Through		0							0				0				0	
	Through	640	1	336	2	642	337	17	696	1	365	2	698	1	366	0	698	1	366
	Through-Right		1							1				1				1	
	Right	31	0	31	0	31	31	0	33	0	33	0	33	0	33	0	33	0	33
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	17	1	17	0	17	17	0	18	1	18	0	18	1	18	0	18	1	18
	Left-Through		0							0				0				0	
	Through	454	2	**227**	2	456	**228**	17	499	2	**245**	2	501	2	**246**	0	501	2	**246**
	Through-Right		1							1				1				1	
	Right	454	1	0	0	454	0	0	482	1	0	0	482	1	0	0	482	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	569	1	**334**	0	569	**334**	10	614	1	**360**	0	614	1	**360**	0	614	1	**360**
	Left-Through		0							0				0				0	
	Through	61	0	334	0	61	334	0	65	0	360	0	65	0	360	0	65	0	360
	Through-Right		0							0				0				0	
	Right	38	0	0	0	38	0	0	40	0	0	0	40	0	0	0	40	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	45	1	45	0	45	45	0	48	1	48	0	48	1	48	0	48	1	48
	Left-Through		0							0				0				0	
	Through	337	0	**365**	0	337	**365**	0	358	0	**388**	0	358	0	**388**	0	358	0	**388**
	Through-Right		1							1				1				1	
	Right	28	0	0	0	28	0	0	30	0	0	0	30	0	0	0	30	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		496	*North-South:*		497	*North-South:*			531	*North-South:*			532	*North-South:*			532
		East-West:		699	*East-West:*		699	*East-West:*			748	*East-West:*			748	*East-West:*			748
		SUM:		1195	*SUM:*		1196	*SUM:*			1279	*SUM:*			1280	*SUM:*			1280
VOLUME/CAPACITY *(V/C)* RATIO:				0.869			0.870				0.930				0.931				0.931
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.769			0.770				0.830				0.831				0.831
LEVEL OF SERVICE (LOS):				C			C				D				D				D

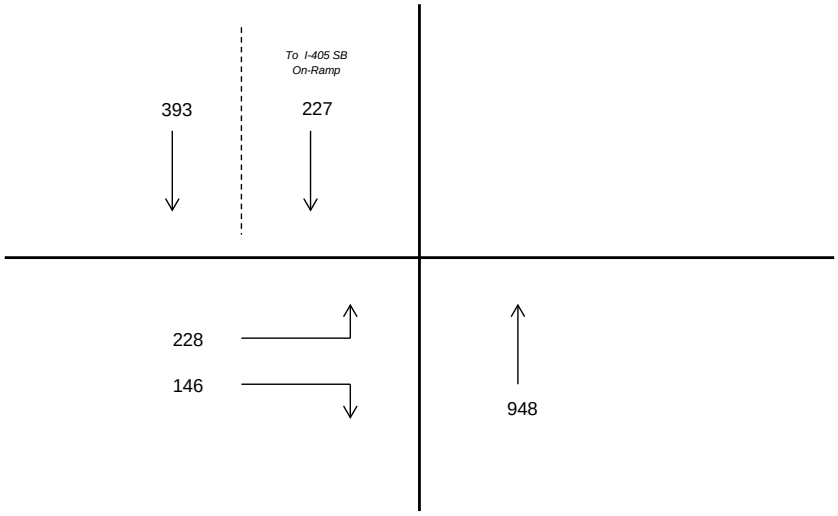
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	$\Delta v/c$ after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future with Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{948}{3} = 316$ *or*

Southbound through to Sepulveda Boulevard

$\frac{393}{2} = 197$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{227}{1} = 227$

Critical Volume = 316

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{146 + 228}{2} = 187$ *or*

Eastbound left-turn

$\frac{228}{1} = 228$

Critical Volume = 228

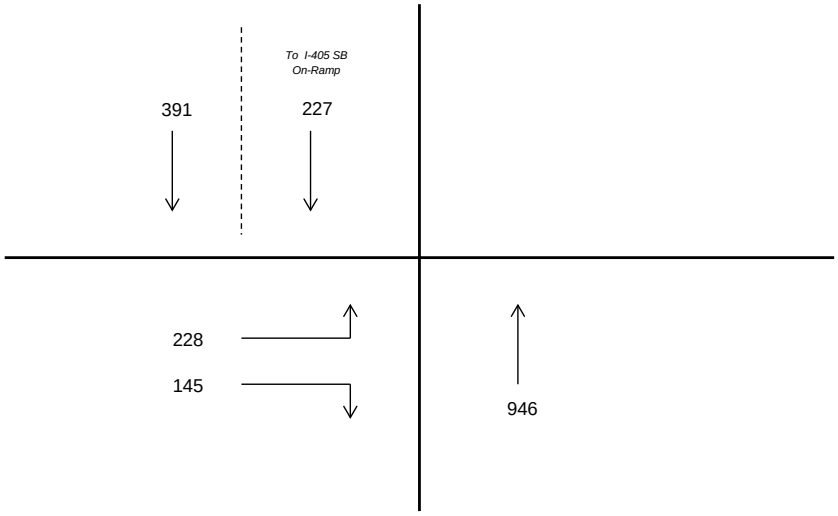
Critical Volume = 316 + 228 = 544

Intersection V/C = $\frac{544}{1{,}425}$ = 0.382 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.282 **Intersection LOS: A**

Intersection #5 - Sepulveda Boulevard & Fiume Walk
Future without Project Conditions (Year 2025) - School PM Peak Hour



1) Critical volume calculation for northbound and southbound on Sepulveda Boulevard

Number of lanes:
- 3 northbound through lanes
- 2 southbound through lanes to Sepulveda Bouelvard
- 1 southbound through lane to I-405 Southbound On-Ramp

Northbound through

$\frac{946}{3} = 315$ *or*

Southbound through to Sepulveda Boulevard

$\frac{391}{2} = 196$ *or*

Southbound through to I-405 Southbound On-Ramp

$\frac{227}{1} = 227$

Critical Volume = 315

2) Critical volume calculation for eastbound on Fiume Walk

Number of lanes:
- 1 eastbound shared left-turn/right-turn lane
- 1 eastbound right-turn lane

Eastbound left-turn + right-turn

$\frac{145 + 228}{2} = 187$ *or*

Eastbound left-turn

$\frac{228}{1} = 228$

Critical Volume = 228

Critical Volume = 315 + 228 = 543

Intersection V/C = $\frac{543}{1{,}425}$ = 0.381 *(3-Phase)*

ATSAC + ATCS Credit = (0.100)

Final Intersection V/C = 0.281 **Intersection LOS: A**

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Valley Vista Boulevard	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1	EB--	0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	792	1	**561**	2	794	**562**	17	858	1	**604**	2	860	1	**605**	0	860	1	**605**
	Through-Right		1							1				1				1	
	Right	330	0	330	0	330	330	0	350	0	350	0	350	0	350	0	350	0	350
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	83	1	**83**	0	83	**83**	0	88	1	**88**	0	88	1	**88**	0	88	1	**88**
	Left-Through		0							0				0				0	
	Through	491	3	164	2	493	164	17	538	3	179	2	540	3	180	0	540	3	180
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	6	0	0	0	6	0	0	6	0	0	0	6	0	0	0	6	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	298	1	**149**	0	298	**149**	0	316	1	**158**	0	316	1	**158**	0	316	1	**158**
	Left-Through		1							1				1				1	
	Through	0	0	149	0	0	149	0	0	0	158	0	0	0	158	0	0	0	158
	Through-Right		0							0				0				0	
	Right	243	1	0	0	243	0	0	258	1	0	0	258	1	0	0	258	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	644		*North-South:*	645		*North-South:*		692		*North-South:*		693		*North-South:*		693
			East-West:	149		*East-West:*	149		*East-West:*		158		*East-West:*		158		*East-West:*		158
			SUM:	793		*SUM:*	794		*SUM:*		850		*SUM:*		851		*SUM:*		851
VOLUME/CAPACITY *(V/C)* RATIO:				0.556			0.557				0.596				0.597				0.597
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.456**			**0.457**				**0.496**				**0.497**				**0.497**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	$\Delta v/c$ after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Walt Disney Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB-- 3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	107	2	**59**	0	107	**59**	0	114	2	**63**	0	114	2	**63**	0	114	2	**63**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	28	1	20	0	28	20	0	30	1	22	0	30	1	22	0	30	1	22
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	16	1	**16**	0	16	**16**	0	17	1	**17**	0	17	1	**17**	0	17	1	**17**
	Left-Through		0							0				0				0	
	Through	420	2	210	27	447	224	16	462	2	231	27	489	2	245	0	489	2	245
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	718	1	**718**	22	740	**740**	18	780	1	**780**	22	802	1	**802**	0	802	1	**802**
	Through-Right		0							0				0				0	
	Right	65	1	6	0	65	6	0	69	1	6	0	69	1	6	0	69	1	6
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		59	North-South:		59	North-South:			63	North-South:			63	North-South:			63
		East-West:		734	East-West:		756	East-West:			797	East-West:			819	East-West:			819
		SUM:		793	SUM:		815	SUM:			860	SUM:			882	SUM:			882
VOLUME/CAPACITY (V/C) RATIO:				0.556			0.572				0.604				0.619				0.619
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.456			0.472				0.504				0.519				0.519
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Mulholland Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3 SB--		0	NB-- 3 SB--		0	NB-- 3 SB--		0		NB-- 3 SB--		0		NB-- 3 SB--		0	
		EB-- 3 WB--		0	EB-- 3 WB--		0	EB-- 3 WB--		0		EB-- 3 WB--		0		EB-- 3 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	361	2	**199**	17	378	**208**	0	383	2	**211**	17	400	2	**220**	0	400	2	**220**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	559	1	150	0	559	150	57	650	1	149	0	650	1	149	0	650	1	149
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	271	1	**271**	6	277	**277**	16	304	1	**304**	6	310	1	**310**	0	310	1	**310**
	Through-Right		0							0				0				0	
	Right	377	1	178	21	398	190	0	400	1	189	21	421	1	201	0	421	1	201
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	409	1	**409**	0	409	**409**	67	501	1	**501**	0	501	1	**501**	0	501	1	**501**
	Left-Through		0							0				0				0	
	Through	324	2	162	5	329	165	18	362	2	181	5	367	2	184	0	367	2	184
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		199	*North-South:*		208	*North-South:*			211	*North-South:*			220	*North-South:*			220
		East-West:		680	*East-West:*		686	*East-West:*			805	*East-West:*			811	*East-West:*			811
		SUM:		879	*SUM:*		894	*SUM:*			1016	*SUM:*			1031	*SUM:*			1031
	VOLUME/CAPACITY *(V/C)* RATIO:			0.617			0.627				0.713				0.724				0.724
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.517			0.527				0.613				0.624				0.624
	LEVEL OF SERVICE (LOS):			A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.011 — *Δv/c* after mitigation: 0.011

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Skirball Center Dr	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
13	East-West Street:	I-405 NB Ramps	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	NB--	0	SB-- 1	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	369	1	**369**	0	369	**369**	0	392	1	**392**	0	392	1	**392**	0	392	1	**392**
	Left-Through		0							0				0				0	
	Through	609	2	305	9	618	309	47	693	2	347	9	702	2	351	0	702	2	351
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	480	2	**240**	17	497	**249**	49	559	2	**280**	17	576	2	**288**	0	576	2	**288**
	Through-Right		0							0				0				0	
	Right	311	1	0	4	315	0	18	348	1	0	4	352	1	0	0	352	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	288	2	**158**	7	295	**162**	10	316	2	**174**	7	323	2	**178**	0	323	2	**178**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	69	1	0	0	69	0	0	73	1	0	0	73	1	0	0	73	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	609		*North-South:*	618		*North-South:*		672		*North-South:*		680		*North-South:*		680
			East-West:	158		*East-West:*	162		*East-West:*		174		*East-West:*		178		*East-West:*		178
			SUM:	767		*SUM:*	780		*SUM:*		846		*SUM:*		858		*SUM:*		858
VOLUME/CAPACITY *(V/C)* RATIO:				0.538			0.547				0.594				0.602				0.602
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.438**			**0.447**				**0.494**				**0.502**				**0.502**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.008	Δ*v/c* after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
14	East-West Street:	Skirball Center Dr	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	
	EB-- 0	WB--	3	EB-- 0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	EB--	0	WB--	3	
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2	
Override Capacity			0			0				0				0				0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	34	1	34	0	34	34	0	36	1	36	0	36	1	36	0	36	1	36
	Left-Through		0							0				0				0	
	Through	1125	2	563	0	1125	563	5	1199	2	600	0	1199	2	600	0	1199	2	600
	Through-Right		0							0				0				0	
	Right	912	1	**682**	6	918	**680**	26	994	1	**737**	6	1000	1	**736**	0	1000	1	**736**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	37	1	**37**	4	41	**41**	21	60	1	**60**	4	64	1	**64**	0	64	1	**64**
	Left-Through		0							0				0				0	
	Through	256	1	132	0	256	132	7	279	1	144	0	279	1	144	0	279	1	144
	Through-Right		1							1				1				1	
	Right	8	0	8	0	8	8	0	8	0	8	0	8	0	8	0	8	0	8
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	7	0	7	0	7	7	0	7	0	7	0	7	0	7	0	7	0	7
	Left-Through		1							1				1				1	
	Through	9	0	**16**	0	9	**16**	0	10	0	**17**	0	10	0	**17**	0	10	0	**17**
	Through-Right		0							0				0				0	
	Right	11	1	0	0	11	0	0	12	1	0	0	12	1	0	0	12	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	452	1	**230**	15	467	**238**	25	505	1	**257**	15	520	1	**264**	0	520	1	**264**
	Left-Through		1							1				1				1	
	Through	8	0	230	0	8	238	0	8	0	257	0	8	0	264	0	8	0	264
	Through-Right		0							0				0				0	
	Right	106	1	69	2	108	67	25	138	1	78	2	140	1	76	0	140	1	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		719	*North-South:*		721	*North-South:*			797	*North-South:*			800	*North-South:*			800
		East-West:		246	*East-West:*		254	*East-West:*			274	*East-West:*			281	*East-West:*			281
		SUM:		965	*SUM:*		975	*SUM:*			1071	*SUM:*			1081	*SUM:*			1081
VOLUME/CAPACITY *(V/C)* RATIO:				0.702			0.709				0.779				0.786				0.786
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.602**			**0.609**				**0.679**				**0.686**				**0.686**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	*Δv/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
15	East-West Street:	I-405 SB Ramps	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	1854	2	**927**	6	1860	**930**	16	1984	2	**992**	6	1990	2	**995**	0	1990	2	**995**
	Through-Right		0							0				0				0	
	Right	9	1	0	0	9	0	0	10	1	0	0	10	1	0	0	10	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	318	2	**175**	8	326	**179**	12	350	2	**193**	8	358	2	**197**	0	358	2	**197**
	Left-Through		0							0				0				0	
	Through	409	2	205	7	416	208	19	453	2	227	7	460	2	230	0	460	2	230
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	82	1	82	0	82	82	0	87	1	87	0	87	1	87	0	87	1	87
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	195	1	**108**	0	195	**106**	16	223	1	**127**	0	223	1	**125**	0	223	1	**125**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		1102	North-South:		1109	North-South:			1185	North-South:			1192	North-South:			1192
		East-West:		108	East-West:		106	East-West:			127	East-West:			125	East-West:			125
		SUM:		1210	SUM:		1215	SUM:			1312	SUM:			1317	SUM:			1317
VOLUME/CAPACITY (V/C) RATIO:				0.849			0.853				0.921				0.924				0.924
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.749			0.753				0.821				0.824				0.824
LEVEL OF SERVICE (LOS):				C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Blvd	Year of Count:	2019	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
16	East-West Street:	Mountaingate Avenue	Projection Year:	2025	Peak Hour:	S. PM	Reviewed by:		Project:	J1374 Mirman School

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	59	1	59	0	59	59	0	63	1	63	0	63	1	63	0	63	1	63
Left-Through		0							0				0				0	
Through	1331	2	**666**	6	1337	**669**	16	1429	2	**715**	6	1435	2	**718**	0	1435	2	**718**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	339	2	170	7	346	173	19	379	2	190	7	386	2	193	0	386	2	193
Through-Right		0							0				0				0	
Right	59	1	37	0	59	37	0	63	1	40	0	63	1	40	0	63	1	40
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	81	2	**45**	0	81	**45**	0	86	2	**47**	0	86	2	**47**	0	86	2	**47**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	53	1	24	0	53	24	0	56	1	25	0	56	1	25	0	56	1	25
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		666	*North-South:*		669	*North-South:*			715	*North-South:*			718	*North-South:*			718
	East-West:		45	*East-West:*		45	*East-West:*			47	*East-West:*			47	*East-West:*			47
	SUM:		711	*SUM:*		714	*SUM:*			762	*SUM:*			765	*SUM:*			765
VOLUME/CAPACITY *(V/C)* RATIO:			0.499			0.501				0.535				0.537				0.537
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.399			0.401				0.435				0.437				0.437
LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Appendix 14.4

LADOT Revised Transportation Assessment Approval Letter

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

16180 W. Mulholland Dr.
DOT Case No. Other WLA16-105026

Date: May 20, 2021

To: Susan Jimenez, Administrative Clerk
Department of City Planning

From: Eddie Guerrero, Senior Transportation Engineer EGJr
Department of Transportation

Subject: **REVISED TRANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF MIRMAN SCHOOL LOCATED AT 16180 MULLHOLLAND DRIVE**

On August 14, 2020, the Department of Transportation (DOT) issued a traffic assessment report to the Department of City Planning on the proposed Expansion of Mirman School project located at 16180 Mulholland Drive. However, since issuing this assessment, it has been brought to LADOT 's attention that since the suggested requirement for the Project's West Driveway at Mulholland Drive requires further LADOT review, that the requirement be modified to specify a timeframe in which to review the location and determine if corrective action is needed and to include the consideration of various potential improvements rather than the single improvement specified in the August 2020 assessment. As such, LADOT is requesting that the recommendation identified as A.1 in the August 14, 2020 assessment letter be revised as follows:

1. *Mulholland Drive and West Driveway*
   The applicant has considered the installation of a new traffic signal at the westerly driveway on Mulholland Drive, due to the additional trips generated by the project. The applicant will work with LADOT to monitor the location for a period of five years after completion of the project. Should any operational or safety issues arise, LADOT will work with the school to determine the appropriate measure(s) to address the issue. The determination regarding appropriate measures needed shall be subject to concurrence/approval from the LADOT West Valley District Office. All cost for the design and implementation of improvement measures deemed necessary by LADOT under this condition shall be the responsibility of the Project.

All other previous assessment recommended requirements should remain the same.

A copy of the previous August 14, 2020 assessment is attached for reference. If you have any questions, please contact me at eddie.guerrero@lacity.org.

Attachment

c: Valentina Knox-Jones, DCP
Jason Douglas, Council District No. 11
Tim Fremaux, DOT
Kevin Azarmahan, BOE
Patrick Gibson, Gibson Transportation Consulting, Inc.

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

16180 W. Mulholland Dr.
DOT Case No. Other WLA16-105026

Date: August 14, 2020

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Hamed Sandoghdar, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF MIRMAN SCHOOL LOCATED AT 16180 MULLHOLLAND DRIVE**

The DOT has reviewed the transportation analysis prepared by Gibson Transportation Consulting, Inc. received on May 13, 2020, with subsequent revision on July 22, 2020, for the proposed project located at 16180 West Mulholland Drive. In compliance with SB 743 and the CEQA, a VMT analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to increase the student enrollment at the existing Mirman School for Gifted Children located on the south side of Mulholland Drive west of Sepulveda Boulevard. The school has been in operation at this current location since 1971 and operates under a Conditional Use Permit that allows a maximum enrollment of 330 students. The school is proposing to increase the total enrollment to 430 students. The enrollment increase will also be accompanied by new construction to provide additional classrooms, lab space, athletic facilities and other support facilities. Access to the campus will be provided via three existing driveways on the south side of Mulholland Drive with the main entrance being the westerly driveway. The project is proposing to install a new traffic signal at the main driveway on Mulholland Drive. A copy of the site plan is provided as **Attachment A**. The school is expected to be reach maximum enrollment by 2025.

B. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project would generate a net increase of 234 daily vehicle trips. Therefore, a VMT analysis is not required and it is concluded that implementation of the Project would not result in a significant Household and Work VMT. The VMT calculator version 1.2 was the latest VMT calculator available at the time the May 13, 2020 analysis was submitted and accepted by DOT. A copy of the VMT calculator screening pages is provided as **Attachment B** to this report.

C. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. Although not required, the project has completed a voluntary circulation analysis using the previous "level of service" screening methodology that indicates that the trips generated by the proposed development will not result in adverse circulation conditions at any location. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as (Table 9) **Attachment C** to this report.

PROJECT REQUIREMENTS

A. Operational Improvement Measures (Non-CEQA Analysis)

In the transportation analysis dated May 13, 2020 by Gibson Transportation Consulting, Inc., the analysis included a review of current and potential future operational deficiencies that may result from the project. To address these deficiencies, the applicant has proposed to implement the following measures.

1. Mulholland Drive and West Driveway Signal

The applicant is proposing the installation of a new traffic signal at the westerly driveway on Mulholland Drive to improve safety and operation. A Final approval will be required by DOT West Valley District Office and DOT Signal Design Section.

B. Additional Requirements and Considerations

To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

1. Parking Requirements

Parking for vehicles and bicycles will be provided onsite. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for this project.

2. Highway Dedication and Street Widening Requirements

In order to mitigate potential access and circulation impacts, the applicant may be required to make highway dedications and improvements. The applicant shall consult the Bureau of Engineering (BOE) for any highway dedication or street widening requirements. These requirements must be guaranteed before the issuance of any building permit through the B-permit process of the BOE. They must be constructed and completed prior to the issuance of any certificate of occupancy to the satisfaction of DOT and BOE.

3. Project Access and Circulation
The proposed site plan is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's West LA/Coastal Development Review Section (7166 W Manchester Ave, @ 213-485-1062). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project from public streets via any of the project driveways.

4. Worksite Traffic Control Requirements
DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

5. Development Review Fees
Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

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

Attachments

c: Valentina Knox-Jones, DCP
Jason Douglas, Council District No. 11
Ken Firoozmand, DOT
Kevin Azarmahan, BOE
Patrick Gibson, Gibson Transportation Consulting, Inc.



Source: Johnson Favaro Architecture & Urban Design. December, 2019.

PROJECT SITE PLAN

FIGURE 1

16180 W.Mulholland Dr.-OtherWLA16-105026

Attachment "B"

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

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

Project Information

Project: Mirman School

Scenario: Wth Project Conditions

Address: 16180 MULHOLLAND DR, 90049



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

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	330	Students
School | Private School (K-12)	330	Students

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

Proposed Project Land Use

Land Use Type	Value	Unit
School | Private School (K-12)	100	Students
School | Private School (K-12)	430	Students

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

Project Screening Summary

Existing Land Use	Proposed Project
776 Daily Vehicle Trips	1,010 Daily Vehicle Trips
9,254 Daily VMT	12,046 Daily VMT

Tier 1 Screening Criteria

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

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	234 Net Daily Trips
The net increase in daily VMT ≤ 0	2,792 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is not required to perform VMT analysis.

Measuring the Miles

7/22/2020

TABLE 9
FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour [a]	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
* 1.	Hayvenhurst Avenue & US 101 Northbound Off-Ramp	AM	0.446	A	0.446	A	0.000	NO
		School PM	0.279	A	0.279	A	0.000	NO
		PM	0.568	A	0.568	A	0.000	NO
* 2.	Hayvenhurst Avenue & Magnolia Boulevard/US 101 Southbound On-Ramp	AM	0.816	D	0.818	D	0.002	NO
		School PM	0.398	A	0.398	A	0.000	NO
		PM	0.719	C	0.719	C	0.000	NO
* 3.	Hayvenhurst Avenue & Ventura Boulevard	AM	0.903	E	0.905	E	0.002	NO
		School PM	0.672	B	0.675	B	0.003	NO
		PM	0.863	D	0.863	D	0.000	NO
4.	Sepulveda Boulevard & I-405 / US 101 Ramps / Greanleaf Street	AM	0.741	C	0.743	C	0.002	NO
		School PM	0.828	D	0.829	D	0.001	NO
		PM	0.856	D	0.856	D	0.000	NO
5.	Sepulveda Boulevard & Fiume Walk	AM	0.647	B	0.647	B	0.000	NO
		School PM	0.285	A	0.286	A	0.001	NO
		PM	0.438	A	0.438	A	0.000	NO
* 6.	Sepulveda Boulevard & Valley Vista Boulevard	AM	0.718	C	0.720	C	0.002	NO
		School PM	0.498	A	0.499	A	0.001	NO
		PM	0.541	A	0.542	A	0.001	NO
11.	Walt Disney Drive & Mulholland Drive	AM	0.464	A	0.475	A	0.011	NO
		School PM	0.499	A	0.515	A	0.016	NO
		PM	0.487	A	0.494	A	0.007	NO
12.	Skirball Center Drive & Mulholland Drive	AM	0.845	D	0.864	D	0.019	NO
		School PM	0.560	A	0.571	A	0.011	NO
		PM	0.384	A	0.388	A	0.004	NO
* 13.	Skirball Center Drive & I-405 Northbound Ramps	AM	0.654	B	0.668	B	0.014	NO
		School PM	0.483	A	0.492	A	0.009	NO
		PM	0.755	C	0.759	C	0.004	NO
14.	Sepulveda Boulevard & Skirball Center Drive	AM	1.116	F	1.123	F	0.007	NO
		School PM	0.656	B	0.663	B	0.007	NO
		PM	0.863	D	0.865	D	0.002	NO
* 15.	Sepulveda Boulevard & I-405 Southbound Ramps	AM	1.095	F	1.098	F	0.003	NO
		School PM	0.811	D	0.815	D	0.004	NO
		PM	1.035	F	1.037	F	0.002	NO
16.	Sepulveda Boulevard & Mountaingate Drive	AM	0.929	E	0.932	E	0.003	NO
		School PM	0.439	A	0.441	A	0.002	NO
		PM	0.861	D	0.862	D	0.001	NO

Notes

[a] The School PM peak hour generally occurs between 2:00 and 4:00 PM due to the student dismissal schedule. The PM peak hour of adjacent street traffic (i.e., commuter PM peak hour) typically occurs between 4:00 and 6:00 PM.

* LOS calculated with reduced capacities in CMA worksheets in the AM and Commuter PM peak hour conditions, as the CMA methodology for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed.