

## **APPENDIX J.1**

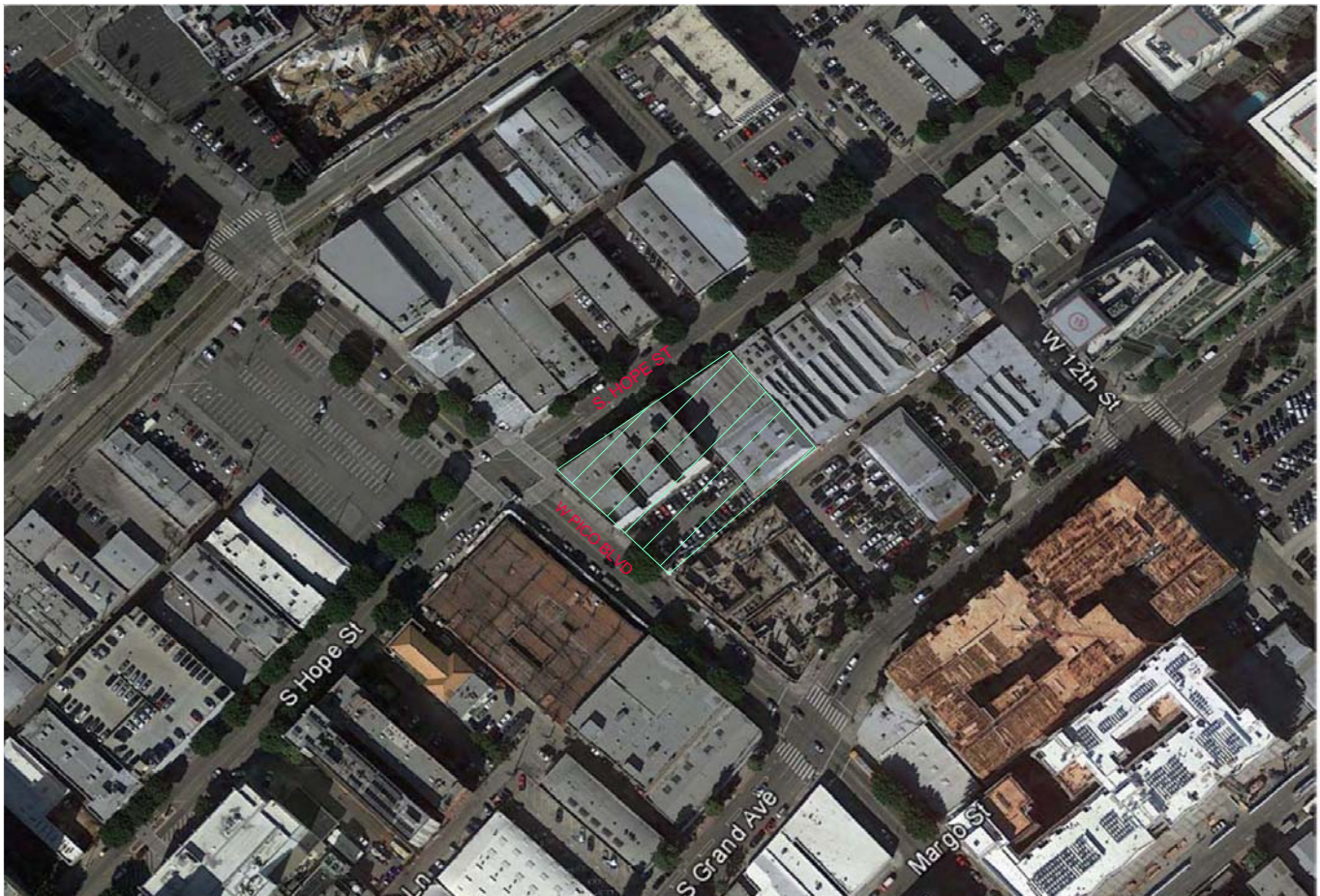
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### **Traffic Assessment**

- **Traffic Assessment**
- **Supplemental Traffic Assessment (Updated Buildout Year)**
- **Supplemental Transportation Assessment (Added Nearby Related Project)**
- **Alternatives Project Summary**

# TRAFFIC ASSESSMENT FOR THE MORRISON MIXED-USE PROJECT

Located at  
1220-1246 S. Hope Street and  
427-435 Pico Boulevard  
in the City of Los Angeles



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TRANSPORTATION ASSESSMENT  
FOR THE MORRISON  
MIXED – USE PROJECT  
(LADOT - CEN 18-45368)

Located at 1220-1246 South Hope Street and 427-435 Pico Boulevard  
in the Downtown Area  
of the City of Los Angeles

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September 2020



## **EXECUTIVE SUMMARY**

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### Introduction

Overland Traffic Consultants has prepared this assessment of the CEQA transportation impacts for a proposed mixed-use project located at 1220-1246 South Hope Street and 427-435 Pico Boulevard (Project) on the northeast corner of Hope Street and Pico Boulevard in the Downtown Area of the City of Los Angeles (City). See Figure 1 for the Project location.

### Transportation Assessment CEQA and NON – CEQA Review

On July 30, 2019, the City adopted vehicle miles traveled (VMT) as the criterion in determining transportation impacts under the State's California Environmental Quality Act (CEQA). These changes are mandated by requirements of the State of California Senate Bill 743 (SB 743).

The new CEQA guidelines for evaluating transportation impacts no longer focus on measuring automobile delay and level of service (LOS). SB 743 directs lead agencies to revise transportation assessment guidelines to include a transportation performance metric that promotes the reduction of greenhouse gas emissions, the development of multimodal networks, and access to diverse land uses. SB 743 must be adopted by local agencies by July 1, 2020.

The Los Angeles Department of Transportation (LADOT) traffic study process also adds another layer of non-CEQA analysis and review for projects. According to LADOT, the authority for requiring non-CEQA transportation analysis and potentially requiring improvements to address potentially identified deficiencies lies in the City's Site Plan Review authority as established in the Los Angeles Municipal Code (LAMC).

### Project Description

The Project is located at 1220-1246 South Hope Street and 427-435 Pico Boulevard (northeast corner of Hope Street and Pico Boulevard) in the Downtown area of the City. The Project has frontage along Hope Street to the west, an alley to the east, Pico Boulevard

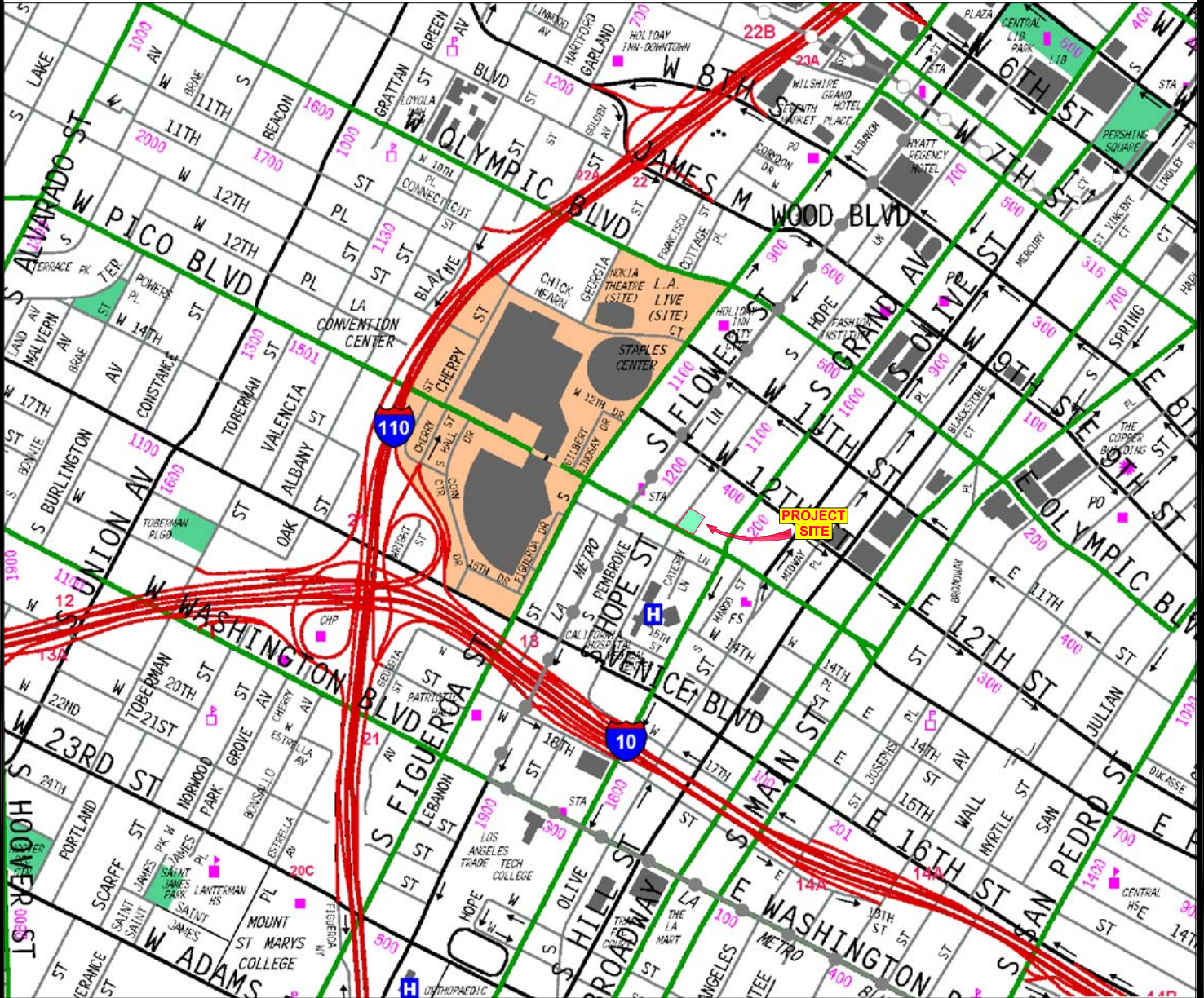


FIGURE 1

1/2020

PROJECT LOCATION

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to the south, and a neighboring business to the north. The site is currently developed with a vacant hotel that will be renovated as part of the Project and vacant commercial, industrial structures, and a surface parking lot.

The Project will renovate the existing four story hotel (Existing Hotel) as an adaptive reuse. A fifteen-story addition above grade and three- levels below grade is proposed as an expansion to the hotel (Hotel Expansion). The construction of a new hotel/residential tower (Hotel/Residential Tower) with varying heights including three stories above grade along Hope Street and south of the tower twenty-five floors above grade to the north of the three sections, and three levels below grade for parking. A courtyard will be provided between the existing Morrison building and the Hotel Expansion. An entry courtyard will be provided along Hope Street between the sidewalk, Morrison building, Hotel Expansion, and the three-story portion of the Hotel/Residential Tower. Land uses for the three buildings include 444 hotel rooms, 136 residential units, 9,848 square feet of high turnover restaurant, 11,091 square feet of Immersive Museum and 13,052 square feet of rooftop, and lobby restaurant/lounges. The three subterranean levels will extend the full site length and accommodate the parking, storage, facilities and a portion of the Immersive Museum. More details regarding the land uses is provided in the Project description on page 4.

### Parking and Access

Project parking will be provided in three subterranean levels with access from a driveway off an east-west partially covered driveway that along the north end of the site. The partially covered driveway is accessible from Hope Street or the existing north-south alley along the eastern boundary of the site. This alley extends from Pico Boulevard to 12<sup>th</sup> Street. Valet service will be provided along the new partially covered driveway for residents. Hotel guests, patrons of commercial establishments and Immersive Museum guests will drop off their vehicles for valet service along Hope Street and pick up their vehicles from valet service area along the alley for the hotel guests, along a second valet service area near the alley and Pico Boulevard for the



Immersive Museum guests and at the main valet station along Hope Street for the restaurants and lounges .

The Los Angeles Municipal Code (LAMC) requires a total of 349 vehicle parking spaces for the Project. A total of 222 parking spaces will be required after permissible reductions. The Project will provide 222 on-site parking spaces.

LAMC requires a total of 215 bicycle parking spaces (71 short term and 144 long term). The Project will provide, at a minimum, 216 bicycle parking spaces to ensure sufficient bicycle parking for vehicle parking replacement.

### Findings

#### California Environmental Quality Act (CEQA)

Based on the following review of the new CEQA guidelines, no significant CEQA VMT impacts are identified.

Potential conflicts with other proposed projects have been reviewed to assess cumulative impacts that may result from the proposed Project in combination with other development projects in the study area. No cumulative development project impacts have been identified that would preclude the City's ability to provide transportation mobility in the area.

#### Non-CEQA

A potential Project circulation (non-CEQA) and access deficiency has been identified at Hope Street and Pico Boulevard. This deficiency is attributable to circulation necessary to return vehicles during valet service. The Project proposes to manage the valet services to minimize circulation to/from the garage area using Pico Boulevard at Hope Street during the Peak Periods.



## TABLE OF CONTENTS

Chapter 1 – Introduction .....	1
Chapter 2 - Project Description.....	4
Chapter 3 - Project Traffic Characteristics .....	10
Project Traffic Generation .....	10
Chapter 4 – CEQA Transportation Assessment .....	15
Chapter 5 – NON - CEQA Transportation Assessment .....	29
Environmental Setting .....	29
Land Use .....	29
Transportation Facilities .....	31
Transit Information.....	34
Complete Streets Mobility Networks.....	36
Pedestrian, Bicycle and Transit Access Assessment.....	39
Removal or Degradation of Facilities .....	39
Project Intensification of Use .....	39
High Injury Network .....	40
Project Access, Safety and Circulation Evaluation.....	40
Operational Evaluation.....	40
Analysis of Existing and Future Traffic Conditions .....	42
Driveway Evaluation.....	54
Safety Evaluation .....	55
Passenger Load Evaluation .....	56
State Facility Evaluation.....	57
Construction Overview.....	60
Appendix A – LADOT MOU	
Appendix B – Community Plan Land Use Map	
Appendix C – Circulation Map, St. Standards, Ped. Destination Map & Aerial Views	
Appendix D – Transit Routes	
Appendix E – Mobility Network Maps	
Appendix F – VMT Reports	
Appendix G – Related Project Information Traffic Volume Data	
Appendix H – Traffic Volume Data and Level of Service Worksheets	





LIST OF FIGURES

Figure 1 - Project Location	vi
Figure 2 - Project Site Plan	6 – 7
Figure 3 - Project Setting	30
Figure 4 - Intersection Configuration and Traffic Control	44
Figure 5 - Project Traffic Assignment- Commercial & Residential	45
Figure 6- Combined Peak Hour Project Traffic Volume	46
Figure 7 - Existing Traffic Volume – Peak Hours	48
Figure 8 - Existing + Project Traffic Volume – Peak Hours	49
Figure 9 - Future Traffic Volume (Without Project) – Peak Hours	52
Figure 10 - Future Traffic Volume (With Project) – Peak Hours	53
Figure 11 - Related Project Traffic Locations	Apndx. -G

Apndx = Appendix



LIST OF TABLES

Table 1	Project Trip Generation Rates.....	12
Table 2	Project Traffic Generation.....	14
Table 3	Level of Service Definitions.....	42
Table 4	Traffic Conditions for Existing and Existing + Project.....	47
Table 5	Traffic Conditions for Future With and Without Project.....	50
Table 6	Future Driveway Operating Conditions.....	54
Table 7	Future Queue at Project Driveway.....	55
Table 8	Study Off Ramp Distribution and Trips.....	58
Table 9	Freeway Analysis Summary.....	59



## CHAPTER 1

## INTRODUCTION

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The focus of this study is to evaluate the CEQA-related traffic impact created by the increase in vehicle miles traveled (VMT) and non-CEQA related access and circulation deficiencies associated with the proposed mixed-use Project.

Pursuant to the Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines (TAG), July 2019 and July 2020, an applicant for a discretionary project will be required to prepare a transportation assessment if: 1) the development project would generate a net increase of 250 or more daily vehicle trips and requires a discretionary action; 2) if a Transportation Project is likely to induce additional vehicle miles traveled by increasing vehicle capacity, reduce roadway through lane capacity that exceed 750 vehicles per hour per lane for at least two consecutive hours in a 24 hour period after completion or 3) a transportation assessment is required by City ordinance or regulation.

This transportation assessment presents: (1) a CEQA assessment of Project-related VMT; (2) a CEQA assessment of whether the Project conflicts or is inconsistent with local plans and policies; (3) a non-CEQA assessment of pedestrian, bicycle and transit access; (4) a non-CEQA evaluation of Project access, safety, and circulation; (5) a non-CEQA review of Project construction activities; and (6) improvement measures, if deemed necessary.

CEQA Review – LADOT has developed a program to calculate VMT for new development projects. The VMT Calculator is a tool designed to measure whether a development project exceeds the VMT thresholds established by the City. The VMT program reports daily vehicle trips, household VMT per capita, and work VMT per employee for new development projects. The VMT program also calculates VMT reductions for transportation demand management (TDM) strategies.

The City's thresholds of significance for CEQA impacts to the transportation system are

the following:

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

*Threshold-2.1:* For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

*Screening*

*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?

*Threshold T-2.2:* For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?

*Threshold T-3:* Would the project substantially increase hazards due to a geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

According to the TAG, long-term, or cumulative, effects will be determined through a consistency check with the Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (SCAG RTP/SCS). The RTP is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) goals. Projects that are found to be consistent with this plan in terms of development location, density, and intensity are part of the regional solution for meeting air pollution and GHG reduction goals. Projects and land use plans that are deemed to be consistent would have a less than significant cumulative impact on VMT.



NON - CEQA - The non-CEQA analysis for the circulation and access review evaluates traffic conditions at nearby intersections for existing and future traffic conditions. The intersection traffic most likely to be affected by the development of the Project are listed below:

1. 12<sup>th</sup> Street and Hope Street;
2. Hope Street and Pico Boulevard;
3. 12<sup>th</sup> Street and Grand Avenue; and,
4. Grand Avenue and Pico Boulevard.

In addition, potential conflicts with other development projects have been reviewed to assess cumulative impacts that may result from the proposed Project in combination with other development projects.

## CHAPTER 2

## PROJECT DESCRIPTION

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The Project will adaptively reuse the existing four-story hotel (Existing Hotel). A fifteen-story addition above grade is proposed as an expansion to the hotel (Hotel Expansion). The construction of a new hotel and residential tower (Hotel/Residential Tower) with varying heights including three stories above grade along Hope Street south of the tower, twenty-five floors above grade along the north end of the site, and three stories below grade is proposed. The Existing Hotel includes 87 hotel rooms and 9,848 square feet of restaurant (inclusive of 4,751 square feet of dining space, 3,488 square feet of courtyard dining space, 232 sf of Chef Office and 172 square foot water closet plus 1,205 square feet of sidewalk restaurant on Pico Boulevard and Hope Street). The Hotel Expansion includes 357 hotel rooms, 8,751 square feet of open terrace restaurant/lounge on the 15<sup>th</sup> floor (inclusive of 1,678 square feet of restaurant/lounge, 1,063 square feet of kitchen/back of house, 97 square foot manager office, 33 square feet service area, 1,715 of covered amenity space, 166 square foot men's room, 171 square foot women's room, 151 square foot elevator and 3,677 square foot open terrace) and 11,091 square feet of Immersive Museum. The Hotel/Residential Tower will include 136 residences and 4,301 square feet of lobby/bar (inclusive of 2,792 square feet of serving space, 1,092 square feet of kitchen, 212 square foot women's room and 205 square foot men's room).

### Parking and Access

The LAMC requires a total of 349 vehicle parking spaces for the proposed Project. After permissible reductions of 20% of the vehicle parking and replacement of one vehicle space per 4 bicycle spaces for up to 15% of the residential parking and 30% of the commercial parking, the Project will be required, and will provide, 222 on-site vehicle parking spaces.

LAMC requires a total of 215 bicycle parking spaces (71 short term and 144 long term). The Project will provide, a total of 216 bicycle parking spaces.

Project parking will be provided in three subterranean levels with access from a garage entry off an east-west partially covered driveway along the north end of the site. The



partially covered driveway is accessible from Hope Street or the north-south alley along the eastern boundary of the site. The garage driveway will be located close to the alley and away from Hope Street. Valet service will be provided along this partially covered driveway out of the way of through traffic for residents. The hotel guests, patrons of commercial establishments and Immersive Museum will be provided with valet service and be able to drop off their car on Hope Street. Upon leaving the hotel guests will pick up their car from a valet service area along the alley for the hotel guests, along a second service area near the alley and Pico Boulevard for the Immersive Museum guests and at the main valet station along Hope Street for the restaurants and lounges . Figures 2a illustrates the Project plot plan and Figure 2b illustrates the ground level plan.

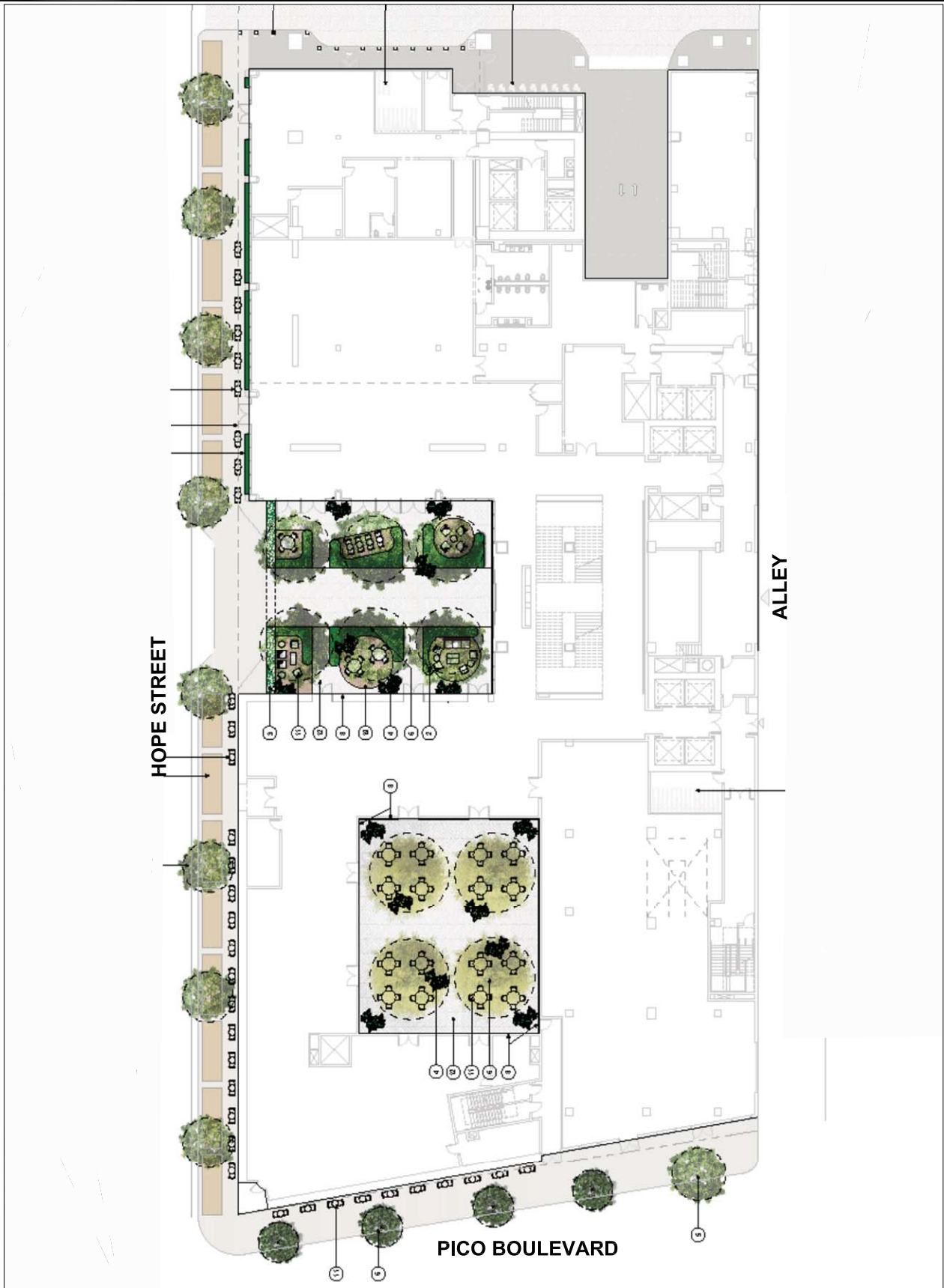


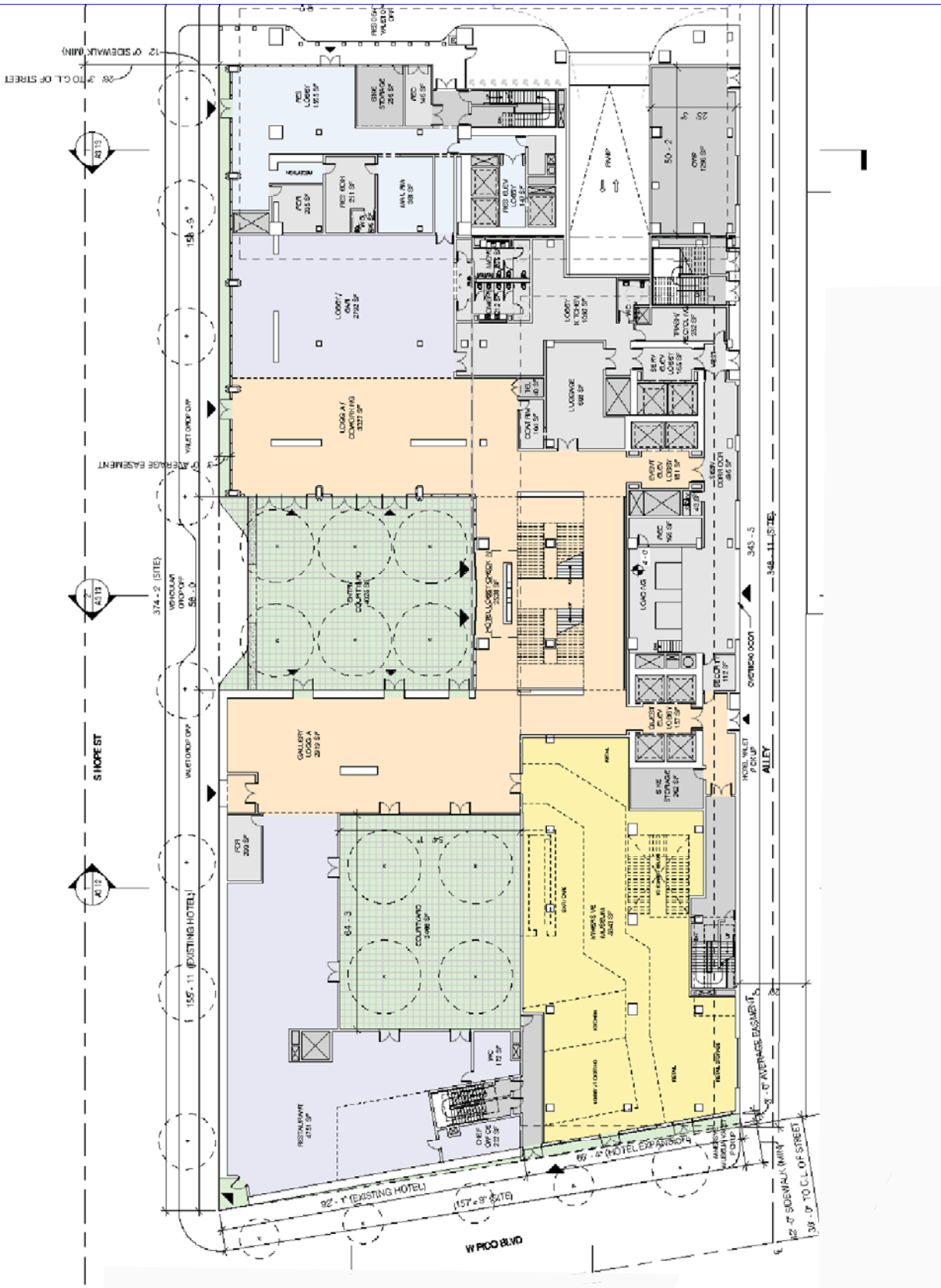
FIGURE 2a

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**PROJECT Layout with Outdoor Dining**


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FLOOR PLAN - LEVEL 01  
SCALE 1/8" = 1'-0"

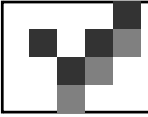
SHOP Architects

FIGURE 2b

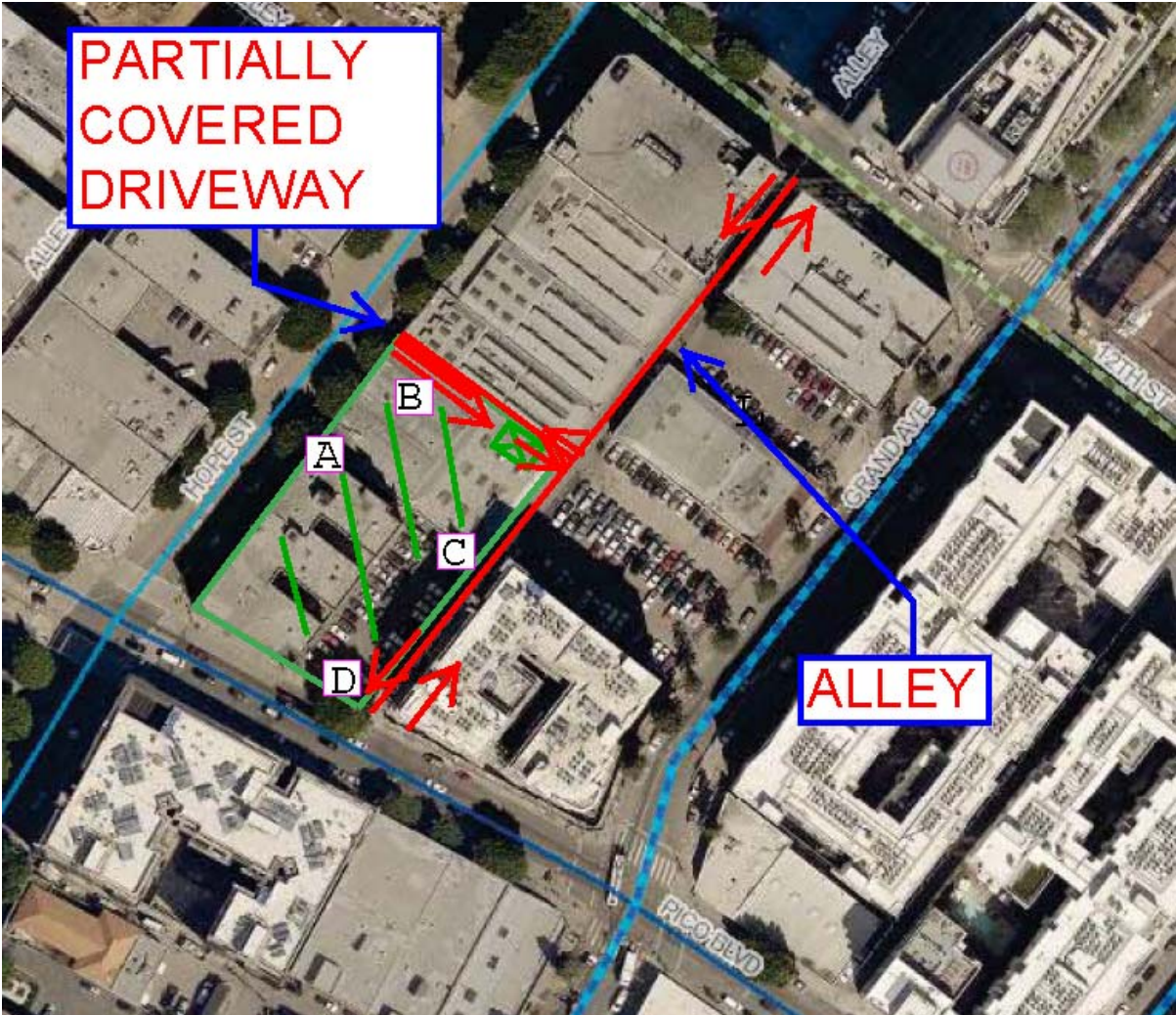
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PROJECT FIRST FLOOR PLAN

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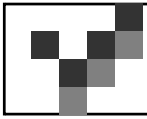


The adaptive reuse of the existing building does not require parking. The required vehicle parking for the Hotel Expansion and Residential/Hotel Tower will be provided on three subterranean levels. Vehicular access is provided from a garage entry off of the east-west partially covered driveway at the north end of the Tower building. The partially covered driveway is proposed as one-way eastbound to the garage entry. The driveway will be two-way along the front of the garage entry to the north-south alley along the eastern boundary of the site. The partially covered driveway will be approachable from Hope Street and the north-south alley to the east of the Project. The north-south alley extends from 12<sup>th</sup> Street to Pico Boulevard. Below is an aerial view of the future access and valet locations.



Valet service will be provided along the east-west partially covered driveway. Along the west end of the driveway there will be a protected area for residents who want to valet to turn in and out of the valet area (Area A on the aerial photo on page 8). The driveway will be one-way eastbound at this point. Resident drivers will turn over the vehicles to valet personnel who will travel to the driveway and turn into the parking areas. Upon exit, the valet personnel will pick up the vehicle in the garage, turn to the north-south alley, turn right to Pico Boulevard, right to Hope Street, and right in the partially covered driveway for pick-up by the drivers. Realistically, it is estimated that 50% of residential drivers will use valet service during peak morning and evening hours. The remaining residents will self-park. Originally, the all valet service was going to be provided in this area. However, in the non-CEQA circulation analysis, it was found that concentration of the valet services in one area for this Project may create an overburdened service area and circulation of returning vehicles around the garage to the alley to Pico Boulevard to Hope Street and back to the covered driveway would create an unnecessary increase in circulation at Pico Boulevard and Hope Street. Therefore, additional valet service areas were created for the non-residential uses.

Hotel guests, Immersive Museum, and Restaurant/Lounge guest will be able to use valet service by dropping off their vehicles on Hope Street at the Entry Courtyard (Area A on the aerial photo on page 8). Upon leaving the site, hotel patrons will pick up their vehicles from a valet service area along the alley (Area C on the aerial photo). Guests of the Immersive Museum will pick up their vehicles at a valet service along the southeast corner of the site (Area D of the aerial photo on page 8). The remaining guests of the restaurants and lounges will pick up their vehicles along the same valet service area where they dropped off their vehicle (Area B of the aerial photo on page 8). Ninety percent of the guests of the hotel, Immersive Museum and Restaurant/Lounges are estimated to use valet service. The balance (10%) will be drivers, such as employees, who choose to self-park.



Project Traffic Generation

The Project is evaluated using two processes as required by the LADOT TAG, July 2019.

The determination of potential CEQA traffic impacts and a potential traffic deficiency uses trip generation rates (number of trips generated) and VMT (measure of the amount of travel for all vehicles in a geographic region over a given period). For this study, as required by LADOT, the trip generation is used to determine how many trips are generated by a land use development to determine if a project exceeds established thresholds that require VMT analysis and for use, if needed, in estimating potential intersection and driveway deficiencies.

The City has prepared a VMT Calculator to estimate project-specific daily household VMT per capita and daily work VMT per employee metrics for land use development projects. This section (Chapter 3) provides Project trip generation estimates. Chapter 4 estimates Project VMT.

The proposed Project will include residential condominiums, hotel, high turnover and quality restaurants, and bar/lounges. The trip generating commercial tenants are estimated to include 9,848 square feet of high turnover restaurant, 13,052 square feet of quality restaurant with rooftop and lobby restaurant/lounge space and 11,091 square feet of Immersive Museum. To provide a conservative estimate, the 1,205 square feet of sidewalk restaurant space have been included in the high turnover restaurant square footage and the 3,677 square feet of open terrace restaurant/bar on the 15<sup>th</sup> floor of the Hotel Expansion has been included in the quality restaurant/bar space to determine trip generation. The trip generation rates for the hotel use includes the following amenity spaces ancillary to the proposed hotel, including fitness room, meeting spaces, loggia, lobby, and event/ballroom space. The trip generation rates for the residential uses includes the following ancillary residential uses, gym space, lounge, amenity and recreational spaces. Traffic-generating characteristics of land uses, including the proposed residential, and restaurant have been surveyed by the Institute of Transportation Engineers (ITE). The results of ITE's traffic generation studies have been published in a handbook titled Trip Generation Manual, 10<sup>th</sup> Edition. This publication of traffic generation data is the industry standard for estimating traffic generation for different

land uses. The ITE Trip Generation Manual defines housing based on the type and number of floors. Multifamily housing is separated by low-rise (1 to 2 floors), multifamily housing mid-rise (3 to 10 floors) and multifamily housing high-rise over 10 floors. The residential component for this Project would be over 10 floors and defined as multifamily housing high-rise. The hotel trip generation rates include the trips created by the amenity space. ITE defines a hotel as:

*A place of lodging that provides sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops.*

There is not a listing for Immersive Museum in the ITE Manual. There is, however, a trip generation rate for a Museum. However, the rates are for typically larger spaces and when applied the 11,091 square feet of space in this Project it does not reflect the potential patronage that would occur. Therefore, movie theater rates were used in this analysis. Conservatively 500 seats were used for the VMT analysis because VMT per seat was the option available in the LADOT calculator. This reflects the occupancy of the congregating space in the theater. The trip generation per 1,000 square feet was used for the Non-CEQA analysis due to the greater number of data collected to determine the ITE rates in the ITE Manual.

The ITE studies indicate that the use and the size associated with the proposed hotel, Immersive Museum and restaurant uses generally exhibit the trip-making characteristics depicted by the trip rates in Table 1.

**Table 1  
Traffic Generation Rates**

<b>Description</b>	<b>ITE CODE</b>	<b>Daily Traffic</b>	<b>AM Peak Hour</b>			<b>PM Peak Hour</b>		
			<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>
High Rise Residential	222	4.45	0.31	24%	76%	0.36	61%	39%
Hotel	310	8.36	0.47	59%	41%	0.60	51%	49%
Movie Theater*	444	78.09	0.22	94%	6%	6.17	94%	6%
Retail	820	37.75	0.94	62%	38%	3.81	48%	52%
Drinking Place**	925	56.80	negligible			11.36	66%	34%
Quality Restaurant	931	83.84	0.73	55%	45%	7.80	67%	33%
High Turnover Restaurant	932	112.18	9.94	55%	45%	9.77	60%	40%

Rate per unit for apartment & condo, per room for hotel, and per 1,000 sf all other

^LADOT Rate per July 2020 TAG Table 3.3-1: Local Trip Generation Rates for Multifamily Mid-Rise & High-Rise Residential in Dense Multi-Use Urban Areas

\* No AM Peak Hour Directional Distribution, same as PM Peak Hour used

\*\* no daily or AM Peak Hour rates, Daily estimated as 5X PM Peak and AM Peak negligible

The ITE rates are estimated without regard for the nature of the Project components' interaction between the land uses. For instance, it is likely that some patrons of the retail, restaurants, and lounges will also be guests of the hotel or residents. As summarized below and presented in Table 2 on page 14, a 20% internal trip reduction has been taken to account for this trip reduction activity for the Immersive Museum, restaurants and lounges.

In addition, the ITE rates are estimated without regard for the nature of the Project's vicinity in terms of transit availability and walkability. Considering the Project's multiple transit options, walkability and proximity to the Pico Rail Station, it is anticipated that hotel guests, employees and patrons will use these options and reduce use of single occupancy vehicles. As summarized on page 13 and presented in Table 2 on page 14, a 15% reduction was incorporated into the analysis for this activity.

Many uses are visited on the way to or from another main destination point. The greater the regional draw, the lower the pass-by activities. LADOT has established pass-by credits for several land uses. As summarized below and presented in Table 2 on page 14, a 20% reduction has been incorporated into the analysis for the ground floor high turnover restaurant which includes the restaurant in the Existing Hotel, the courtyard between the Existing Hotel and Hotel Expansion as approved by LADOT. These reductions are not taken at the adjacent intersection of Hope Street and Pico Boulevard



because drivers may need to make turning movements at this intersection to access the Project site.

To summarize, the specific land use credits include:

- Internal Trips:                   20% for Immersive Museum  
                                          20% for High Turnover Restaurant  
                                          20% for Quality Restaurant  
                                          20% for Rooftop & Lobby Restaurant/Lounge
- Transit Trips:                   15% for all Land Uses
- Pass-By Trips:                 20% for High Turnover Restaurant

The Project includes the following uses in the three buildings:

The Existing Hotel includes 87 hotel rooms and 9,848 square feet restaurant (inclusive of 4,751 square feet of restaurant space, 3,488 square feet of courtyard restaurant, 232 square feet of Chef office and 172 square foot restroom and 1,205 square feet of sidewalk restaurant space on Pico Boulevard & Hope Street) as trip generating components.

The Hotel Expansion includes 357 hotel rooms, 11,087 square feet of Immersive Museum on two floors, and 8,751 square feet of 15<sup>th</sup> floor rooftop restaurant/lounge including 1,678 square feet of seating, 1,063 square feet of kitchen/back of house, 97 square feet of manager office, 1,715 square feet of covered amenity space, 166 square feet of men's room, 171 square feet of women's room, 151 square foot elevator lobby and, conservatively, 3,677 square feet of open terrace.

The Hotel/Residential Tower will include 136 residences and 4,301 square feet lobby restaurant/lounge (inclusive of 2,792 square feet of seating area, 1,092 square feet of kitchen/back of house and 212 square feet of women's room and 205 square feet of men's room). There are additional amenities that are either not trip generating or are incorporated in the hotel trip generation including passive lobby areas, event/ballroom space, meeting space, amenity terrace space amenity gym, club room, pool and spa.

Based on the assumption above, the Project will generate a potential increase of total 5,603 daily trips with 276 trips during the morning peak hour and 466 trips during the



evening peak hour after trips credits. Table 2, below, displays the estimated Project trip generation.

Table 2  
Estimated Project Traffic Generation

ITE Code	Description	Size	Daily Traffic	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
<b>Proposed Project</b>									
222	High Rise Residential	136 units	605	42	10	32	49	30	19
	Transit Trips	15%	(91)	(6)	(1)	(5)	(7)	(4)	(3)
	Subtotal Residential		514	36	9	27	42	26	16
310	Hotel	444 rooms	3,712	209	123	86	266	136	130
	Transit Trips	15%	(557)	(31)	(18)	(13)	(40)	(20)	(20)
	Subtotal Hotel		3,155	178	105	73	226	116	110
932	High Turnover Restaurant*	9,848 sf	1,105	98	54	44	96	58	38
	Internal Trips	20%	(221)	(20)	(11)	(9)	(19)	(12)	(7)
	Transit Trips	15%	(133)	(12)	(7)	(5)	(12)	(7)	(5)
	Pass-by Trips	20%	(150)	(13)	(7)	(6)	(13)	(8)	(5)
	Subtotal Highturnover Restaurant		601	53	29	24	52	31	21
444	Immersive Museum**	11,091 sf	866	2	2	0	68	64	4
	Internal Trips	20%	(173)	(0)	(0)	(0)	(14)	(13)	(1)
	Transit Trips	15%	(104)	(0)	(0)	(0)	(8)	(8)	(0)
	Subtotal Quality Restaurant		589	2	2	0	46	43	3
931/925	Rooftop & Lobby Restaurant/Lounge***	13,052 sf	1,094	10	5	5	148	98	50
	Internal Trips	20%	(219)	(2)	(1)	(1)	(30)	(20)	(10)
	Transit Trips	15%	(131)	(1)	(1)	(0)	(18)	(12)	(6)
	Subtotal Rooftop Restr/Bar		744	7	3	4	100	66	34
<b>TOTAL PROPOSED</b>			<b>5,603</b>	<b>276</b>	<b>148</b>	<b>128</b>	<b>466</b>	<b>282</b>	<b>184</b>

\* Includes 4,751sf indoor seating+3,488sf courtyard+232sf chef office+172sf water closet & 1,205sf of sidewalk restaurant space on Pico & Hope

\*\* Cinema Land Use used for conservative estimate of Immersive Museum trip generation. Museum trip generation was lower.

\*\*\* Trip generation based on quality restaurant for daily and AM Peak Hour, based on drinking place for PM Peak Hour

Includes 8,751 sf rooftop restaurant/lounge on 15th floor of hotel expansion (1,678sf seating+1,063sf kitchen/BOH+97sf mgr office+33sf serv+1,715sf covered amenity space+166sf mens room+171 sf womens room+ 151 sf guest elevator lobby+(conservatively) 3,677 sf open terrace) and 4,301 sf restaurant/lounge in the lobby of the hotel/residential tower (2,792sf of seating+1,092sf kitchen+212sf womens room+205sf mens room)





## CHAPTER 4

## CEQA TRANSPORTATION ASSESSMENT

Amendments to the California Environmental Quality Act (CEQA) related to transportation impacts have been adopted by the State of California and the City of Los Angeles. In accordance with the new CEQA Section 15064.3, the Significance of Transportation Impacts shall be determined using the VMT metric rather than Level of Service (LOS), which measures vehicle delay. Below are the screening criteria and updated environmental checklist questions.

### **Project Screening Criteria**

If the development project requires a discretionary action, and the answer is yes to any of the following threshold questions, further analysis will be required to assess whether the proposed project would negatively affect existing pedestrian, bicycle, or transit facilities:

*1.1 Would the project generate a net increase of 250 or more daily vehicle trips?*

**Yes,** Using the VMT calculator for screening purposes (without credits for project components such as location, project included Transportation Demand Management features, internal trips or transit trips), the proposed Project will generate 4,240 vehicle trips. See the Screening Page of Appendix F for VMT Worksheets.

*1.2 Is the project proposing to, or required to, make any voluntary or required, modifications to the public right-of-way (i.e. street dedications, reconfigurations of curb lines, etc.)?*

**Yes,** Pursuant to the Mobility Element, Hope Street is designated as an Avenue II in the City of Los Angeles 2035 Mobility Plan. An Avenue II requires an 86-foot right-of-way, 56-foot roadway and 15-foot sidewalks. The Downtown Street Standards require a further 3-foot dedication to expand the sidewalk width. The Project site frontage along Hope Street is currently 80-feet of right-of-way. The Project would be required to provide a 3-foot easement which will be provided along Hope Street except along the existing building that will be renovated. The existing 12-foot sidewalk will be retained. The Project is requesting relief from the 3-foot dedication requirement to provide site cohesiveness because of the existing building that will be retained. Additional on-site

pedestrian walkways and interacting space will be provided in keeping with the spirit of the Downtown Street Standards.

Pico Boulevard creates southern boundary of the Project site. Pico Boulevard is designated as an Avenue I in the City of Los Angeles 2035 Mobility Plan. An Avenue I requires a 100-foot right-of-way, 70-foot roadway, and 15-foot sidewalks. The Downtown Street Standards require a further 3-foot dedication to expand the sidewalk width. The Project site frontage along Pico Boulevard is currently dedicated with 76-foot right-of-way transitioning to 72 easterly -feet of right-of-way. No dedication requirements are expected along the westerly portion of the Pico Boulevard due to the retention of the existing building. Up to a 14-foot dedication would be required along Pico Boulevard east of the existing building to the alley where there is a parking lot. In order to maintain a cohesive Project, instead a 3-foot easement will be provided along the Hotel Expansion's Pico Boulevard frontage to provide a minimum 12-foot sidewalk. The Project is requesting relief from the up to 14-foot dedication requirement along Pico Boulevard frontage to provide site cohesiveness because of the existing building that will be retained. Additional on-site pedestrian walkways and interacting space will be provided in keeping with the spirit of the Downtown Street Standards.

The alley along the eastern boundary of the Project site is required to be 20 feet in width. It is currently 20 feet in width and no dedication requirements are expected along the alley.

One driveway on Pico Boulevard and one driveway on Hope Street will be closed. A partially covered driveway off Hope Street will be created along the northern boundary of the Project site.

*1.3 Is the project on a lot that is ½ acre (21,750 square feet) or more in total gross area, or is the project's frontage along a street classified as an Avenue or Boulevard (as designated in the Mobility Plan 2035) with 250 linear feet or more, or is the project's frontage encompassing an entire block along an Avenue or Boulevard (as designated in the Mobility Plan 2035)?*

**Yes,** The site is over ½ acre with approximately 2.6 acres (56,326 gross square feet). **Yes,** 250 linear feet or more of Project frontage is along an Avenue or Boulevard. There is



approximately 374 feet of Project frontage along Hope Street which is designated an Avenue II roadway.

Based on the Screening Criteria, a full VMT analysis is required.

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

The threshold test is to assess whether a project would conflict with an adopted program, policy, plan, or ordinance that is adopted to protect the environment. In general, transportation policies or standards adopted to protect the environment are those that support multimodal transportation options and a reduction in VMT. Conversely, a project would not be shown to result in an impact merely based on whether or not it would implement a particular program, plan, policy, or ordinance. Many of these programs must be implemented by the City itself over time, and over a broad area, and it is the intention of this threshold test to ensure that proposed development projects and plans do not preclude the City from implementing adopted programs, plans and policies. This determination may require consultation with the City's Department of City Planning (LADCP) and LADOT.

The City has adopted programs, plans, ordinances and policies that establish the transportation planning framework for all travel modes. The goals are to achieve a safe, assessible and sustainable transportation system for vehicles, pedestrians, and cyclists.

**Impact Criteria for Threshold T – 1**

The methodology for determining project impacts associated with conflicts with plans, programs, ordinances, or policies is defined per the City's TAG as follows:

- A project that generally conforms with and does not obstruct the City's development policies will be generally considered consistent. A list of these element standards has been provided in the LADOT TAG. In addition, the City has provided a list of questions that are to be answered yes or no to determine a

conflict. In order to do so, the relevant policies and programs are reviewed to assess whether the proposed project precludes the City's implementation of any adopted policy and/or program.

- If a vacation of public right-of-way or relief from required street dedication is sought as part of the project, an assessment is required as to whether the right-of-way in question is necessary to a serve a long-term mobility need, as defined in the Mobility Plan 2035, transportation specific plan, or other planned improvement in the future.

The analysis of cumulative impacts may be quantitative or qualitative. Each of the plans, ordinances and policies reviewed to assess potential conflicts with proposed projects should be reviewed to assess cumulative impacts that may result from the proposed project in combination with other development projects in the study area. In addition, the cumulative analysis should also consider planned transportation system improvements within the study area as identified in consultation with LADOT.

Related projects considered in the cumulative analysis are known development projects located within a one-half mile radius of the Project Site. Please refer to the list of related projects identified in Table G-1 for the location of the related projects in relation to the Project Site.

### **CEQA Threshold T - 1 Finding**

LADOT provides a list of City documents that establish the regulatory framework and questions to determine project applicability to plans, policies and programs in their July 2019 & July 2020 Traffic Assessment Guidelines. This list has been reviewed, answered, and is provided in Appendix F with the VMT Calculation sheets. As found in the Evaluation of City Documents that Establish the Regulatory Framework and Questions to Determine Project Applicability to Plans, Policies and Programs summaries provided in Appendix F , the construction and operation of the proposed Project is in general conformance and consistent with standards adopted in the City's transportation plans and policies for all travel modes. The Project will not preclude the City's implementation of any adopted policy and/or program except where existing buildings preclude additional



public right-of-way dedications, easements or improvements and a reduction in dedication requirement is requested along Pico Boulevard. Additional pedestrian activating space will be provided on site.

The Project roadways identified in the Complete Streets Mobility Networks are identified on pages 37-39 of this report.

No vacation of public right-of-way is proposed for the Project. However, relief from street dedication is sought for both Hope Street and Pico Boulevard.

Hope Street is an Avenue II and requires an 86-foot right-of-way and 56-foot roadway. The Project site frontage along Hope Street is currently 80-feet of right-of-way. The Project would be required to dedicate 3 feet according to the Mobility Plan 2035 and provide a 3-foot easement for an 18-foot sidewalk according to the Downtown Street Standards along the portions of the site that do not hold the existing structure. The Downtown Street Standards require a 56-foot roadway with 15-foot sidewalks (with an additional 3 feet of easement for the sidewalks) along Hope Street. The Project will provide a 3-foot easement along Hope Street where feasible. The Project will provide on-site pedestrian open activating space with seating and landscaping throughout the center of the site and with a pedestrian walkway between the Existing Hotel/Hotel Expansion and the Hotel/Residential Tower. See Figure 2b on page 6 which illustrates these areas.

Pico Boulevard is an Avenue I and requires a 100-foot right-of-way and 70-foot roadway. The Project site frontage along Pico Boulevard is currently dedicated with 76-foot right-of-way transitioning to 72 feet easterly. The Downtown Street Standards require a 100-foot right-of-way with 3-foot easements for a 70-foot roadway with 15-foot sidewalks and 3-foot easements. No dedication is feasible on the west of the site along Pico Boulevard due to the retention of the existing building. A 3-foot easement will be provided along the east end of the site where there is currently a parking lot. However, as mentioned above, the Project will provide on-site pedestrian open activating space with seating and landscaping throughout the center of the site and with a pedestrian walkway between the Existing Hotel/Hotel Expansion and the Hotel/Residential Tower.

The Project is requesting relief from the dedications that will need to be approved and signed-off by the City. The relief is requested due to the existing building on the corner

that will be renovated and not removed precluding widening. As stated, the project will provide on-site pedestrian walkways and open space in keeping with the Downtown Street Standards goals.

One driveway on Pico Boulevard and one driveway on Hope Street will be closed. A partially covered driveway off Hope Street will be created along the northern boundary of the Project. Long-term, or cumulative, effects are determined through a consistency check with the SCAG RTP/SCS. The RTP is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) goals. The LADOT VMT analysis calculator has been developed based on the SCAG RTP/SCS principals and take into consideration cumulative effects. LADOT has indicated that projects, such as this Project, that are found to be consistent would have a less than significant cumulative impact on VMT. No cumulative VMT Project impacts have been identified.

**II. Environmental Checklist Threshold T - 2.1:** *Does the project conflict or would it be inconsistent with California Environmental Quality Act (CEQA) Guidelines Section 15064.3 subdivision (b)(1)?*

The State of California Governor's Office of Planning and Research (OPR) issued proposed updates to the CEQA Guidelines in November 2017 and an accompanying technical advisory guidance in April 2018 (OPR Technical Advisory) that amends Appendix G to refer to Section 15064.3, subdivision (b)(1) of the CEQA Guidelines asking if the project will result in a substantial increase in vehicle miles traveled (VMT). Section 15064.3, subdivision (b)(1) states the following:

- Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared

to existing conditions should be considered to have a less than significant transportation impact.

The intent of this threshold is to assess whether a land use project causes substantial VMT per capita, per employee, or total. LADOT has developed the following screening and impact criteria to address this question.

**Screening Criteria for Threshold T - 2.1**

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

*2.1-1 Would the project generate a net increase of 250 or more daily vehicle trips?*

**Yes**, Using the VMT calculator for screening purposes, the proposed Project will generate 4,240 vehicle trips without any TDM strategies.

*2.1-2 Would the project generate a net increase in daily VMT?*

**Yes**, Using the VMT calculator version 1.3, the new mixed-use Project would generate a net increase in daily VMT of 26,132. Refer to the Project Screening Summary of Appendix F which contains the VMT reports.

*2.1-3 If the project includes retail uses, does the portion of the project that contain retail uses exceed a net 50,000 square feet?*

**No**, the project proposes 33,981 square feet of commercial restaurants and Immersive Museum.

*2.1-4 Would the project be located within a one-half mile of a fixed-rail or fixed guideway transit station replace an existing number of residential uses with a smaller number of residential uses.*

**No**, the Pico Metro Station is approximately 500 feet from the Project site, but the Project will not replace residential uses with a smaller number of residential uses. The Project includes 135 new residential units, and the 111 vacant, single room occupancy (SRO) units in the Existing Hotel, will be replaced off-site under the terms of the Wiggins Settlement.

### **CEQA Threshold T - 2.1 Finding**

LADOT has identified thresholds for significance for VMT impacts for each of the seven Area Planning Commission (APC) sub-areas. The Project is located in the Central APC area. According to Table 2.2-1 in the LADOT TAG, the Daily Household VMT per Capita in the Central APC area is 6.0 and the Daily Work VMT per Employee is 7.6. The TAG states that a mixed-use project VMT impacts should be considered significant if any one (or all) of the project land uses exceed the impact criteria for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by any or all of the land uses could be considered.

A development project will have a potential impact if the development project would generate VMT exceeding 15% below the existing average VMT for the Area Planning Commission (APC) area in which the project is located.

In addition to the above screening criteria, the portion of, or the entirety of a project that contains small scale (less than 50,000 square feet) local serving retail/restaurant uses are assumed to have less than significant VMT impacts and a no impact determination can be made for the small scale retail/restaurant portion of the mixed-use project. This Project contains 33,981 square feet of restaurant and museum space but also includes 136 residential units, and 444 hotel rooms with associated amenities. The Project's residential daily household VMT per capita and work VMT per employee is considered for the Central APC threshold criteria.

Results of the Project's VMT calculation show a daily Household VMT per capita value of 3.5 (below the Central APC area threshold value of 6.0), and Work VMT of 6.6 (below the Central APC area threshold value of 7.6).

As depicted in Appendix F, the daily household VMT per capita is determined by the home-based production VMT from the (mixed use) MXD model combined with selected TDM strategies that are part of the project. The MXD model reports the VMT reductions with the mix of land uses in the Project as well as the demographics and build form of the surrounding area. The MXD model reports the VMT reductions by trip purpose for both



the proposed project and proposed project with mitigations, if needed. The Project featured TDM strategies included 20% reduced parking supply and permitted reduction of up to 15% of the residential parking and 30% of the commercial parking with 4 bicycle parking spaces per vehicle parking space (13% VMT reduction), by contributing to the bicycle infrastructure by providing code required bicycle parking (0.6% reduction) and by incorporating pedestrian network improvements within the project and connecting off-site (2% VMT reduction). The VMT is then divided by the number of people living within the project to get the VMT per capita value. The work VMT from the MXD model is determined by work-based production from the MXD model combined with TDM strategies that are part of the project. This VMT is then divided by the number of employees within a project to get the VMT per employee.

Based on the above VMT analysis, the proposed Project would not exceed the City's VMT Threshold and does not conflict with, nor would it be inconsistent with, CEQA Guidelines Section 15064.3 subdivision (b).

**III. Environmental Checklist Threshold T- 3.1:** *Does the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts. Impacts can be related to vehicle conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site. These conflicts may be created by the driveway configuration or through the placement of project driveway(s) in area.

**Screening Criteria for Threshold T- 3.1**

3.1 *Is the project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?*

**Yes,** Currently, there is one driveway on Pico Boulevard and one driveway on Hope

Street. The Project is proposing to remove both driveways. Vehicular access is provided from a driveway off the east-west partially covered driveway at the north end of the Hotel/Residential Tower building. The partially covered driveway is proposed as one-way eastbound from Hope Street to the driveway into the garage. The partially covered driveway will be two-way along the front of the driveway into the garage to the north-south alley along the eastern boundary of the site. The partially covered driveway will be approachable from Hope Street and the north-south alley to the east of the Project. A valet service drop-off/pick-up zone will be created on-site along the partially covered driveway for residents' exclusive use. In addition, two on-site loading docks are proposed off the north-south existing alley.

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

**Yes,** Pursuant to the Mobility Element, Hope Street is required to provide a 3-foot dedication. Due to the location of the existing Morrison building, no dedication can be made along the south end of the site's Hope Street frontage, but a 3-foot easement will be provided north of the existing building. The Project would be required to grant a 3-foot easement to widen the sidewalk from 12 feet to 15 feet based on the Downtown Street Standards along the portions of the site that do not hold the existing structure. In order to provide a cohesive site, the Project will provide on-site pedestrian open activating space with seating and landscaping throughout the center of the site and a pedestrian walkway between the Existing Hotel/Hotel Expansion and the Hotel/Residential Tower. See Figure 2b on page 6 which illustrates these areas.

Pico Boulevard is required to provide a 12- to 14-foot dedication along the south end of the site. No dedication requirements are feasible along the western portion of the Pico Boulevard frontage due to the retention of the existing building. A 3-foot easement will be provided along the east end of the site where there is currently a parking lot. However, as mentioned above, the Project will provide on-site pedestrian open activating space with seating and landscaping throughout the center of the site and a pedestrian walkway between the Existing Hotel/Hotel Expansion and the Hotel/Residential Tower.

### **Impact Criteria for Threshold T – 3**

Preliminary project access plans are to be reviewed in light of commonly accepted traffic engineering design standards to ascertain whether any deficiencies are apparent in the Site access plans which would be considered significant. The determination of significance shall be on a case-by-case basis, considering the following factors:

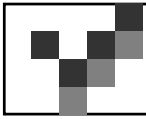
- The relative amount of pedestrian activity at project access points.
- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The type of bicycle facilities the project driveways cross and the relative level of utilization.
- The physical conditions of the site and surrounding area, such as curves, slopes, walks, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle, or vehicle/vehicle impacts.
- The project location, or project-related changes to the public right-of-way, relative to proximity to the High Injury Network or a Safe Routes to School program area.
- Any other conditions, including approximate location of incompatible uses that would substantially increase a transportation hazard.

### **CEQA Threshold T - 3.1 Finding**

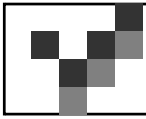
The Project does not involve any design features that are unusual for the area or any incompatible uses. Changes to the site are made by removing one driveway on Pico Boulevard, one driveway on Hope Street and creation of a new partially covered driveway for the driveway entry into the garage along the north end of the site. No deficiencies are apparent in the site access plans which would be considered significant.

This determination considers the following factors:

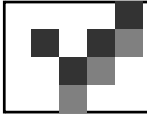
1. The Project includes a 3-foot average easement along Hope Street from north of the existing Morrison building to the northerly property line.



2. The Project includes expansive pedestrian activation areas along portions the new Hotel/Residential tower's Hope Street frontage.
3. The Project proposes an entry courtyard between the existing Morrison building/proposed Hotel Expansion and the Hotel/Residential tower that will provide additional interaction pedestrian space along Hope Street and connecting to the sidewalk area.
4. The Project is removing one existing driveway from Pico Boulevard and one existing driveway on Hope Street and providing a northerly partially covered driveway with access from Hope Street along the western property line and the alley along the eastern property line. This will reduce the number of driveways along the public right-of-way and make use of an existing alley.
5. On-site loading docks are proposed off the existing north-south alley.
6. Pedestrian activity around the driveway entry point from the driveway is currently non-existent and estimated to be low with Project completion. Pedestrian activity will be high to the west of the driveway due to the residential valet services but pedestrians entering and exiting their vehicles will be directed to the Hope Street westerly.
7. The Project driveway into the garage will be positioned off a covered driveway that will not have features or physical configurations that affect the visibility of pedestrians or cyclists to drivers entering or exiting the site or visibility of cars to pedestrians and cyclists.
8. There are no bicycle facilities that cross the Project driveway.
9. Neither Pico Boulevard or Hope Street are part of the cities HIN or safe routes to school program.
10. The Project would not directly or indirectly result in a permanent removal of modification that would lead to a degradation of pedestrian, bicycle or transit facilities.



- a. Existing sidewalks and crosswalks would remain without reduction in width. All sidewalk along the Project frontage that is cracked or in poor condition will be repaired.
  - b. There are no existing bikeways or supporting facilities along the Project frontage of Hope Street or Pico Boulevard. There would be no bikeway degradation or removals.
  - c. There are no existing transit or circulator facilities along the Project frontage of Hope Street or Pico Boulevard. There would be no transit facility degradation or removals.
  - d. There will be no removal of other existing transportation system elements supporting mobility.
  - e. The roadways of Hope Street and Pico Boulevard will not be widened. There will be no increase in crossing distance for pedestrians, increase in number of travel lanes or increase in turning radius or turning speeds.
  - f. There will be no removal or narrowing of any existing sidewalk, path, crossing, or pedestrian driveway.
  - g. There will be no narrowing of existing sidewalk street buffering elements. Street trees may be replaced for an upgraded environment.
11. The Project will increase the number of pedestrians, bicycles, and transit facilities in the immediate area around the Project and in the downtown area.
- a. The Project is located on the north east corner of South Hope Street and Pico Boulevard. An existing traffic signal is provided at this location. There are no land uses mid-block across the street from the Project that would likely create a need to cross mid-block at an unmarked pedestrian crossing because of the immediate adjacent traffic signal and other nearby signalized intersections to the north and east that are 280 and 290 feet from the Project site.



- b. There are no gaps in the sidewalk network creating a substandard pedestrian facility to/from major destinations downtown or transit stops.
- c. There would be an increase in transit demand with the Project. There are no bus stops immediately adjacent to the Project. The Pico Metro Station is approximately 500 feet from the Project site that is well lighted, provides benches and shelter.



## CHAPTER 5

## NON - CEQA TRANSPORTATION ASSESSMENT

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The authority for requiring a non-CEQA transportation analysis and potentially requiring improvements to address identified deficiencies lies in the City's Site Plan Pursuant to the TAG, a delay - based analysis has been used to evaluate if the Project would contribute to potential circulation and access deficiencies that require specific operational improvements to the circulation system. To assist in the non - CEQA evaluation, the following information provides the environmental setting in which the Project is located.

### ENVIRONMENTAL SETTING

#### Land Use

The Project is located in the Central City Community Plan area. The current active land use map for the study area is provided in Appendix B. The Central City Community Plan includes areas for multi-family residential uses, commercial uses, industrial uses, open space and public facilities.

The City of Los Angeles Mobility Plan 2035 (Mobility Plan 2035) was approved by the City Planning Commission and adopted by the City Council on September 7, 2016 under Council File No. 15-0719. The Mobility Plan 2035 dictates the street standards and designations within the Central City Community Plan area. The proposed Project will be subject to the Mobility Plan 2035. The Mobility Plan 2035 standards, designation elements and map of potential pedestrian destinations within 1,320 feet of the Project site are provided in Appendix C.

In addition to collecting traffic volume data for this analysis, field surveys were conducted in the study area to determine the roadway and intersection geometry and traffic signal operations. Figure 3 illustrates the environmental setting near the Project site.

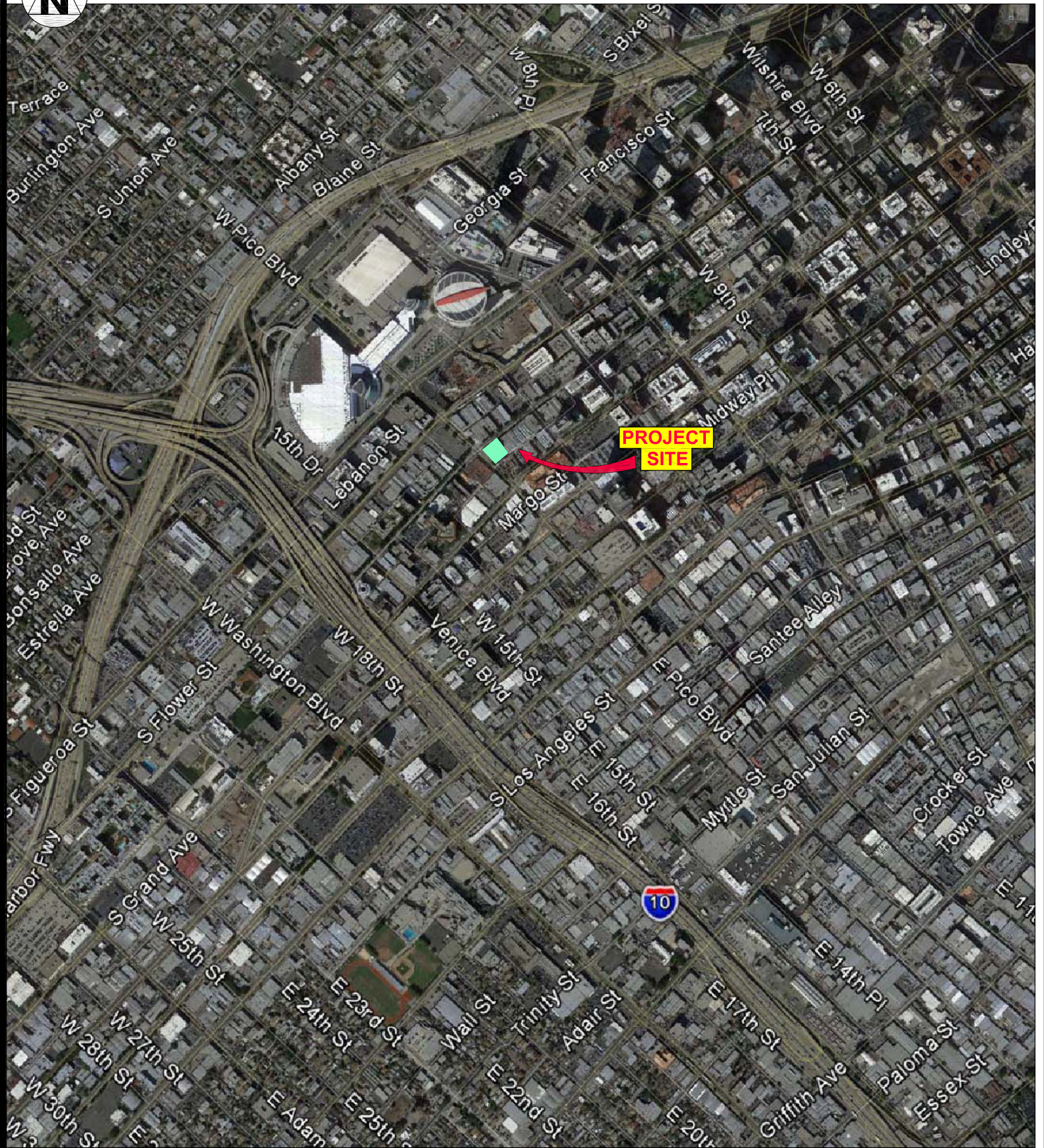


FIGURE 3

10/2017

PROJECT SETTING

 Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
(310) 545-1235 phone, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)





A brief description of the affected roadway facilities is provided below with the aerial views of the roadways, current City street standards and the Mobility Plan 2035 Map provided in Appendix C.

### Transportation Facilities

The Project is in the Downtown Los Angeles area, which is serviced by multiple freeways. The Harbor Freeway (I-110) is approximately 2,400 to the west of the Project site and the Santa Monica Freeway (I-10) is approximately 1,700 feet to the south of the Project site. The Harbor Freeway is a regional north-south freeway and the Santa Monica Freeway is an interstate east-west freeway. The Harbor Freeway operates between the City of Pasadena and the community of San Pedro. The Santa Monica Freeway operates from the City of Santa Monica to the east coast. These freeways link to numerous other freeways in the vicinity providing extensive regional access. The Harbor Freeway is accessible via Blain Street, LA Live Way, and James M. Wood Boulevard in the Project area. The Santa Monica Freeway is accessible from 18<sup>th</sup> Street west of Grand Avenue and from 17<sup>th</sup> Street east of Main Street.

The State of California Department of Transportation (Caltrans) website indicates that the Harbor Freeway carries approximately 268,000 vehicles per day (VPD) with 16,700 vehicles per hour (VPH) at the junction to the Santa Monica Freeway during peak periods. According to the Caltrans website, the Santa Monica Freeway is approximately 4,300 feet south of the Project site and carries approximately 340,000 VPD with 23,800 VPH at the junction to the Harbor Freeway during the peak periods.

12<sup>th</sup> Street is an east-west operating roadway designated as a Modified Collector east of Flower Street in the Project area in Mobility Plan 2035. 12<sup>th</sup> Street provides one lane in each direction near Figueroa Street and two eastbound lanes east of Flower Street. Current construction for structures north and south of 12<sup>th</sup> Street between Figueroa Street and Flower Street has affected roadway volumes on this roadway in this area. 12<sup>th</sup> Street spans from Pico Boulevard near Figueroa Street to South Hooper Avenue in Downtown Los Angeles. Time limited metered parking on-street is permitted on 12<sup>th</sup> Street in the Project area.



Broadway is a north-south operating roadway designated as a Modified Avenue II in the Mobility Plan 2035. Broadway provides two northbound and one southbound lanes at 8<sup>th</sup> Street. Bike lanes are provided on Broadway in the Project area. Time limited metered on-street parking is permitted on Broadway in the Project area.

Figueroa Street is a north-south operating roadway designated as a Modified Boulevard II in the Project area in the Mobility Plan 2035. Figueroa Street provides two lanes in each direction in the Project area that transitions to northbound travel only north of Olympic Boulevard. A bus lane is provided on Figueroa Street. Time limited metered on-street parking is permitted along portions of Figueroa Street in the Project area.

Flower Street is a one-way south operating roadway designated as a Modified Avenue I in the Project area in the Mobility Plan 2035. Flower street provides two to three southbound lanes near Pico and a landscaped area with the Metro Pico Station for the Blue Line at the intersection. Construction activity is evident in the area. Time limited metered on-street parking is permitted along Flower Street in the Project area.

Grand Avenue is a one-way southbound roadway designated as a Modified Avenue II in the Project area in the Mobility Plan 2035. Grand Avenue provides two to three southbound lanes in the Project area with bike lanes. Time limited metered on-street parking is permitted on Grand Avenue in the Project area.

Hope Street is a north-south operating roadway designated as an Avenue II in the Project area in the Mobility Plan 2035. Hope Street provides two lanes in each direction at 12<sup>th</sup> Street reducing to one lane in each direction south of Pico Boulevard. Along the Project frontage, there is one northbound lane with metered parking on the east side of the street. Three lanes are provided at the Hope Street intersection with Pico Boulevard, with a left, through and right turn lane and metered parking on the west side of the street. Time limited metered on-street parking is permitted on Hope Street in the Project area.

Pico Boulevard is an east-west operating roadway designated as an Avenue I in the Project area in the Mobility Plan 2035. Pico Boulevard provides two lanes in each direction in the Project area. Time limited metered on-street parking is permitted on Pico Boulevard in the Project area.



Venice Boulevard is an east-west operating roadway designated as a Modified Avenue II in the Project area in the Mobility Plan 2035. Venice Boulevard provides two lanes in each direction in the Project area. Time limited metered on-street parking is permitted on Venice Boulevard in the Project area, reducing the capacity to one lane in each direction during off-peak travel time periods.

The roadway designations and aerial pictures of the Project study intersections are provided in Appendix C.



### Transit Service Information

The City's downtown area offers multiple public transportation opportunities in the Project vicinity. Public transportation in the study area is provided by the Metropolitan Transportation Authority (Metro), the LADOT Dash service (DASH- LDD & LDF) and Commuter Express Service (CE), Santa Monica Big Blue Bus (BBB), Orange County Transportation Authority (OC), Metro Rail, and Metro Rapid. The Pico Metro Station is located along Flower Street north of Pico Boulevard approximately 600 feet walking distance from the Project site.

Metro Transit local lines provide service along Hope Street in the Project area, including:

- Metro 30/330

Metro Rail lines, Commuter Express, and Orange County Transportation Authority provide service along Flower Street in the Project area, including:

- Metro Expo Line
- Metro Blue Line
- Metro Silver Line and Silver Express
- BBB R10
- OC 701 and & 721
- CE 438 and 448

Metro Transit local lines, Big Blue Bus, DASH and Commuter Express, provide service along Grand Avenue in the Project area, including:

- Metro 37, 70, 71, 76, 78, 79, 96, 378, and Rapid 770
- CE 431 and 437
- LDD

Metro Transit lines, Commuter Express and DASH provide service along Figueroa Street in the Project area, including:

- Metro 81, 442,460
- Metro Silver Line and Silver Express
- CE 438, 439, and 448
- LDF



Metro Transit local lines and Metro Rapid lines provide service along Venice Boulevard in the Project area, including:

Metro Transit Lines 2, 4, 33, and 302

Metro Rapid Lines 733 and 770

There is a Route 30/330 bus stop on the south side of Pico Boulevard, south of Hope Street, approximately 100 feet from the Project site and a bus stop on the north side of Pico Boulevard, east of Grand Avenue, approximately 500 feet from the site.

There are bus stops at Grand Avenue and Pico Boulevard approximately 500 feet from the Project site for Routes 37, 70, 71, 76, 78, 79, 96, 378, 7790, CE431, CE437 & LDD.

The Pico Metro Station is approximately 500 feet from the Project site. This station provides service for the Metro Blue Line, which operates between 7thStreet/Metro Center and downtown Long Beach, as well as service for the Expo Line, which operates between the 7thStreet/Metro Center and downtown Santa Monica.

Transfer opportunities are available to/from Downtown Los Angeles from the Metro, local and regional lines. The transit lines, Metro lines, and associated stops in the Project area are illustrated in Appendix D.



Complete Streets Mobility Networks (Vehicle, Bicycle, Transit, Neighborhood and Pedestrian Enhanced Districts) (Referenced in CEQA Analysis T-1 on page 17)

The Mobility Plan Element establishes a layered network of street standards that are designed to emphasize mobility modes within the larger system. This approach maintains the primary function of the streets that exist but identifies streets for potential alternative transportation modes providing a range of options available when selecting the appropriate design elements. Street may be listed in several networks with the goal of selecting a variety of mobility enhancements.

Network layers have been created that prioritize a certain mode within each layer with the goal of providing better connectivity. The network layers are: Vehicle Enhanced Network, Transit Enhanced Network, Bicycle Enhanced Network, and Neighborhood Enhanced Network. Definitions of these networks per the Complete Street Design Guidelines are provide below.

Vehicle Enhanced Network (VEN) - The VEN includes a select number of arterials that carry high volume of traffic for long distance travel on corridors with freeway access. Moderate enhancements typically include technology upgrades and peak-hour restrictions for parking and turning movements. Comprehensive enhancements can include improvements to access management, all-day lane conversions of parking, and all-day turning movement restrictions or permanent access control.

- No study area streets have been identified in the VEN.

Transit Enhanced Network (TEN) - The TEN is comprised of streets that prioritize travel for transit riders.

- Figueroa Street, west of the site, is designated as a Comprehensive Transit Enhanced street.
- Venice Boulevard, south of the site, is designated as a Comprehensive Transit Enhanced street.



Bicycle Enhanced Network (BEN) – The BEN is comprised of a network of low-stressed protected bike lanes (Tier 1) and bike paths prioritize bicycle travel by providing specific bicycle facilities and improvements. The BEN also proposes bike facilities on arterial roadways with a striped separation. Tier 1 corresponds to protected bicycle lanes, and Tier 2 and Tier 3 bicycle lanes on arterial roads with a striped separation that are differentiated only by their potential implementation phasing - the difference between Tier 2 and Tier 3 implies probability that some lanes are not expected to be implemented by 2035.

- Figueroa Street, south of the site, from 7<sup>th</sup> Street southerly is designated as part of the Bicycle Enhanced Network.
- Grand Avenue, east of the site, between 7<sup>th</sup> Street and Washington Boulevard is designated as part of the Bicycle Enhanced Network.
- Pico Boulevard, along the southern boundary of the site, is part of Tier 3 bicycle lane network.

The City adopted a 2010 Bicycle Master Plan to encourage alternative modes of transportation throughout the City. The Master Plan was developed to provide a network system that is safe and efficient to use in coordination with the vehicle and pedestrian traffic on the City street systems. The Master Plan has mapped out the existing, funded and potential future Bicycle Paths, Bicycle Lanes, and Bicycle Routes. A brief definition of the bicycle facilities is provided below:

Bicycle Path – A bicycle path is facility that is separated from the vehicular traffic for the exclusive use of the cyclist (although sometimes combined with a pedestrian lane). The designated path can be completely separated from vehicular traffic or cross the vehicular traffic with right - of - way assigned through signals or stop signs.

- No bike paths are identified in the study area.

Bicycle Lane – A bicycle lane is typically provided on street with a designated lane stripped on the street for the exclusive use of the cyclist. The bicycle lanes are occasionally curbside, outside the parking lane, or along a right turn lane at intersections.



- Pico Boulevard, along the southern boundary of the site, is identified as a Tier 3 bicycle lane network street.

Bicycle Route – A bicycle route is a designated route in a cycling system where the cyclist shares the lane with the vehicle. Cyclist would follow the route and share the right-of-way with the vehicle.

- No bike routes are identified in the study area.

Neighborhood Enhanced Network (NEN) - NEN is comprised of local streets intended to benefit from pedestrian and bicycle related safety enhancements for more localized slower means of travel while preserving the connectivity of local streets to other enhanced networks. These enhancements encourage lower vehicle speeds providing added safety for pedestrians and bicyclists.

- Hope Street north of Pico Boulevard, in the Project area, has been identified in the NEN.
- Pico Boulevard east of Hope Street to Stanford Avenue, in the Project area, has been identified in the NEN.

#### Pedestrian Enhanced District (PEDs)

In addition to these street networks, many arterial streets that could benefit from additional pedestrian features to provide better walking connections are identified as Pedestrian Enhanced Districts.

Several streets within the study area have been identified in the pedestrian enhanced district maps with the goal of providing a more attractive environment to promote walking for shorter trips. Adding pedestrian design features and street trees encourages people to take trips on foot instead of by car. This helps to reduce the volume of cars on the road and emissions, increase economic vitality, and make the City feel like a more vibrant place.

- Many streets in the downtown area are identified in the Pedestrian Enhanced District including along both Hope Street and Pico Boulevard Project frontages.





Mobility Plan Element Network Maps and the 2010 Bicycle Plan maps are included in Appendix E.

## PEDESTRIAN, BICYCLE AND TRANSIT ACCESS ASSESSMENT

Purpose - The pedestrian, bicycle and transit facilities assessment is intended to determine a project's potential effect on pedestrian, bicycle and transit facilities in the vicinity of the proposed project. The deficiencies could be physical (through removal, modification, or degradation of facilities) or demand-based (by adding pedestrian or bicycle demand to inadequate facilities).

### Findings

#### Removal or Degradation of Facilities

The Project will not remove, modify or degrade any pedestrian, bicycle and transit facilities in the vicinity of the proposed Project. In fact, any damaged or off-grade sidewalk, curb and gutter along the property frontage will be repaired under Section 12.37 of the LAMC. In addition, the pedestrian environment will be enhanced by the Project by providing wider sidewalks and new street activation space along the Hotel/Residential Tower Hope Street frontage, and new pedestrian access way between the Existing Hotel/Hotel Expansion and the Hotel Residential Tower.

#### Project Intensification of Use

The Project is located on Hope Street, which is designated as an Avenue II roadway and is included in the Neighborhood Enhanced Network and Pedestrian Enhanced District. The Project is also located on Pico Boulevard, which is designated as an Avenue I and is included in the Bicycle Enhanced Network, Neighborhood Enhanced Network and Pedestrian Enhanced District. No bike facilities are currently located along the Project frontage of Hope Street or Pico Boulevard. However, Pico Boulevard is identified as a potential future Tier 3 bike facility. Pedestrian facilities will be improved along Hope Street with the removal of one driveway, additional sidewalk width, and



entry to pedestrian activated sites with commercial frontage, seating and walkway to the alley. Street frontage along Pico Boulevard will be improved with new landscaping along the Project frontage and increased sidewalk width east of the existing Morrison building.

### High Injury Network

Vision Zero Los Angeles identified a strategic plan to reduce traffic deaths to zero by focusing on engineering, enforcement, education and evaluation. The priority identified in the report is safety with a goal to make the streets of the City the safest in the nation. As part of an effort to achieve this goal, LADOT identified a High Injury Network (HIN) of city streets. The HIN identifies streets with a high number of traffic related severe injuries and deaths across all modes of travel with emphasis on those involving pedestrians and cyclists. Neither Hope Street nor Pico Boulevard are part of the City's HIN.

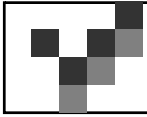
## PROJECT ACCESS, SAFETY AND CIRCULATION EVALUATION

Purpose – Project access and circulation is evaluated for safety, operational, and capacity constraints using vehicle level of service to identify circulation and access deficiencies that may require specific operational improvements. CEQA analysis for other subject areas, such as air quality analysis, may also continue to rely on vehicle level of service analysis.

### Operational Evaluation –

Criteria - Per the TAG, the Transportation Assessment should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing at project driveway(s) or would cause or substantially extend queuing at nearby signalized intersections. Unacceptable or extended queuing may be defined as follows:

- Spill over from turn pockets into through lanes.



- Block cross streets or alleys.
- Contribute to “gridlock” congestion. For the purposes of this section, “gridlock” is defined as the condition where traffic queues between closely - spaced intersections and impedes the flow of traffic through upstream intersections.

Evaluation – One driveway will be removed from both Pico Boulevard and Hope Street. There will be no driveways on Pico Boulevard. On Hope Street, a new partially covered driveway will be created with a driveway into the garage near the eastern boundary of the site. The following traffic conditions evaluation has been prepared to identify any new circulation and access deficiencies along Hope Street, Pico Boulevard and the alley that may require specific operational improvements.

The circulation level of service evaluation has been prepared using the Highway Capacity Manual (HCM) methodology which calculates the amount of delay per vehicle based upon the intersection traffic volumes, lane configurations, and signal timing. The average delay is reported at signalized locations for all vehicles passing through the intersection.

Once the HCM value (using Highway Capacity Software (HCS)) has been calculated, operating characteristics are assigned a level of service grade (A through F) to estimate the level of congestion and stability of the traffic flow. The term "Level of Service" (LOS) is used by traffic engineers to describe the quality of traffic flow. Definitions of the LOS grades in terms of vehicle delay are shown in Table 3.

Table 3  
Level of Service Definitions

<u>LOS</u>	HCM (delay in seconds)	<u>Operating Conditions</u>
A	Less than 10	No loaded cycles and few are even close. No approach phase is fully utilized with no delay.
B	>10 to 20	A stable flow of traffic.
C	>20 to 35	Stable operation continues. Loading is intermittent. Occasionally drivers may have to wait more on red signal and backups may develop behind turning vehicles.
D	>35-55	Approaching instability. Delays may be lengthy during short time periods within the peak hour. Vehicles may be required to wait through more than one signal cycle.
E	>55 to 80	At or near capacity with possible long queues for left-turning vehicles. Full utilization of every signal cycle is seldom attained.
F	> 80	Gridlock conditions with stoppages of long duration.

### Analysis of Existing and Future Traffic Conditions

Existing and future traffic volumes have been developed to analyze future traffic conditions after completion of the Project. The Project's traffic effect has been calculated by adding the Project traffic volumes to the existing traffic and future cumulative traffic volume with updated cumulative projects and 2023 study year.

The circulation deficiency evaluation has been calculated at 4 nearby intersections as listed below:

1. 12<sup>th</sup> Street and Hope Street;
2. Hope Street and Pico Boulevard;
3. 12<sup>th</sup> Street and Grand Avenue; and,
4. Grand Avenue and Pico Boulevard.

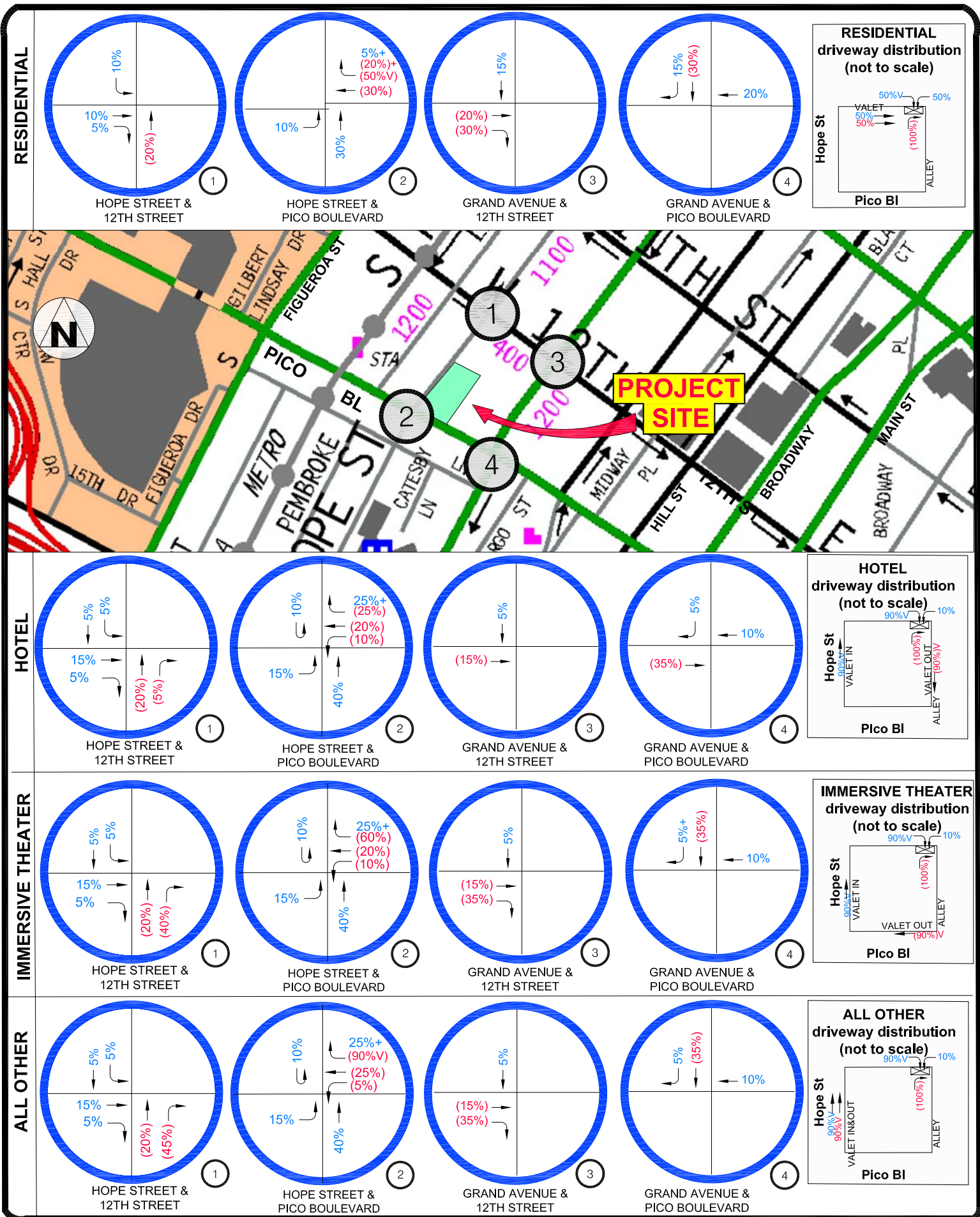


The lane configurations at these intersections are provided in Figure 4. Project trips were distributed to the study intersections and driveways, as approved by LADOT, and are provided in Figure 5. The Project traffic volumes, including valet services, are provided in Figure 6.

The LOS calculations summary on the following pages in Tables 4 and 5 shows the Project's traffic Existing and Future delay with and without the Project at the signalized intersections. In evaluation of the Existing conditions, the addition of Project traffic does not change the LOS at 12<sup>th</sup> Street and Hope Street, Hope Street and Pico Boulevard during the AM Peak Hour, 12<sup>th</sup> Street and Grand Avenue or Grand Avenue and Pico Boulevard. However, the LOS is increased from LOS A to LOS B during the PM Peak Hour at Hope Street and Pico Boulevard. LOS B is considered, as indicated in Table 3 on page 35, to continue stable operating conditions. Table 4 shows that the Existing with Project does not significantly add to any circulation deficiencies in the area. Evaluation of the Future Conditions with the Project in Table 5 indicates the addition of Project traffic does not change the LOS at 12<sup>th</sup> Street and Hope Street, Hope Street and Pico Boulevard during the AM Peak Hour, 12<sup>th</sup> Street and Grand Avenue or Grand Avenue and Pico Boulevard. However, the LOS is increased from LOS C to LOS D during the PM Peak Hour at Hope Street and Pico Boulevard. LOS D is considered, as indicated in Table 3 on page 43, that the intersection is approaching instability but is still within acceptable operating conditions. Table 5 shows that the Future with Project does not significantly add to any circulation deficiencies in the area.

The Level of Service summary calculation results are presented below in Tables 4 for Existing and Existing + Project conditions and Table 5 for Future without and with the Project.





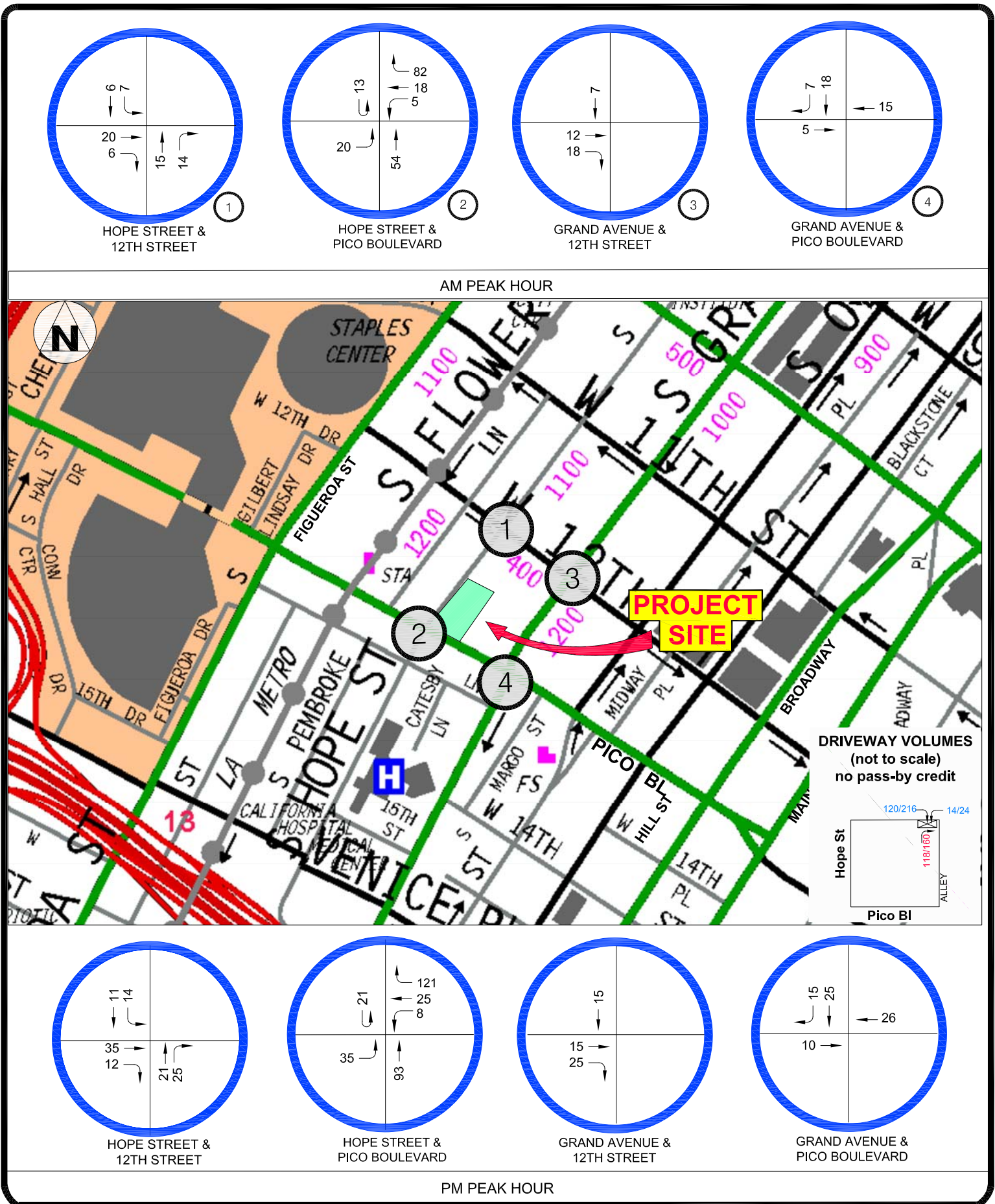
V = VALET TRIPS

FIGURE 5

PROJECT TRIP DISTRIBUTION PERCENTAGES

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**FIGURE 6**

**PROJECT ONLY TRIP VOLUMES  
INCLUDING RESIDENTIAL, COMMERCIAL AND VALET**

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Table 4  
Existing Traffic Conditions  
Without and With Project

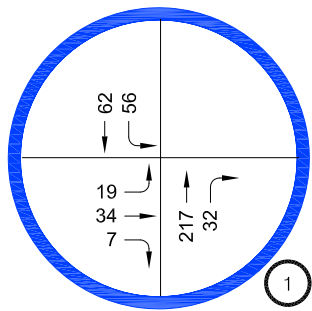
No.	Intersection	Peak Hour	Existing Dec. 2019		Existing +Project	
			Delay (s)	LOS	Delay (s)	LOS
1	12th Street & Hope Street	AM	5.1	A	6.0	A
		PM	9.3	A	9.6	A
2	Hope Street & Pico Boulevard	AM	10.1	B	12.4	B
		PM	9.3	A	15.3	B
3	12th Street & Grand Avenue	AM	20.3	C	20.7	C
		PM	22.8	C	24.0	C
4	Grand Avenue & Pico Boulevard	AM	10.9	B	11.2	B
		PM	14.6	B	14.8	B

s=seconds

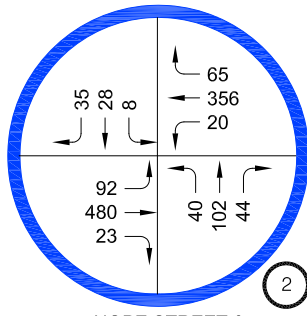
Appendix H contains HCS LOS worksheets.

No Existing or Existing + Project intersection operating deficiencies are identified. As stated previously, the addition of Project related traffic does increase the LOS during the PM Peak Hour at Hope Street and Pico Boulevard. However, the increase is from LOS A delays to LOS B which continues to provide stable traffic operating conditions.

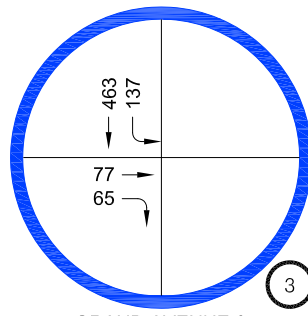
Existing and Existing + Project Traffic Volumes are presented in Figure 7 and Figure 8 respectively.



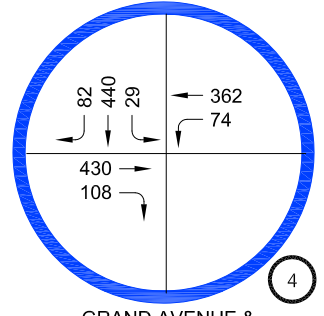
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

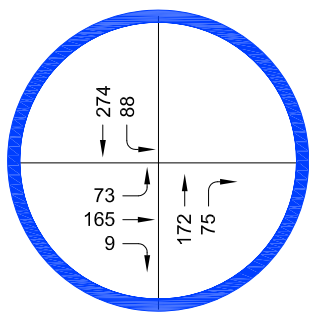
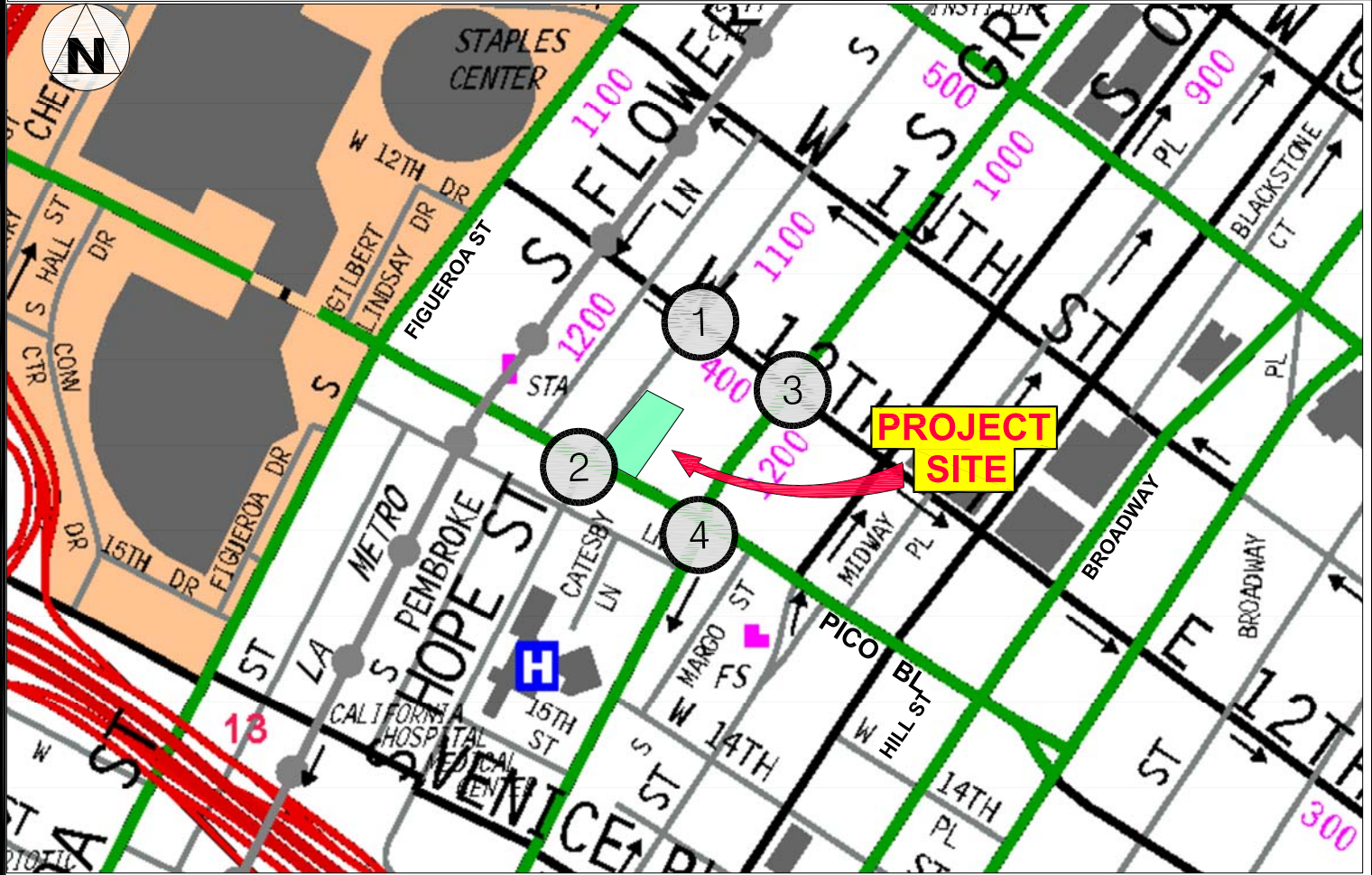


GRAND AVENUE & 12TH STREET

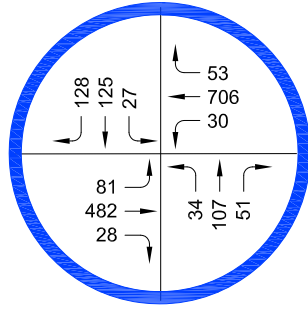


GRAND AVENUE & PICO BOULEVARD

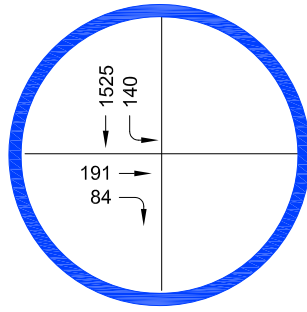
AM PEAK HOUR



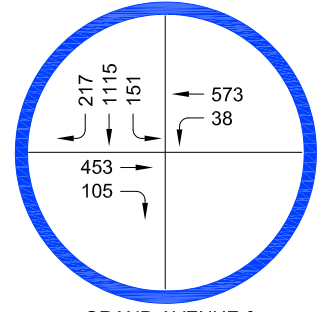
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

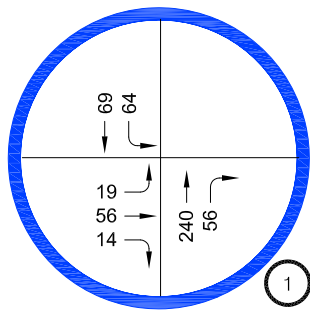
PM PEAK HOUR

FIGURE 7

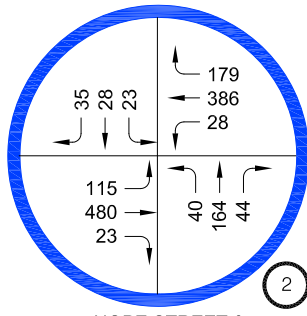
EXISTING (December 2019)  
TRAFFIC VOLUMES

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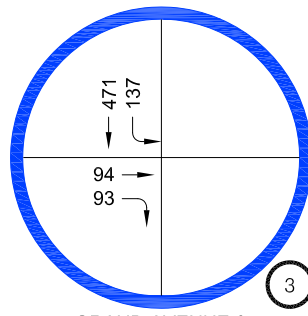
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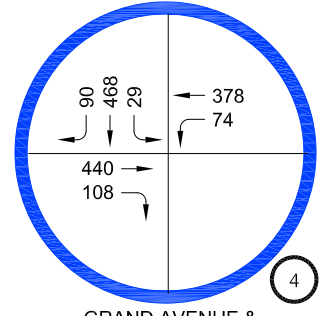
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

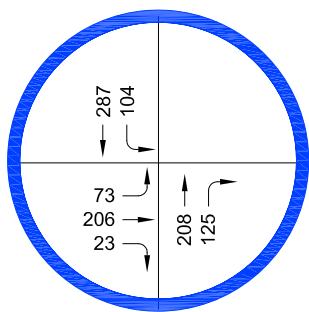
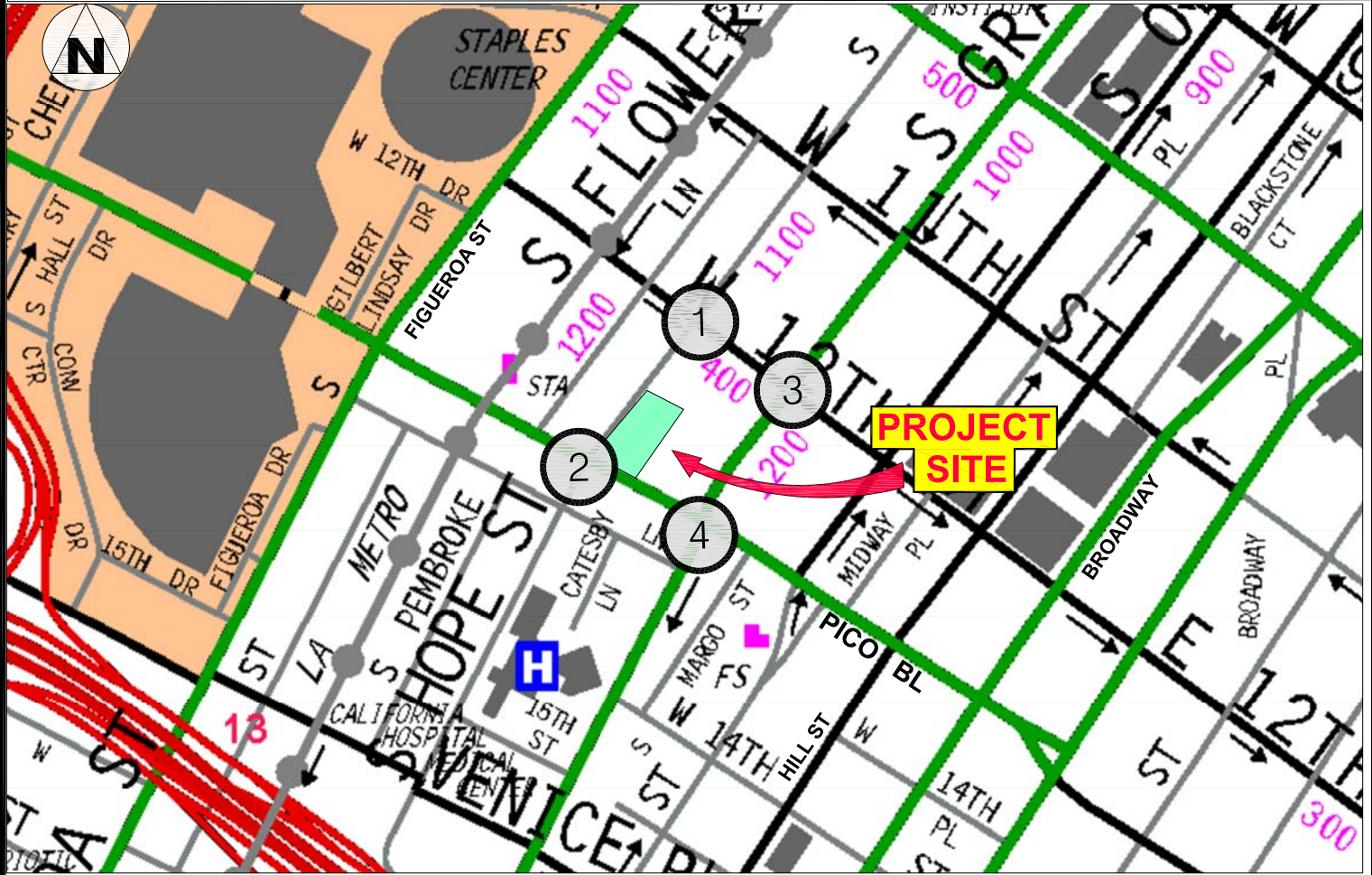


GRAND AVENUE & 12TH STREET

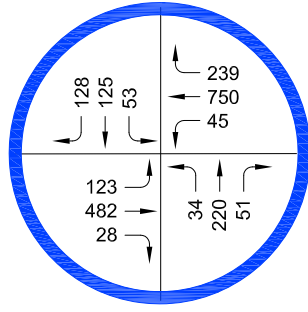


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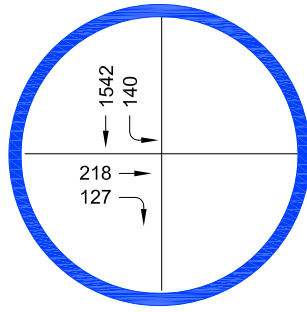
AM PEAK HOUR



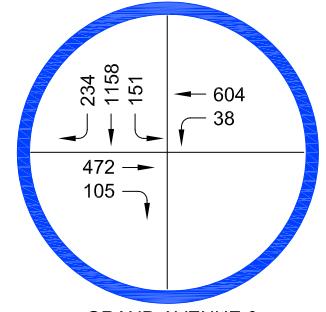
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

FIGURE 8

EXISTING + PROJECT TRAFFIC VOLUMES

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The future cumulative analysis includes ambient growth of 1% per year and vehicle trips created by other foreseeable development projects located within the study area that are either under construction or brought to the attention of the City as planned for future development (related projects). It should be noted that this Project, or any actions taken by the City regarding this Project, does not have a direct bearing on these other proposed projects.

Table 5  
 Future Cumulative Traffic Conditions  
 Without and With Project

No.	Intersection	Peak Hour	Future (2023) + Ambient Growth + Related Projects		Future (2023) + Ambient + Related + Project	
			Delay (s)	LOS	Delay (s)	LOS
			1	12th Street & Hope Street	AM	7.5
		PM	10.2	B	10.8	B
2	Hope Street & Pico Boulevard	AM	21.0	C	22.8	C
		PM	24.8	C	49.7	D
3	12th Street & Grand Avenue	AM	21.0	C	21.2	C
		PM	25.6	C	26.1	C
4	Grand Avenue & Pico Boulevard	AM	11.4	B	11.6	B
		PM	16.3	B	16.8	B

s=seconds

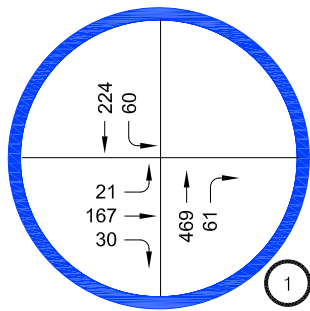
Appendix H contains HCS LOS worksheets.

There is no increase in the LOS and no Future without or with Project whole intersection operating deficiencies are identified at 12<sup>th</sup> Street and Hope Street, 12<sup>th</sup> Street and Grand Avenue or Grand Avenue and Pico Boulevard. As stated previously, the operating conditions at Hope Street and Pico Boulevard are identified in the Future with the Project to increase from LOS C to LOS D during the PM Peak Hour. However, LOS D is still an acceptable condition and no deficiency is identified. Note that the LOS for

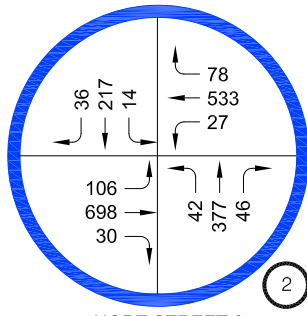


the eastbound left turn traffic movement increases to LOS E with the Project. Consideration was given for installation of an eastbound left turn phase. However, there is not sufficient right-of-way to install a dedicated left turn lane which would necessitate the eastbound and westbound directions to operate separately creating greater overall intersection delay. An evaluation was conducted to operate the eastbound and westbound traffic movements independently without a left turn. This creates poor operating conditions of LOS E or F. Therefore, since the overall intersection operation of LOS D is not considered deficient no changes are being recommended with the Project.

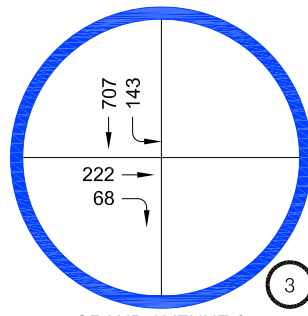
The locations of the related projects and the peak hour trips generated are shown in Appendix G. Appendix H contains the traffic peak hour data and HCS worksheets. Future and Future + Project Traffic Volumes are presented in Figure 9 and Figure 10 respectively.



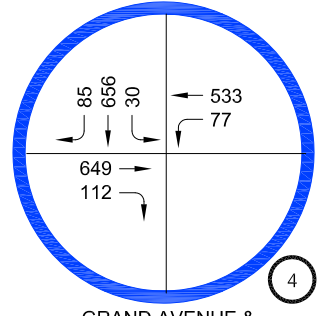
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

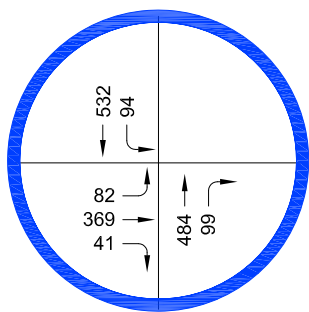
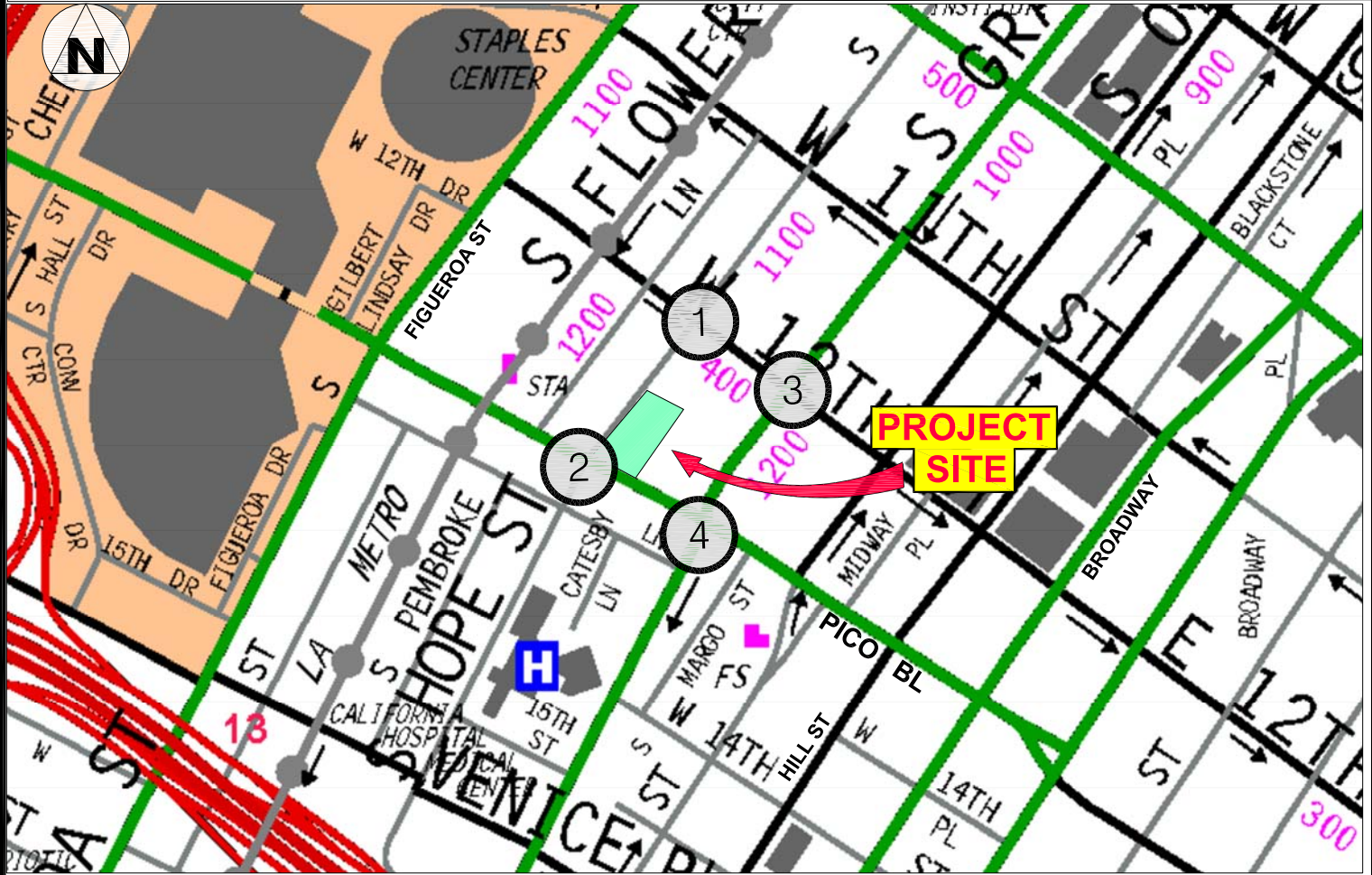


GRAND AVENUE & 12TH STREET

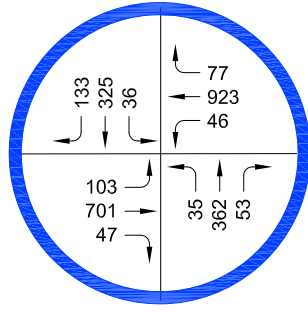


GRAND AVENUE & PICO BOULEVARD

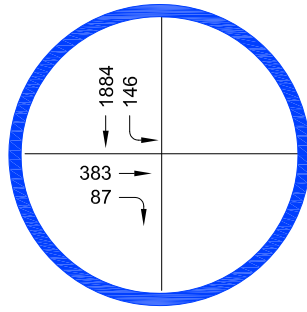
AM PEAK HOUR



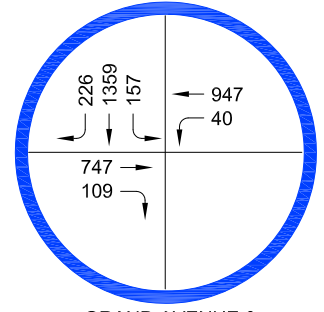
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

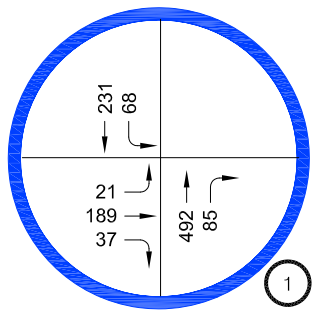
PM PEAK HOUR

FIGURE 9

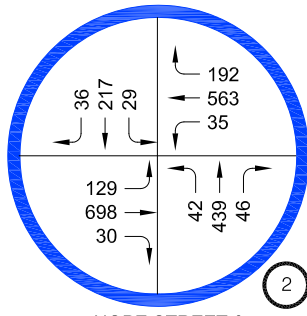
FUTURE WITHOUT PROJECT  
TRAFFIC VOLUMES

Overland Traffic Consultants, Inc.

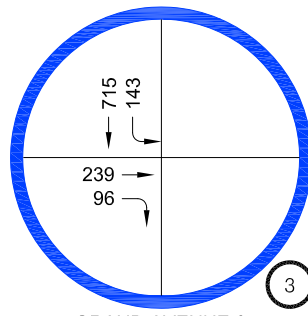
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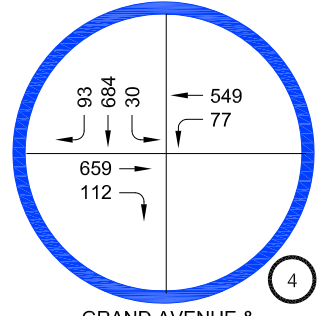
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

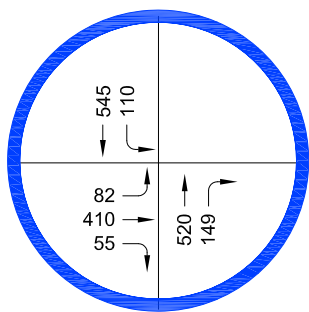
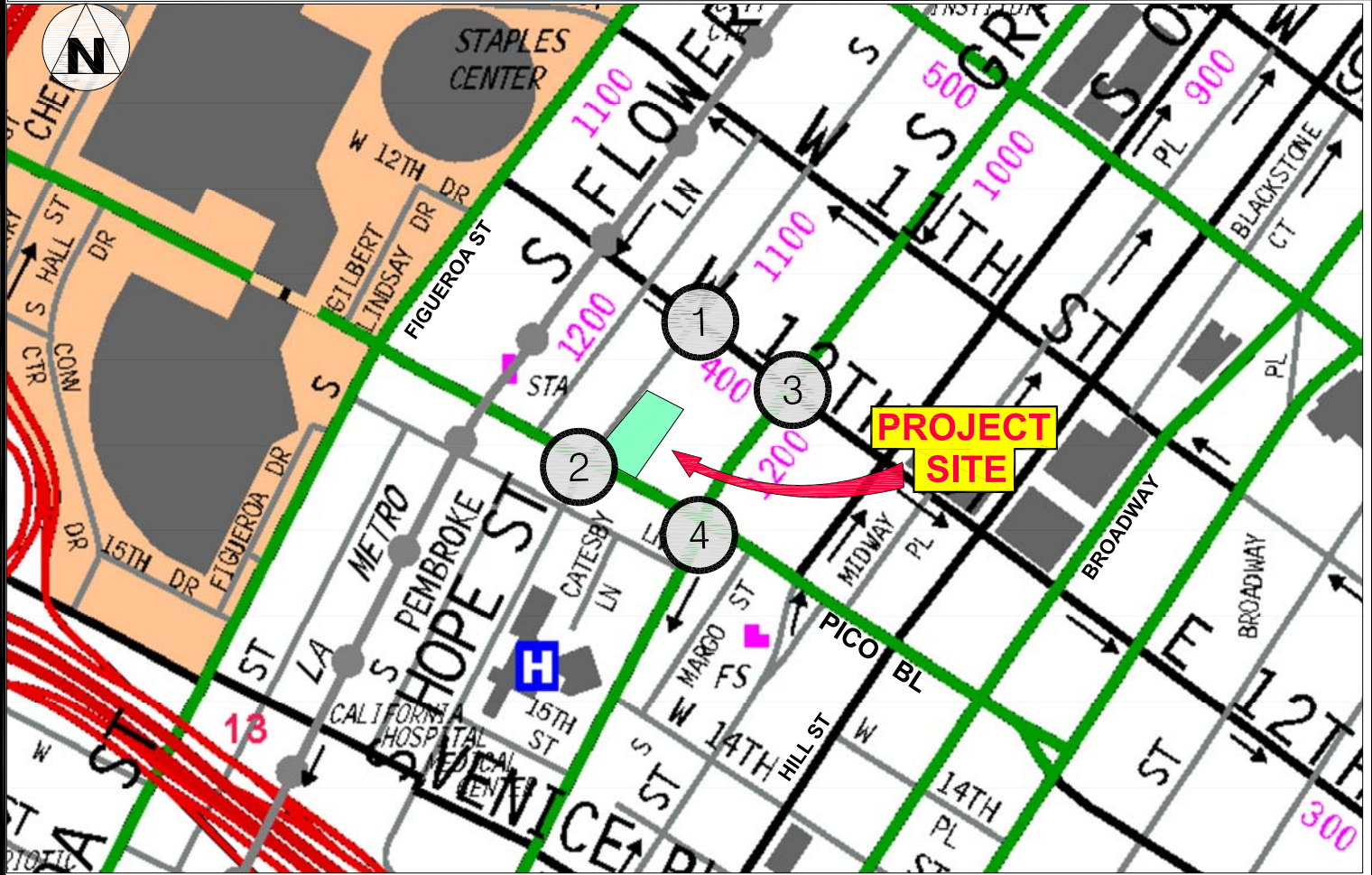


GRAND AVENUE & 12TH STREET

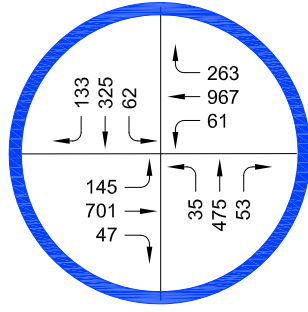


GRAND AVENUE & PICO BOULEVARD

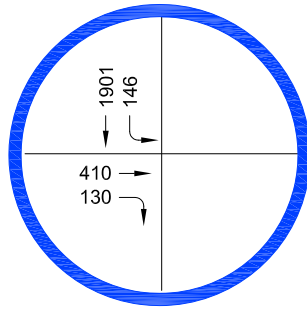
AM PEAK HOUR



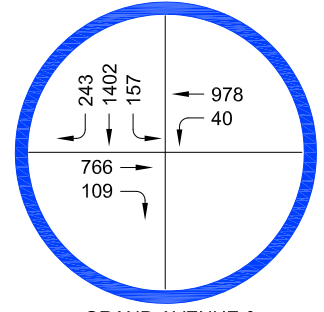
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

FIGURE 10

FUTURE WITH PROJECT TRAFFIC VOLUMES

Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl #100, Manhattan Beach Ca 90266  
(310)545-1235, (661)799-8423, liz@overlandtraffic.com

Driveway Queue Evaluation

Driveway queue evaluation has been conducted using the projected future Project traffic volumes in and out of the Project garage driveway located along the south side of the new Project partially covered driveway between Hope Street and the north-south alley. In addition, driveway queue evaluation has been conducted using the projected future Project traffic volumes in the new partially covered driveway and on Hope Street. HCS analysis with the Project driveway volumes in and out of the garage has been conducted including valet service with the Project traffic. The driveways are forecast to operate well as shown in Table 6.

Table 6  
Future Driveway Conditions With Project

No.	Intersection	Peak Hour	Direction	Future (2023) + Ambient + Related + Project	
				Delay (s)	LOS
A	Project Driveway & Project Covered Driveway	AM	WB	7.6	A
			NB	9.3	A
		PM	WB	7.9	A
			NB	10.1	B
B	Hope Street & Project Covered Driveway	AM	SB	8.2	A
		PM	SB	10.3	B

The HCS analysis also provides the forecasted number of vehicles in the turning lanes at the driveways as shown in Table 7.



Table 7  
Future Queues at the Project Driveways

No.	Intersection	Peak Hour	TYPICAL QUEUE LENGTH	
			DIRECTION	# of Cars
A	Project driveway & Accessway	AM	WBL	0
			NBR	1
		PM	WBL	1
			NBR	1
B	Hope Street & Project Covered Driveway	AM	SBL	0
		PM	SBL	0

WBL = Westbound Left  
 NBR = Northbound Right  
 SBL = Southbound Left

No Project driveway deficiencies have been identified in this analysis.

Summary Findings

Based on the traffic conditions analysis, no Project access and circulation constraints have been identified. The Project’s traffic would not contribute to unacceptable queuing on along the Project driveway extending from Hope Street to the north-south alley.

The results of this evaluation show that the mixed-use Project will not create any non – CEQA traffic deficiencies on the existing streets’ pedestrian, bicycle, and transit facilities or near-by intersections of 12<sup>th</sup> Street and Hope Street, Hope Street and Pico Boulevard, 12<sup>th</sup> Street and Grand Avenue, and Grand Avenue and Pico Boulevard.

Safety Evaluation

Changes to the site access by removing one driveway from Pico Boulevard, removing one driveway on Hope Street, and creating a new driveway along the north side of the Project create a safer environment. Two driveway conflict points are removed with



removal of the driveways. The new driveway is further from the intersection of Pico Boulevard and Hope Street, thereby reducing potential for conflicts or queue backup to the intersection. No conditions or deficiencies are apparent in the site access plans which would be considered significant.

### Passenger Loading Evaluation

All Project parking is located on-site in the parking garages. A valet zone will be created on the south side of the driveway out of the way of through traffic for residents' passenger loading and unloading. During valet off-peak time periods, this zone can be used by ride share services such as Lyft or Uber. If the valet service is active, ride share services can be accommodated on Hope Street approximately 150 feet north of Pico Boulevard where there is an existing loading zone. A valet zone will be provided on the east side of Hope Street between the Project partially covered driveway and Pico Boulevard. This valet zone will be used for drop-off of vehicles for all but the residential uses. Pick up vehicles will occur from valet zones along the west side of the alley south of the new partially covered driveway for the hotel guests, near the intersection of the alley and Pico Boulevard for the Immersive Museum guests, and along the valet zone on the east side of Hope Street where their vehicle was dropped off for the restaurants.

Each of the Project passenger loading zones will have demand that will fluctuate throughout the day. The vehicle queue for vehicles being dropped off and picked up will be managed through scheduling of a sufficient number of valet personnel to accommodate that demand. The four valet zone areas have been designed to separate demand and minimize queueing. If a temporary back-up queue does develop, valet management will have the authority to either move around personnel or shift services to another valet zone that is not in high demand.

The passenger loading zone on Hope Street will be along the public right-of-way. There is a turn in for vehicles without reduction to the sidewalk width. Valet services personnel and persons waiting for vehicles will be positioned on-site behind the sidewalk area. Pedestrians walking along Hope Street will be minimally inconvenienced



with valet personnel assisting door opening and persons entering and exiting vehicles. Valet personnel will be informed to not block any sidewalks and to assist any patrons who inadvertently do so to join them behind the sidewalk.

#### State Facility Evaluation –

The proposed Project is immediately east of the Harbor Freeway (I-110) and north of the Santa Monica Freeway (I-10). These facilities have been evaluated for potential deficiencies.

Based on LADOT, Department of City Planning and Traffic Consultant representatives team collaboration in addition to Caltrans comments from other projects, LADOT provided Interim Guidance for Freeway Safety Analysis on May 1, 2020. This guidance has been prepared to aid in evaluation of State Facilities. The guidelines include 8 steps which include (generally) 1) screening to determine if project trips on the off-ramps exceed 25 peak hour trips, 2) if screening is over 25 project trips on an off ramp, guidance on preparation of a “Future with Project” queuing analysis, 3) process for evaluation of existing and future ramp storage lengths, 4) determination of number of project vehicles that may exceed queue lengths including screening for over two or more vehicles, 5) speed differential evaluation, 6) screening for 30 miles per hour (mph) or more, 7) if more than 30 mph there are recommendations for corrective measures, 8) if the cost of the changes are substantial, contribution guidelines are provided.

For this Project, the following ramps were evaluated:

- I-10 Westbound & I-110 Northbound off ramp to LA Live Way;
- I-10 Westbound off ramp to 17<sup>th</sup> Street at Los Angeles Street;
- I-10 Eastbound off ramp to 18<sup>th</sup> Street west of Grand Avenue; and
- I-110 Southbound off ramp to Blaine Street north of 11<sup>th</sup> Street;

As required by the LADOT screening of the number of project trips (#1 in the process) has been conducted. In full, #1 states:

Identify the number of Project trips expected to be added to nearby off ramps serving the site. If the Project adds 25 or more trips to any off ramp in either the morning or afternoon peak hour, then that ramp should be studied for potential queueing impacts following the steps below. If the project is not expected to generate more than 25 or more peak hour trips at any freeway off ramps, then a freeway ramp analysis is not required.

Project trips were distributed to the nearby off ramps according to the traffic patterns in the area and previously approved distribution. Table 8, on the following page, displays the results of this evaluation.

**Table 8  
Study Off Ramp Distribution and Trips**

#	Location	Peak Hour	Project Trips In	# of Trips	Over 25 Peak Hour Trips?
A	I-10 WB & I-110 NB Freeways Off Ramp to LA Live Way	AM	5%	8	NO
		PM	5%	14	NO
B	I-10 WB Freeway Off Ramp to Los Angeles Street	AM	5%	8	NO
		PM	5%	14	NO
C	I-10 EB Freeway Off Ramp to 18th Street west of Grand Avenue	AM	5%	7	NO
		PM	5%	14	NO
D	I-110 SB Freeway Off Ramp to Blaine Street north of 11th Street	AM	5%	8	NO
		PM	5%	14	NO

As shown in Table 8, fewer than 25 Project trips will be utilizing the nearby off ramps during the peak hours. No further analysis and no deficiencies have been identified at the off ramps.

In addition, the I-110 and I-10 freeway conditions have been evaluated. Existing 2019 without and with the Project, future 2023 without and with the Project (Project buildout year) and Caltrans requested future year 2035 daily and peak hour freeway volumes were determined. The peak hour demand per capacity (D/C) was determined based on the freeway traffic volumes divided by the freeway capacity and a LOS assigned. It was



found that the Project adds growth of 0.2% at most to the existing and future volumes.

Table 8 provides the details of the analysis.

**Table 9  
Freeway Analysis Summary**

**Existing and Existing + Project**

Location	Time Period	Freeway Capacity*	2019 Traffic			Added Project Traffic	Existing 2019 + Project			
			Volume	D/C	LOS		Volume	D/C	LOS	Growth
Harbor Freeway (I-110) at Olympic Boulevard	Daily	20,000	298,682	0.935	E	560	299,242			
	Peak Hour		18,707			47	18,754	0.938	E	0.3%
Harbor Freeway (I-110) at Route 10	Daily	14,000	287,235	0.919	D	560	287,795			
	Peak Hour		18,385			47	18,432	0.922	D	0.3%
Santa Monica Freeway (I-10) at San Pedro Street	Daily	20,000	274,746	1.776	F(3)	560	275,306			
	Peak Hour		35,522			47	35,569	1.778	F(3)	0.2%
Santa Monica Freeway (I-10) at Route I-110	Daily	18,000	265,381	0.860	D	560	265,941			
	Peak Hour		15,474			47	15,521	0.862	D	0.2%

**Future 2023 and Future 2023+ Project**

Location	Time Period	Freeway Capacity*	Future (2023) Without Project			Added Project Traffic	Future (2023) With Project			
			Volume	D/C	LOS		Volume	D/C	LOS	Growth
Harbor Freeway (I-110) at Olympic Boulevard	Daily	20,000	311,824			560	312,384			
	Peak Hour		19,530	0.977	E	47	19,577	0.979	E	0.2%
Harbor Freeway (I-110) at Route 10	Daily	14,000	299,873			560	300,433			
	Peak Hour		19,194	0.960	E	47	19,241	0.962	E	0.2%
Santa Monica Freeway (I-10) at San Pedro Street	Daily	20,000	286,835			560	287,395			
	Peak Hour		37,085	1.854	F(3)	47	37,132	1.857	F(3)	0.3%
Santa Monica Freeway (I-10) at Route I-110	Daily	18,000	277,057			560	277,617			
	Peak Hour		16,155	0.898	D	47	16,202	0.900	D	0.2%

Future 2035 and Future 2035+ Project

Location	Time Period	Freeway Capacity*	Future (2035) Without Project			Added Project Traffic	Future (2035) With Project			
			Volume	D/C	LOS		Volume	D/C	LOS	Growth
Harbor Freeway (I-110) at Olympic Boulevard	Daily	20,000	349,243			560	349,803			
	Peak Hour		21,874	1.094	F(0)	47	21,921	1.096	F(0)	0.2%
Harbor Freeway (I-110) at Route 10	Daily	14,000	335,858			560	336,418			
	Peak Hour		21,497	1.075	F(0)	47	21,544	1.077	F(0)	0.2%
Santa Monica Freeway (I-10) at San Pedro Street	Daily	20,000	321,255			560	321,815			
	Peak Hour		41,535	2.077	F(3)	47	41,582	2.079	F(3)	0.2%
Santa Monica Freeway (I-10) at Route I-110	Daily	18,000	310,304			560	310,864			
	Peak Hour		18,094	1.005	F(0)	47	18,141	1.008	F(0)	0.3%

D/C		D/C	
LOS	RATIO	LOS	RATIO
A	0.00 - 0.35	F(0)	>1.00 - 1.25
B	>0.35 - 0.64	F(1)	>1.25 - 1.35
C	>0.64 - 0.77	F(2)	>1.35 - 1.45
D	>0.77 - 0.93	F(3)	>1.45
E	>0.93 - 1.00		

The proposed Project adds less than 1% traffic growth to the I-110 and I-10 freeways. No State Facility deficiency is created by the proposed Project.

**PROJECT CONSTRUCTION**

Purpose – Project Construction addresses activities associated with project construction and major in-street construction of infrastructure projects.

Criteria – Per the TAG, the Transportation Assessment should include an evaluation of whether construction of a project would substantially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. Factors to be considered are the location of the project site, the functional classification of the adjacent street, the availability of alternative routes or additional capacity, temporary loss of bicycle parking, temporary loss of bus tops or rerouting of transit lines, the



duration of temporary loss of access, the affected land uses, and the magnitude of the temporary construction activities.

Evaluation – As part of the Project’s construction, a Construction Traffic Management program would be implemented during the construction phase to minimize potential conflicts associated with construction activity. The Project’s potential construction impacts may involve temporary construction activities within Hope Street or Pico Boulevard that would cause lane or street closures and a temporary loss of on-street parking. However, efforts will be made to conduct as much of the construction activity on-site as possible.

Construction workers are typically expected to arrive at the Project site before 7:00 am and depart before or after the weekday peak hours of 4:00 to 6:00 pm. It is also assumed that truck hauling will be limited to off peak hours. As part of the Project’s required Construction Management plan, peak hour restrictions on construction worker and haul truck traffic will likely be imposed. Thus, no significant levels of construction worker and / or truck traffic should occur on the street system during the peak hours of traffic.

Temporary traffic impacts from construction may occur during the non-peak hours because of an increase in construction traffic associated with delivery of construction materials and automobile traffic associated with construction workers, utility changes, drainage facilities, and sewer improvements.

Safe pedestrian, cycling and transit access circulation paths adjacent to or around the work areas will be provided by covered pedestrian walkways, rerouting of bike paths, and transit using cones or signage, if necessary. These elements will be maintained as required by a City-approved Construction Management and Work Area Traffic Control Plans.

During demolition, truck traffic would be coming to and going from the Project site throughout the day (except for peak hours), with truck staging occurring on-site through most of the construction period. Temporary detours around the construction site are expected; however, flagmen would be used to control traffic movement during the ingress and egress of trucks and heavy equipment.



The Project applicant will be required to submit formal Work Area Traffic Control Plans for review and approval by the City prior to the issuance of any construction permits.

## RESIDENTIAL STREET CUT-THROUGH ANALYSIS

Cut-through trips are defined by the TAG as those which feature travel along a street classified as a Local Street in the City's General Plan, with residential land-use frontage, as an alternative to a higher classification street segment (e.g., Collector, Avenue, or Boulevard as designated in the City's General Plan) to access a destination that is not within the neighborhood within which the Local Street is located.

Due to the Project's location in downtown Los Angeles, there are no such residential street segments that could be used for cut-through trips as a viable alternative route. A residential cut-through analysis is not required.



**APPENDIX A**

**LADOT Approved MOU**



## 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: The Morrison

Project Address: 1246 S. Hope Street, NE corner of Hope St & Pico Bl

Project Description: 135 units of high rise residential, 450 hotel rooms, 1,825 sf retail, 7,466 sf high turnover restaurant, 6,600 sf quality restaurant, 26,797 sf rooftop & lobby restaurant/lounge

LADOT Project Case Number: CEN 18-45368 Project Site Plan attached? (Required)  Yes  No

### II. TRIP GENERATION

Geographic Distribution: N 30 % S 15 % E 25 % W 30 %

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

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

Trip Generation Adjustment (Exact amount of credit subject to approval by LADOT)	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Existing Active Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Internal Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	<u>145</u>	<u>129</u>	<u>274</u>
PM Trips	<u>325</u>	<u>226</u>	<u>551</u>

### III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient Growth Rate: 1 % Per Yr.

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

Map of Study Intersections/Segments attached?  Yes  No

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

- |                                           |                                            |
|-------------------------------------------|--------------------------------------------|
| 1 <u>Hope Street &amp; 12th Street</u>    | 3 <u>Grand Avenue &amp; 12th Street</u>    |
| 2 <u>Hope Street &amp; Pico Boulevard</u> | 4 <u>Grand Avenue &amp; Pico Boulevard</u> |

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

Access Count

- N-S Alley extending from Pico to 12th Street
- E-W access way extending from Hope Street to N-S Alley

**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

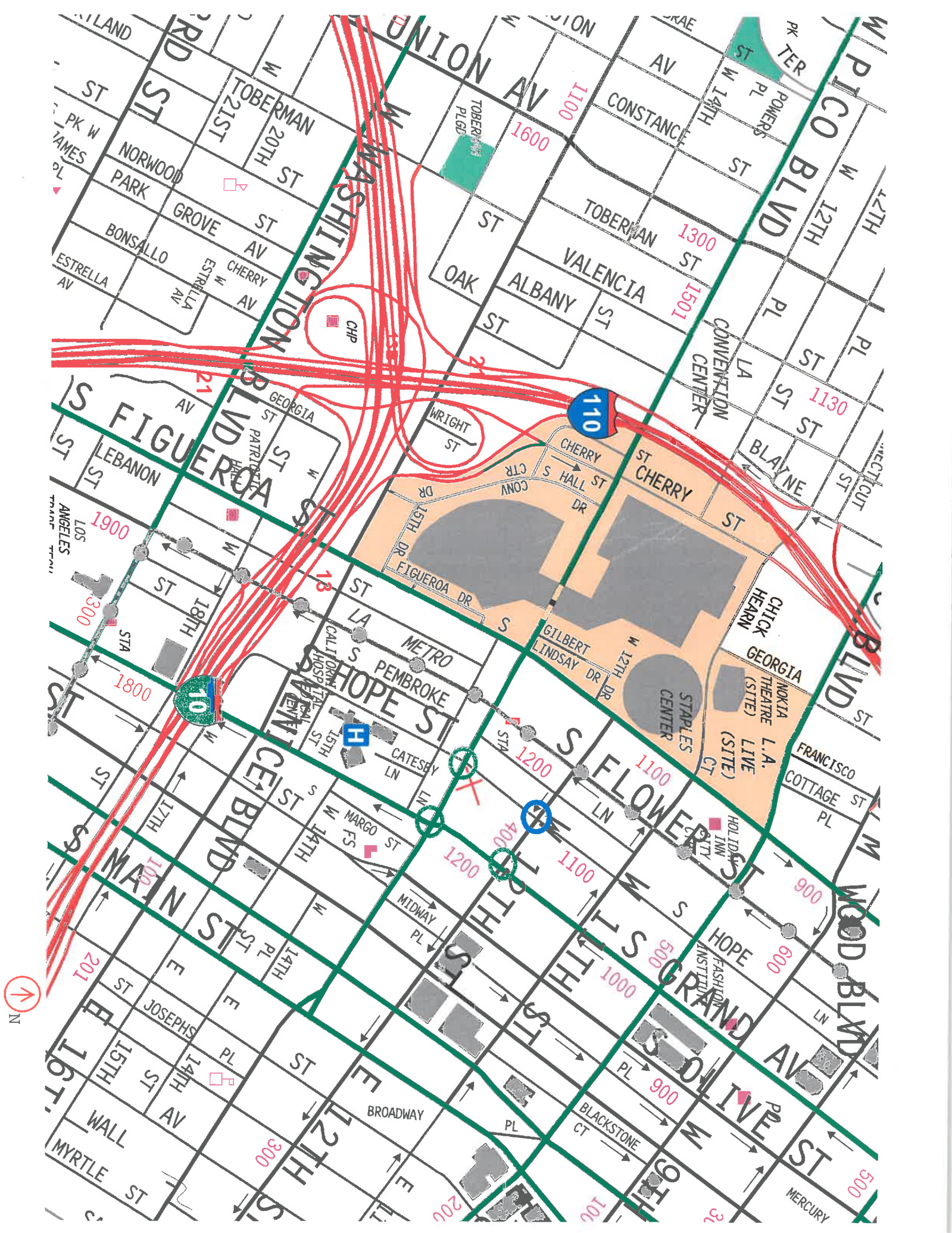
Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan?  Yes  No

**V. CONTACT INFORMATION**

	<u>CONSULTANT</u>	<u>DEVELOPER</u>
Name:	<u>Liz Fleming-Overland Traffic</u>	<u>Sheppard Mullin</u>
Address:	<u>952 Manhattan Bch Bl, #100, M.B.</u>	<u>333 S Hope St, 43rd Floor</u>
Phone Number:	<u>310 545-1235</u>	<u>Los Angeles, CA 90071</u>
E-Mail:	<u>liz@overlandtraffic.com</u>	<u>Mr. Alfred Fraijo Jr.</u>

Approved by:	 Consultant's Representative	11-12-19	x	 LADOT Representative	12-13-19	*Date
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\*MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.



**10th Edition ITE Manual Trip Rates**

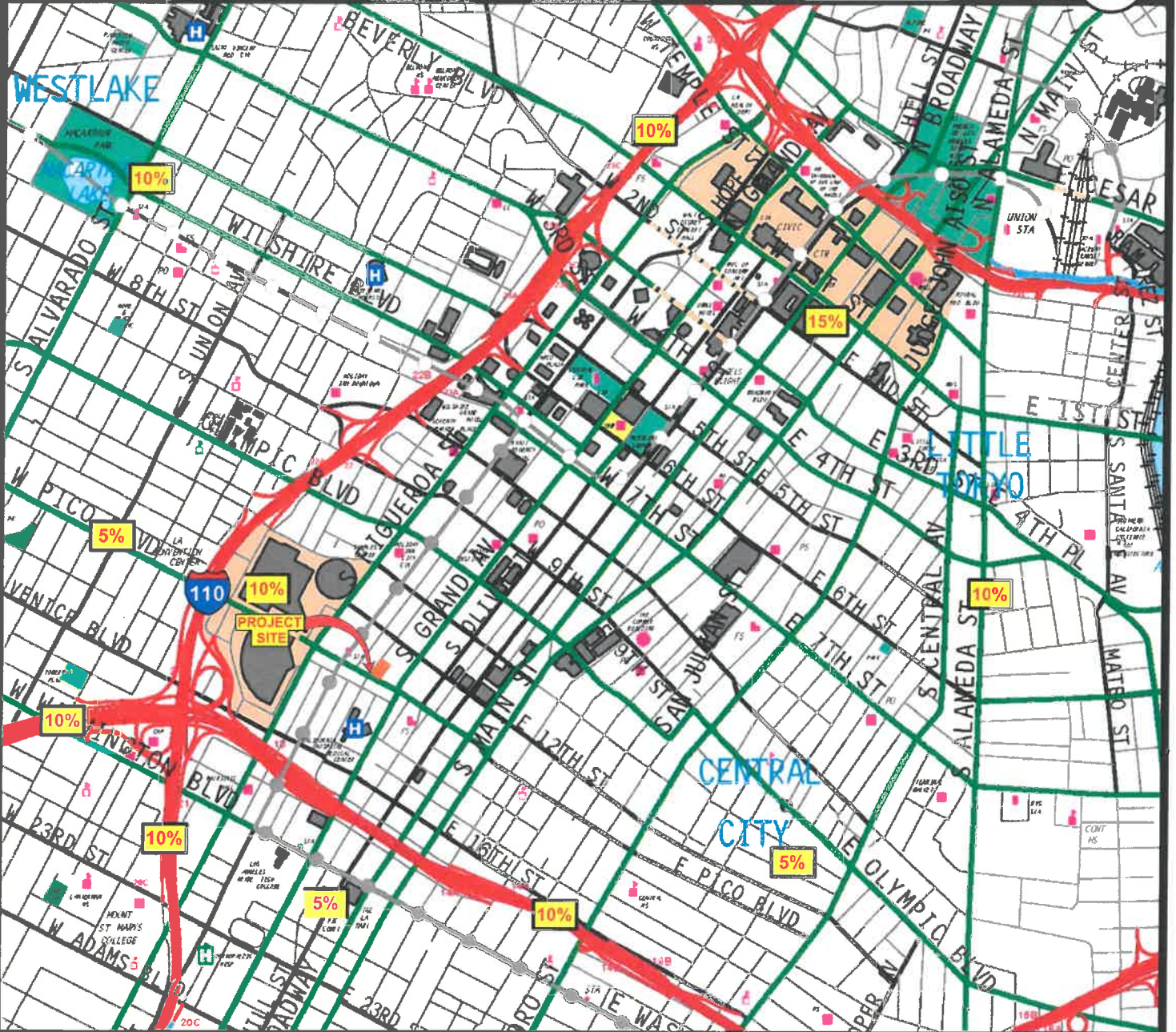
Description	ITE CODE	Daily Traffic	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
High Rise Residential	222	4.45	0.31	24%	76%	0.36	61%	39%
Hotel	310	8.36	0.47	59%	41%	0.60	51%	49%
Retail	820	37.75	0.94	62%	38%	3.81	48%	52%
Drinking Place*	925	56.80	negligible			11.36	66%	34%
Quality Restaurant	931	83.84	0.73	55%	45%	7.80	67%	33%
High Turnover Restaurant	932	112.18	9.94	55%	45%	9.77	60%	40%

Rate per unit for apartment & condo, per room for hotel and per 1,000 sf all other

\* no daily or AM Peak Hour rates, Daily estimated as 5X PM Peak and AM Peak negligible

**Project Trip Generation**

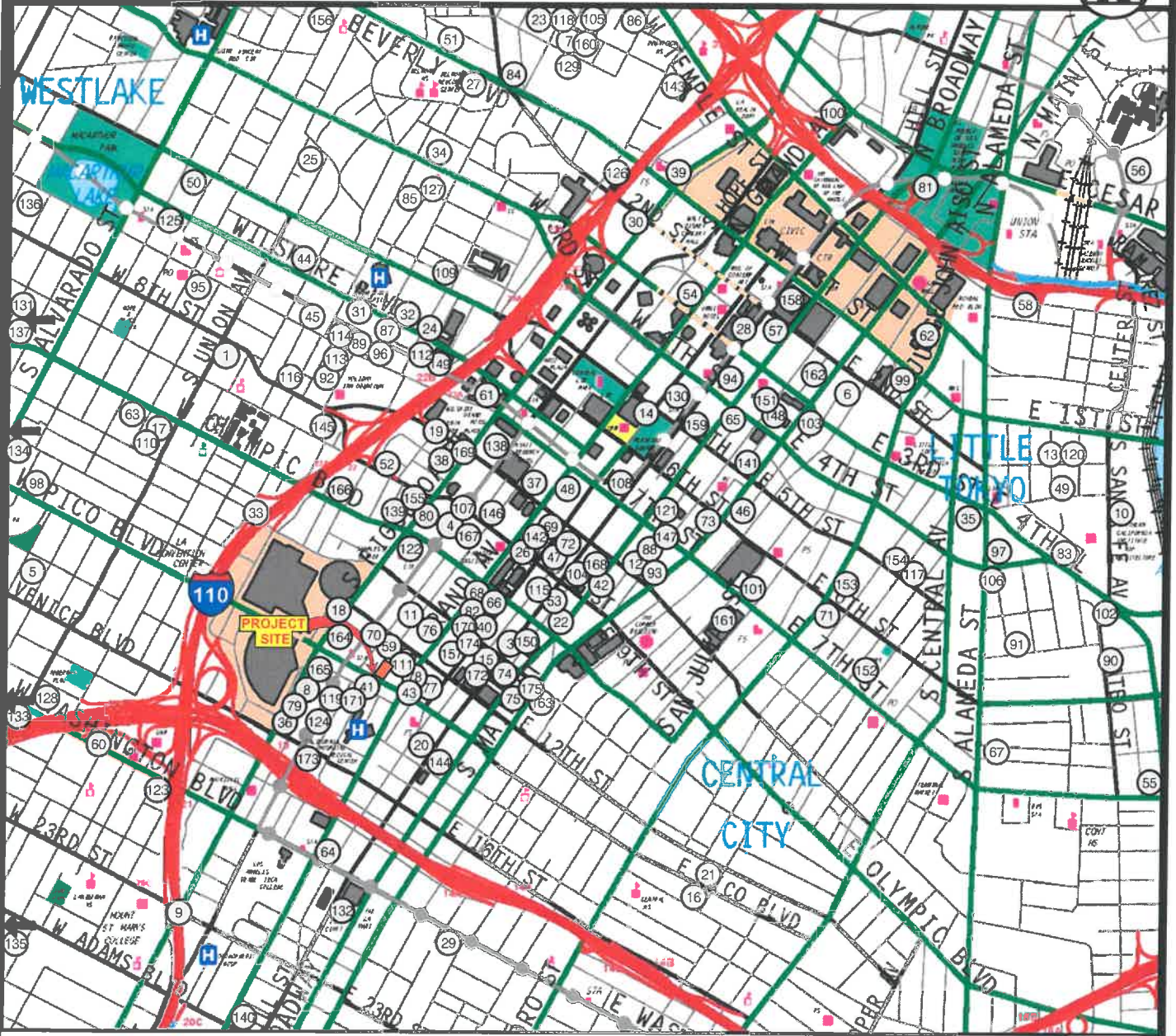
ITE Code	Description	Size	Daily Traffic	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
<b>Proposed Project</b>									
222	High Rise Residential	135 units	601	42	10	32	49	30	19
	Transit Trips	15%	(90)	(6)	(2)	(4)	(7)	(4)	(3)
	Subtotal Residential		511	36	8	28	42	26	16
310	Hotel	450 rooms	3,762	212	125	87	270	138	132
	Transit Trips	15%	(564)	(32)	(19)	(13)	(41)	(21)	(20)
	Subtotal Hotel		3,198	180	106	74	229	117	112
820	Retail	1,825 sf	69	2	1	1	7	3	4
	Internal Trips	20%	(14)	(0)	(0)	(0)	(1)	(1)	(1)
	Transit Trips	15%	(8)	(0)	(0)	(0)	(1)	(0)	(0)
	Pass-by Trips	50%	(23)	(1)	(1)	(0)	(2)	(1)	(1)
	Subtotal Retail		23	1	(0)	1	3	1	2
932	High Turnover Restaurant	7,466 sf	838	74	41	33	73	44	29
	Internal Trips	20%	(168)	(15)	(8)	(7)	(15)	(9)	(6)
	Transit Trips	15%	(101)	(9)	(5)	(4)	(9)	(5)	(4)
	Pass-by Trips	20%	(114)	(10)	(6)	(4)	(10)	(6)	(4)
	Subtotal Highturnover Restaurant		455	40	22	18	39	24	15
931	Quality Restaurant	6,600 sf	553	5	3	2	51	34	17
	Internal Trips	20%	(111)	(1)	(1)	(0)	(10)	(7)	(3)
	Transit Trips	15%	(66)	(1)	(1)	(0)	(6)	(4)	(2)
	Pass-by Trips	10%	(38)	(0)	(0)	(0)	(3)	(2)	(1)
	Subtotal Quality Restaurant		338	3	1	2	32	21	11
931/925	Rooftop & Lobby Restaurant/Lounge*	26,797 sf	2,247	20	11	9	304	201	103
	Internal Trips	20%	(449)	(4)	(2)	(2)	(61)	(40)	(21)
	Transit Trips	15%	(270)	(2)	(1)	(1)	(37)	(25)	(12)
	Subtotal Rooftop Restr/Bar		1,528	14	8	6	206	136	70
<b>TOTAL PROPOSED</b>			<b>6,053</b>	<b>274</b>	<b>145</b>	<b>129</b>	<b>551</b>	<b>325</b>	<b>226</b>



1/2017

**OVERALL PROJECT DESCRIPTION**

 **Overland Traffic Consultants, Inc.**  
 952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
 (310) 545-1235, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)



11-2019

**RELATED PROJECT LOCATION MAP**

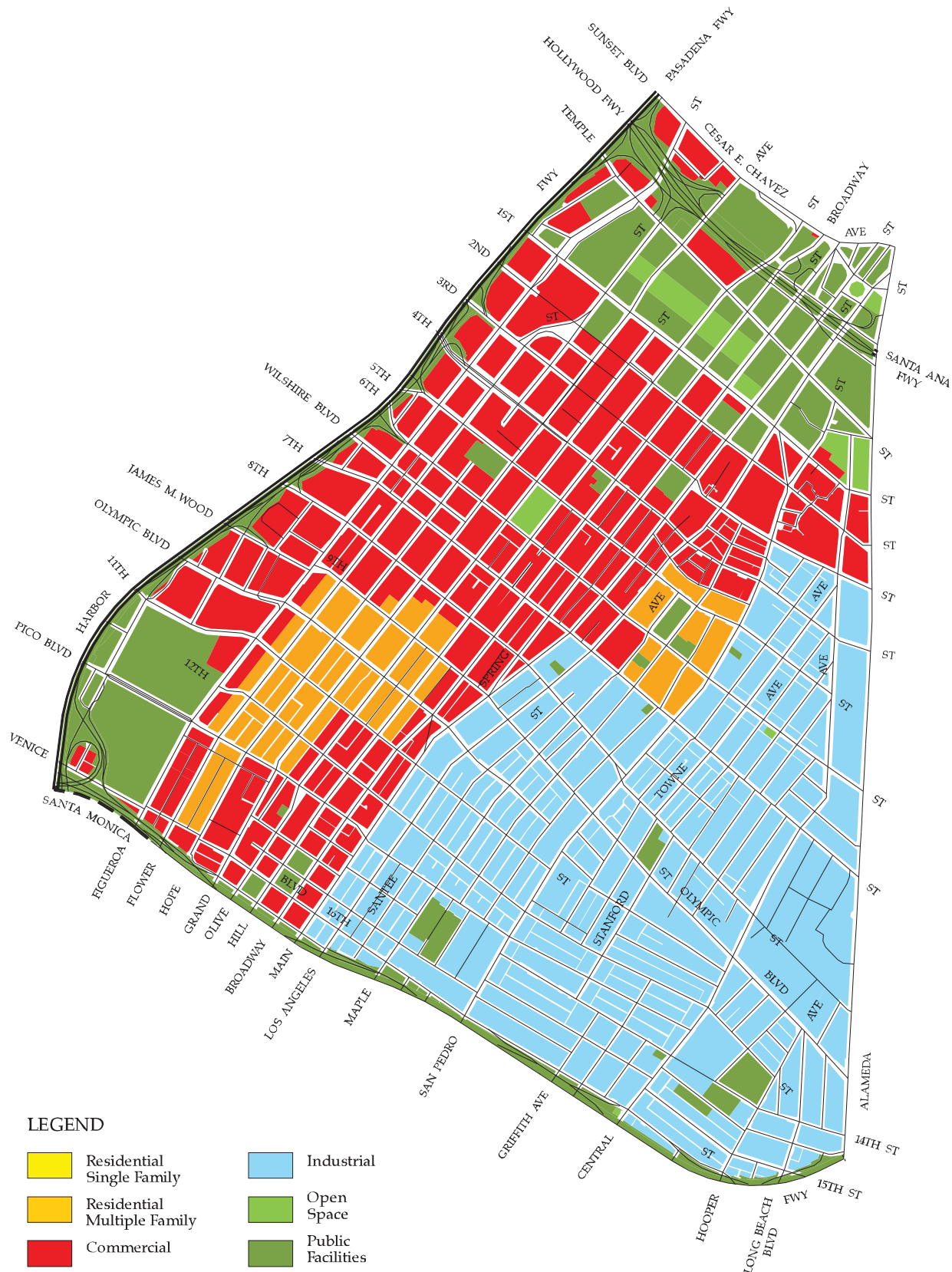
 **Overland Traffic Consultants, Inc.**

952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
(310) 545-1235, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)







**APPENDIX B**

**COMMUNITY PLAN LAND USE MAPS**





**LEGEND**

- |                                                                                                                 |                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|  Residential Single Family   |  Industrial        |
|  Residential Multiple Family |  Open Space        |
|  Commercial                  |  Public Facilities |

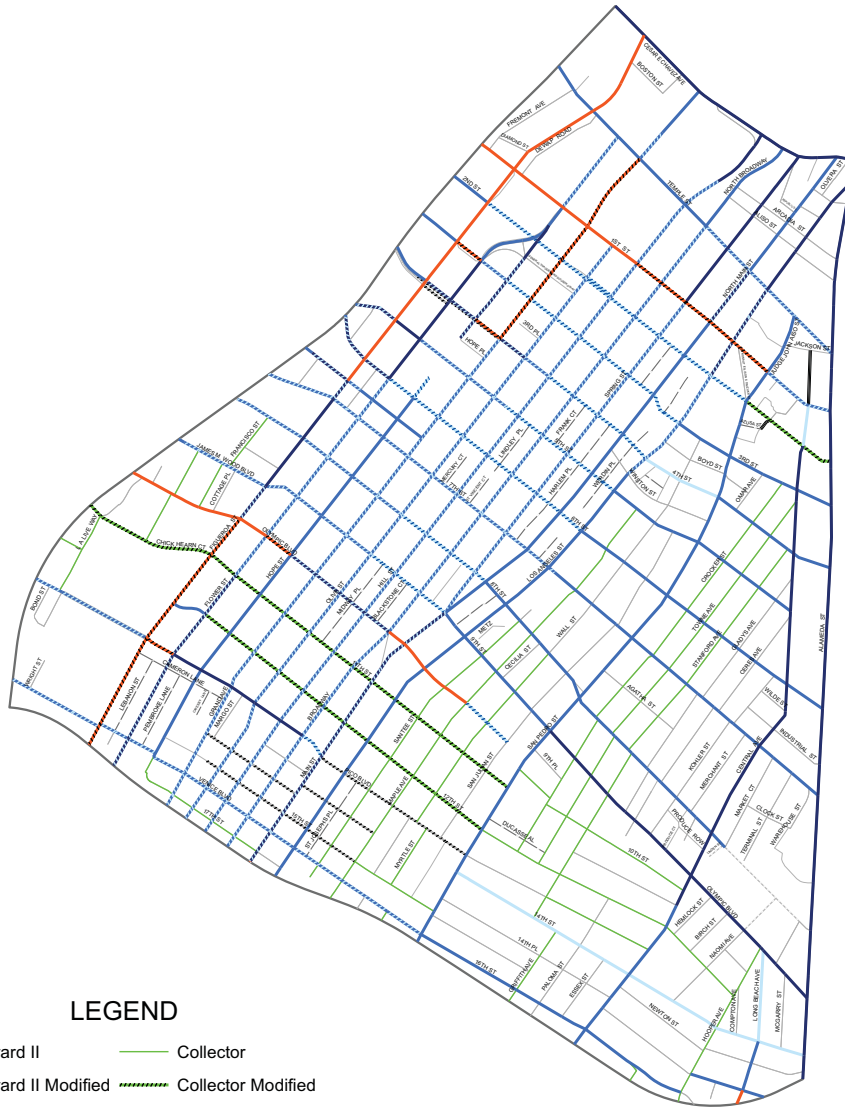
**GENERALIZED LAND USE  
CENTRAL CITY**



**APPENDIX C**

**CIRCULATION MAP, STREET STANDARDS,  
MAP OF POTENTIAL PEDESTRIAN DESTINATIONS  
AND INTERSECTION AERIAL VIEWS**

# CENTRAL CITY CIRCULATION



## LEGEND

- |  |                       |  |                              |
|--|-----------------------|--|------------------------------|
|  | Boulevard II          |  | Collector                    |
|  | Boulevard II Modified |  | Collector Modified           |
|  | Avenue I              |  | Local                        |
|  | Avenue I Modified     |  | Local Modified               |
|  | Avenue II             |  | Pedestrian Walk / Stairway   |
|  | Avenue II Modified    |  | Private Street               |
|  | Avenue III            |  | Alley                        |
|  | Avenue III Modified   |  | Community Plan Area Boundary |

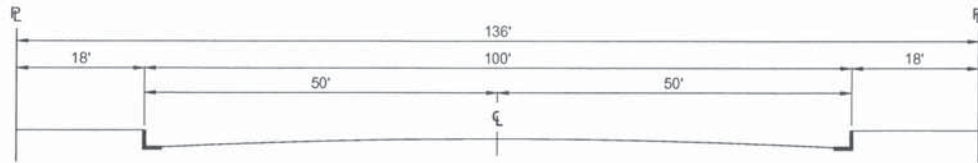


Date: 2/1/2017  
DEPARTMENT OF CITY PLANNING  
INFORMATION TECHNOLOGIES DIVISION

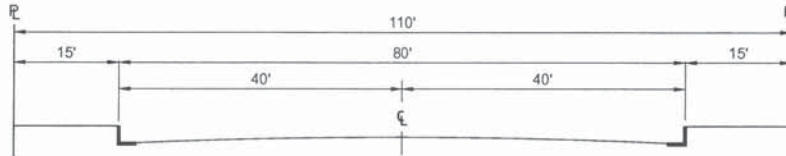
**Disclaimer:**  
The City of Los Angeles is neither responsible nor liable for any inaccuracies, errors or omissions with respect to the material contained on this map. This map and all materials contained on it are distributed and transmitted "as is" without warranties of any kind, either express or implied, including without limitations, warranties of title or implied warranties of merchantability or fitness for a particular purpose. The City of Los Angeles is not responsible for any special, indirect, incidental, or consequential damages that may arise from the use of, or the inability to use, the map and/or the materials contained on the map whether the materials contained on the map are provided by the City of Los Angeles, or a third party.



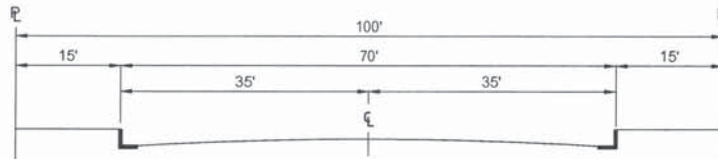
## ARTERIAL STREETS



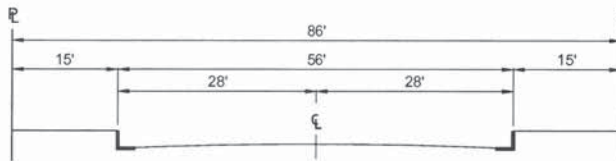
**BOULEVARD I (MAJOR HIGHWAY CLASS I)**



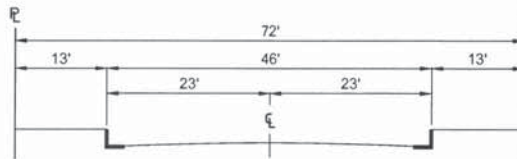
**BOULEVARD II (MAJOR HIGHWAY CLASS II)**



**AVENUE I (SECONDARY HIGHWAY)**



**AVENUE II (SECONDARY HIGHWAY)**

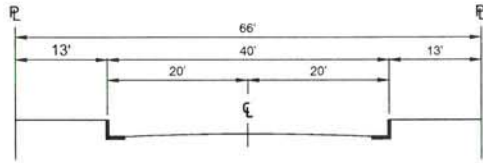


**AVENUE III (SECONDARY HIGHWAY)**

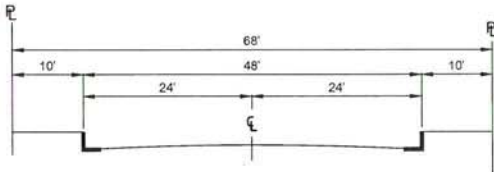
THIS STANDARD PLAN BECOMES EFFECTIVE CONCURRENT WITH THE ADOPTION OF THE MOBILITY PLAN 2035.

BUREAU OF ENGINEERING		DEPARTMENT OF PUBLIC WORKS		CITY OF LOS ANGELES	
<b>--- DRAFT --- STANDARD STREET DIMENSIONS</b>				<b>STANDARD PLAN S-470-1</b>	
PREPARED  HAMID MADANI, P.E. BUREAU OF ENGINEERING	SUBMITTED  SAMARA AL-AHMAD, P.E.    DATE ENGINEER OF DESIGN BUREAU OF ENGINEERING	APPROVED  GARY LEE MOORE, P.E., ENV. SP.    DATE CITY ENGINEER		SUPERSEDES  D-22549 S-470-0	REFERENCES
CHECKED  RAFFI MASSABKI, P.E. BUREAU OF ENGINEERING	KENNETH REDD, P.E.    DATE DEPUTY CITY ENGINEER	DEPARTMENT OF TRANSPORTATION    DATE GENERAL MANAGER		VAULT INDEX NUMBER:	SHEET 1 OF 4 SHEETS

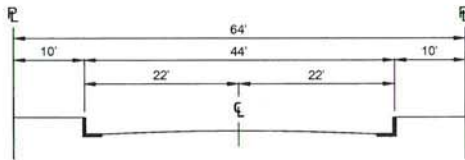
NON-ARTERIAL STREETS



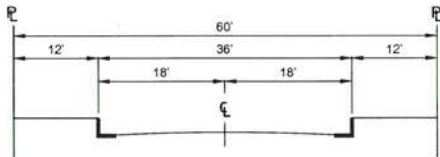
COLLECTOR STREET



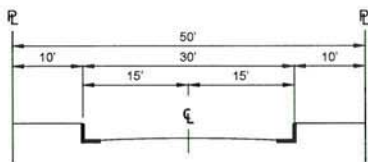
INDUSTRIAL COLLECTOR STREET



INDUSTRIAL LOCAL STREET

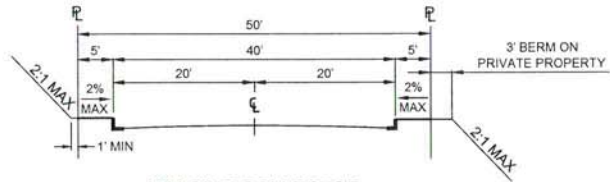


LOCAL STREET - STANDARD

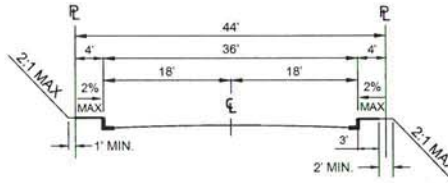


LOCAL STREET - LIMITED

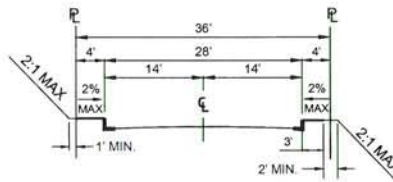
HILLSIDE STREETS



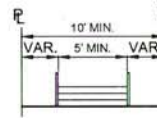
HILLSIDE COLLECTOR



HILLSIDE LOCAL



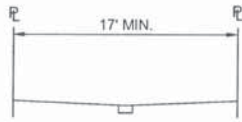
HILLSIDE LIMITED STANDARD



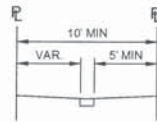
PUBLIC STAIRWAY

CONSTRUCTED IN ACCORDANCE WITH  
BUREAU OF ENGINEERING STANDARD PLANS

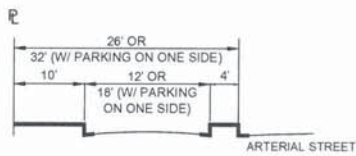
**OTHER PUBLIC RIGHTS-OF-WAY**



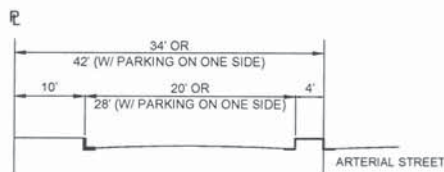
**SHARED STREET**



**PEDESTRIAN WALKWAY**

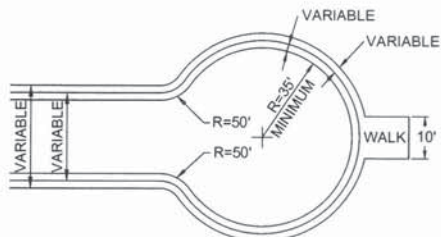


**ONE-WAY SERVICE ROAD**



**BI-DIRECTIONAL SERVICE ROAD**

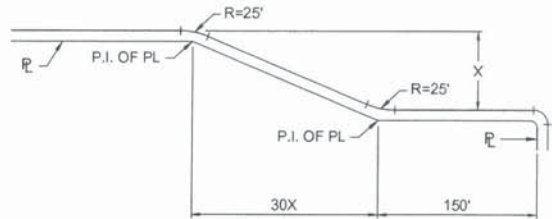
**CUL-DE-SAC**



**MAY BE UNSYMMETRICAL  
(PLAN VIEW)**

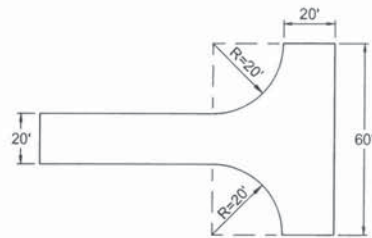
NOTE: FOR FIRE TRUCK CLEARANCE, NO OBSTRUCTION TALLER THAN 6" SHALL BE PERMITTED WITHIN 3FT. OF THE CURB. ON-STREET PARKING SHALL BE PROHIBITED.

**TRANSITIONAL EXTENSIONS**

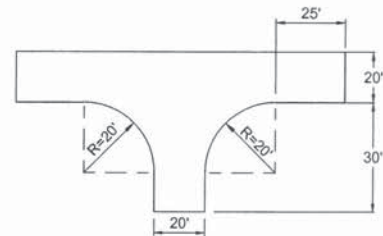


**STANDARD FLARE SECTION  
(PLAN VIEW)**

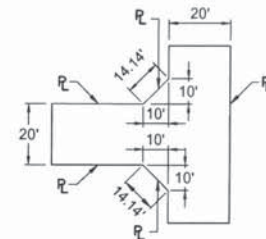
**ALLEYS**



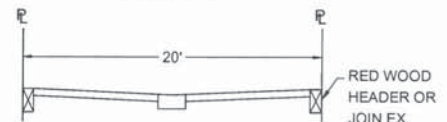
**STANDARD TURNING AREA  
(PLAN VIEW)**



**MINIMUM TURNING AREA  
(PLAN VIEW)**



**STANDARD CUT CORNERS  
FOR 90° INTERSECTION  
(PLAN VIEW)**

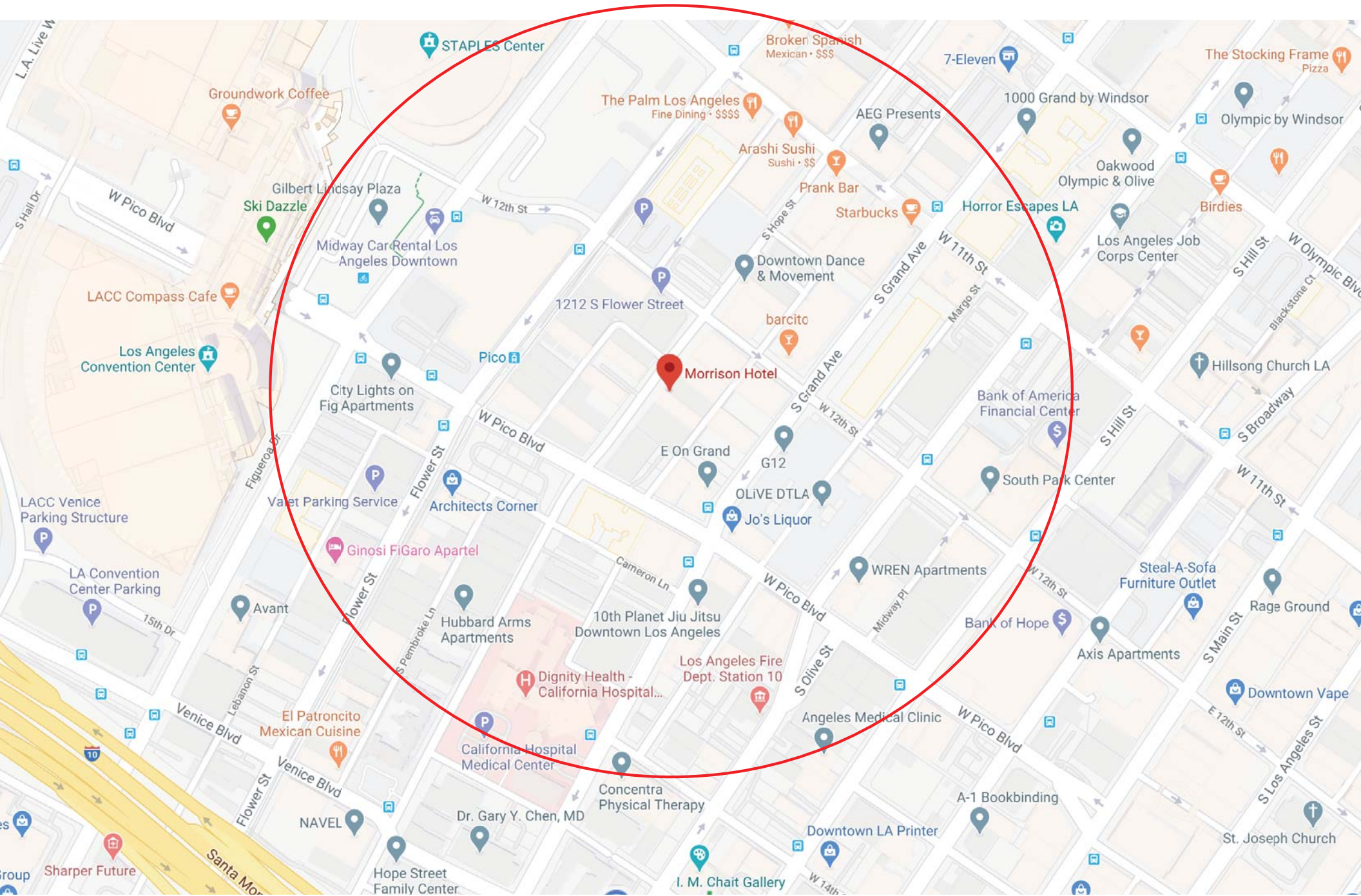


**STANDARD CROSS-SECTION  
(PLAN VIEW)**

**NOTES**

1. CITY COUNCIL MAY, BY ORDINANCE, ADOPT SPECIFIC STANDARDS FOR INDIVIDUAL STREETS THAT DIFFER FROM THESE OFFICIAL STANDARD STREET DIMENSIONS. COMMUNITY PLANS AND SPECIFIC PLANS SHOULD BE REVIEWED FOR FOOTNOTES, INSTRUCTIONS AND/OR MODIFIED STREET DIMENSIONS THAT WOULD REQUIRE STANDARDS DIFFERENT THAN THOSE INDICATED ON THIS STANDARD PLAN.
2. FOR ADDITIONAL GUIDANCE AS TO THE USE OF THE ROADWAY AND SIDEWALK AREA, PLEASE REFER TO THE COMPLETE STREET DESIGN GUIDE AND MANUALS.
3. FOR DISCRETIONARY PROJECTS REQUIRING ACTION FROM THE DEPARTMENT OF CITY PLANNING (PLANNING), PLANNING MAY INCLUDE SPECIFIC INFORMATION AS TO THE DESIGN AND UTILIZATION OF THE SIDEWALK AREA.
4. WHERE A DESIGNATED ARTERIAL CROSSES ANOTHER DESIGNATED ARTERIAL STREET AND THEN CHANGES IN DESIGNATION TO A STREET OF LESSER STANDARD WIDTH, THE ARTERIAL SHALL BE TAPERED IN A STANDARD FLARE SECTION ON BOTH SIDES, AS ON SHEET 3, TO MEET THE WIDTH OF LESSER DESIGNATION AND PROVIDE AN ORDERLY TRANSITION.
5. PRIVATE STREET DEVELOPMENT SHOULD CONFORM TO THE STANDARD PUBLIC STREET DIMENSIONS SHOWN ON THE SHEET, WHERE APPROPRIATE. VARIATIONS MAY BE APPROVED ON A CASE-BY-CASE BASIS BY THE CITY.
6. FIFTY-FOOT CURB RADIUS (INSTEAD OF THE STANDARD 35' CURB RADIUS) SHALL BE PROVIDED FOR CUL-DE-SACS IN INDUSTRIAL AREAS. SEE CUL-DE-SAC ILLUSTRATION FOR FURTHER DESIGN STANDARDS.
7. ALLEYS SHALL BE A MINIMUM OF 20' IN WIDTH AND INTERSECTIONS AND/OR DEAD-END TERMINUSES SHALL BE DESIGNED TO CONFORM TO THE ALLEY ILLUSTRATIONS INCLUDED HEREIN.
8. FOR INTERSECTIONS OF STREETS, THE FOLLOWING DEDICATIONS SHALL APPLY;
  - A. INTERSECTIONS OF ARTERIAL STREETS WITH ANY OTHER STREET: 15' X 15' CUT CORNER OR 20' CURVED CORNER RADIUS.
  - B. INTERSECTIONS ON NON-ARTERIAL AND/OR HILLSIDE STREETS: 10' X 10' CUT CORNER OR 15' CURVED CORNER RADIUS.
9. STREETS THAT ARE ACCOMPANIED BY A PARALLEL FRONTAGE AND/OR SERVICE ROAD ARE DEEMED TO MEET THE STREET STANDARDS SET FORTH HEREIN AND THE DEDICATION REQUIREMENT SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION INTO COMPLIANCE WITH THE STREET STANDARD.
10. DUE TO THEIR UNIQUE CHARACTER AND DIMENSIONS ALL STREETS DESIGNATED AS DIVIDED ARE CONSIDERED TO HAVE MET THEIR STREET STANDARD AND THE DEDICATION SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION COMPLIANT WITH THE STREET STANDARD.
11. THE DIMENSION OF ANY MEDIAN, DIVIDED STRIP AND/OR TRANSIT WAY SHALL BE INCLUDED WHEN DETERMINING THE RIGHT-OF-WAY DIMENSION.
12. THE LOCATION OF THE DRAINAGE GUTTER IS NOT RESTRICTED TO THE CENTER OF THE SHARED STREET AND CAN BE PLACED WHERE NECESSARY AS APPROVED BY THE CITY.
13. A SHARED STREET SHALL PROVIDE A DEDICATED PEDESTRIAN ACCESS ROUTE.

# MAP OF PEDESTRIAN DESTINATION WITHIN 1,320 FEET OF SITE





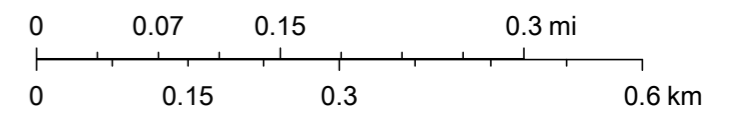
# Great Streets Challenge



9/2/2020, 12:18:31 PM

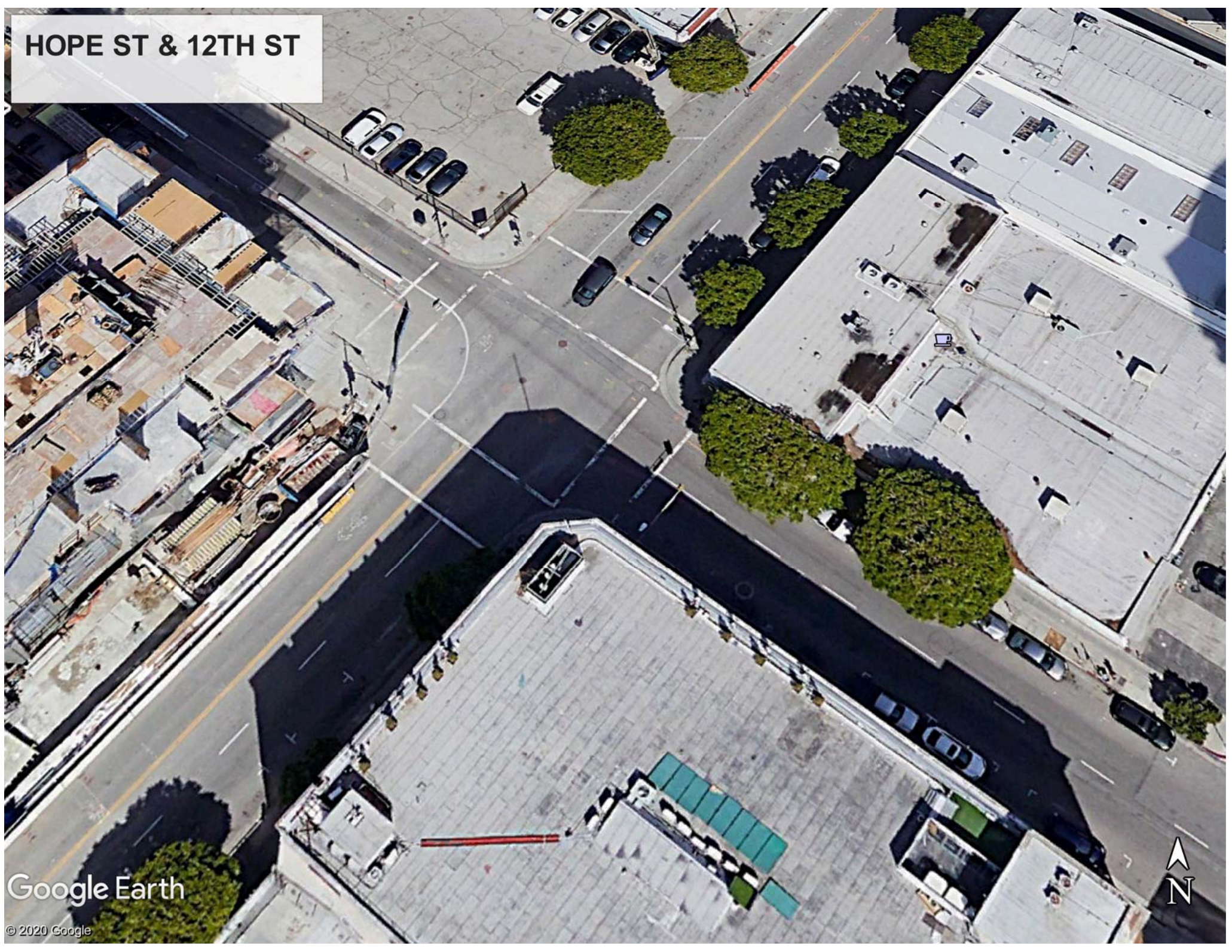
1:9,028

- |                |                              |         |
|----------------|------------------------------|---------|
| Metro Stations | — Silver Line                | Schools |
| Existing       | — Expo Line                  | Schools |
| Metro Lines    | — Library - Half-Mile Buffer | Parks   |
| Blue Line      |                              |         |



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

HOPE ST & 12TH ST



Google Earth

© 2020 Google



HOPE ST & PICO BL

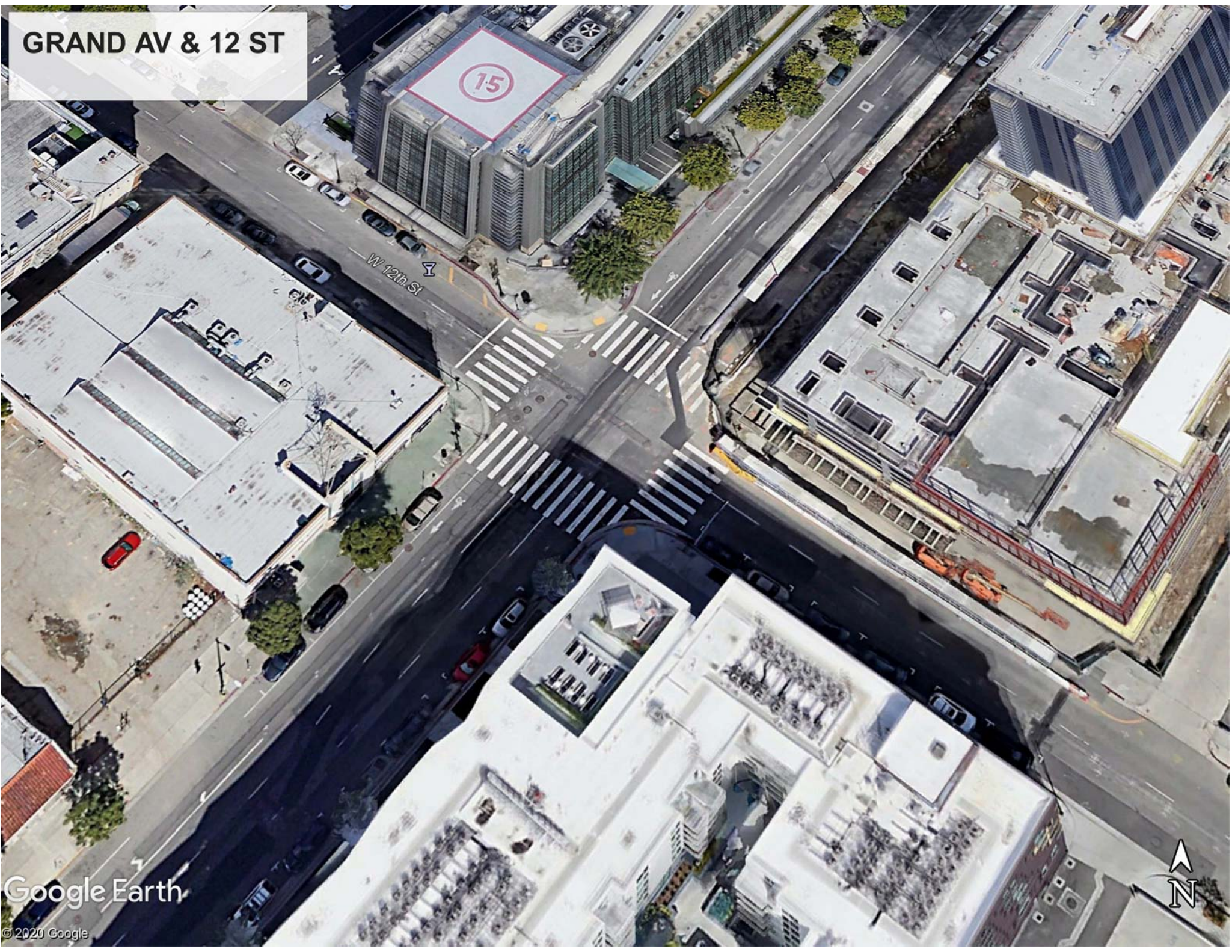


Google Earth

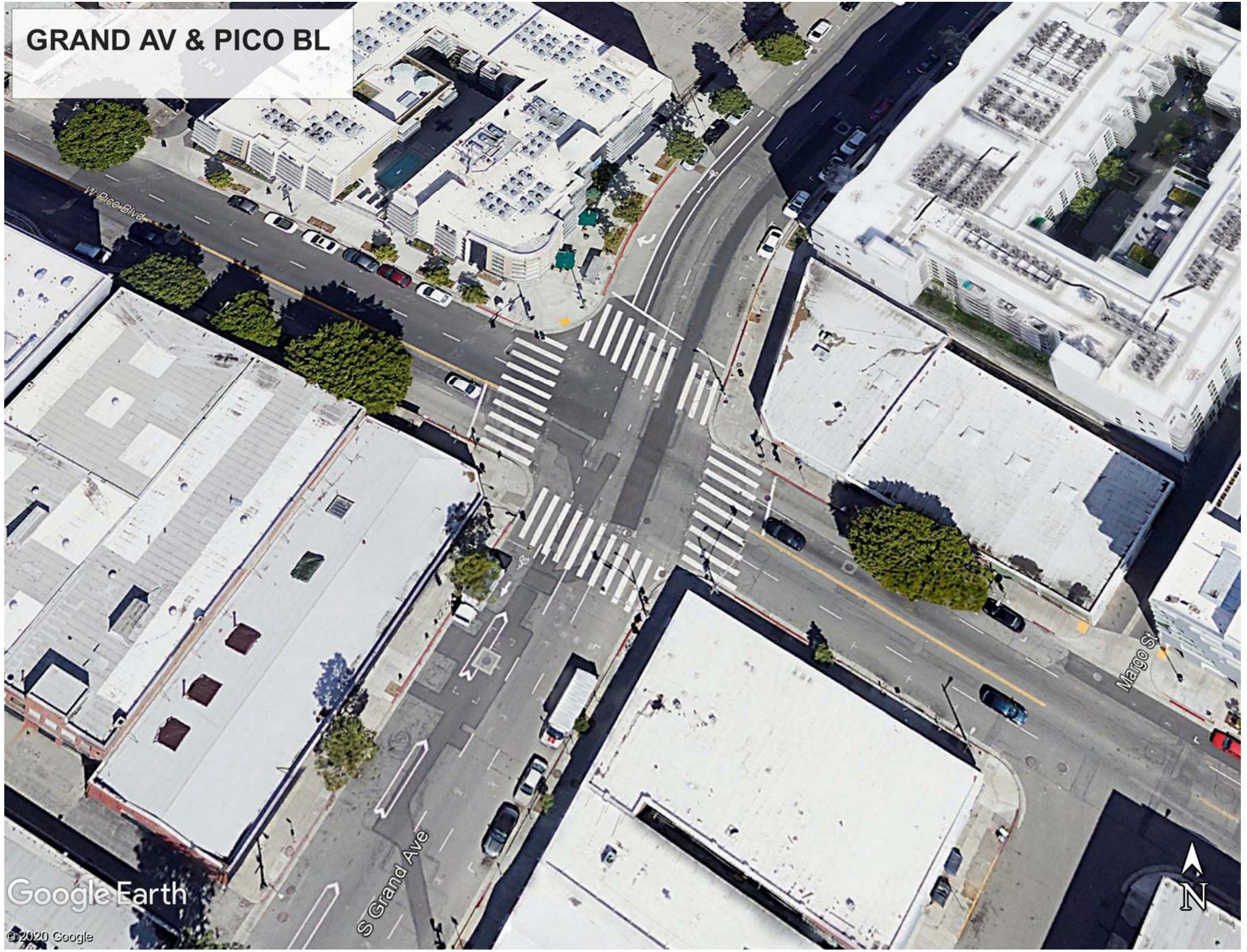
© 2020 Google



GRAND AV & 12 ST



# GRAND AV & PICO BL

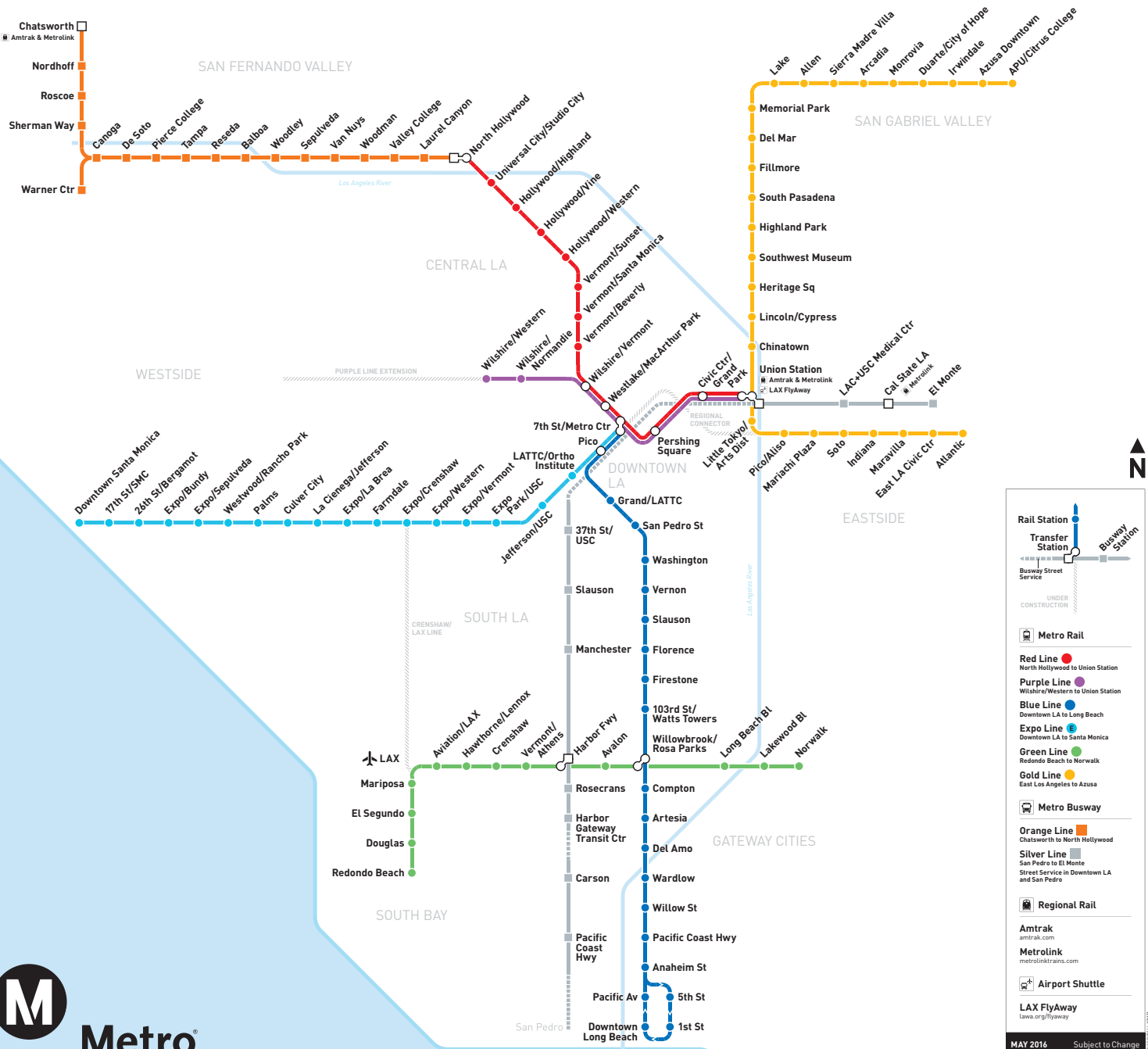


**APPENDIX D**

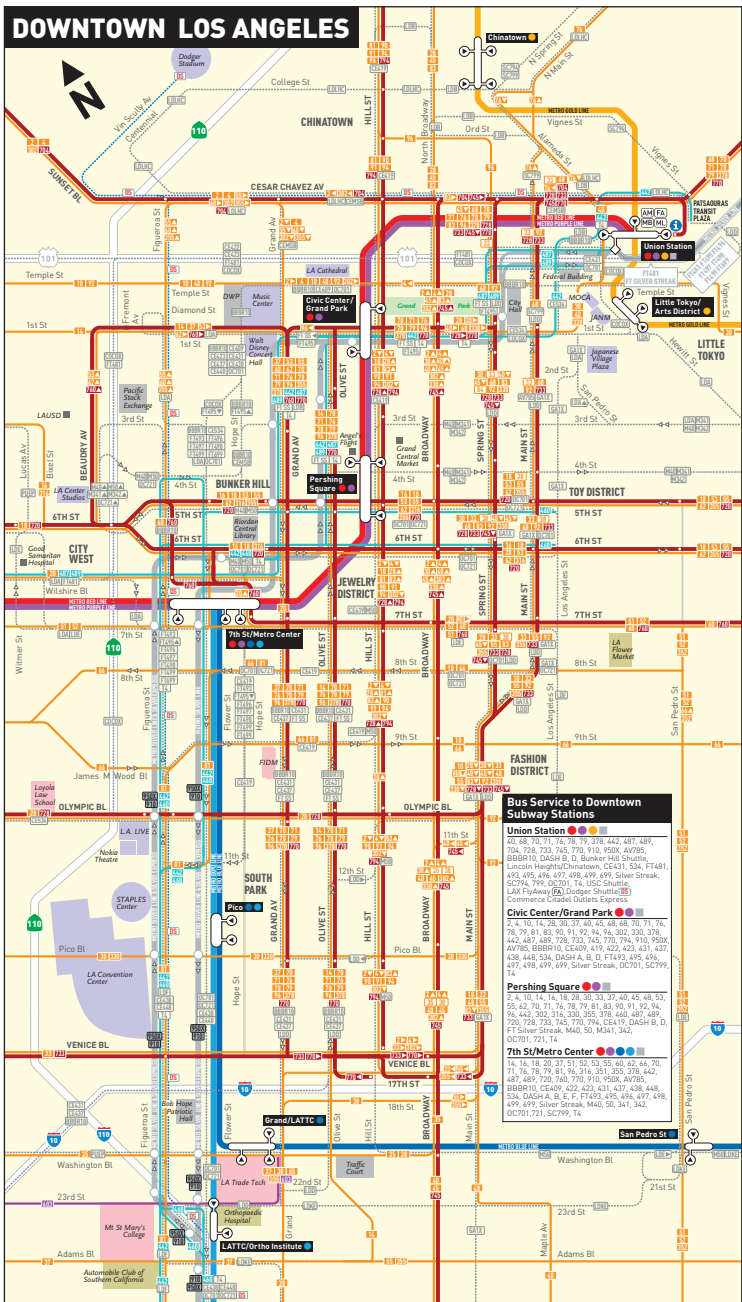
**TRANSIT ROUTES**

# Metro Rail & Busway

metro.net



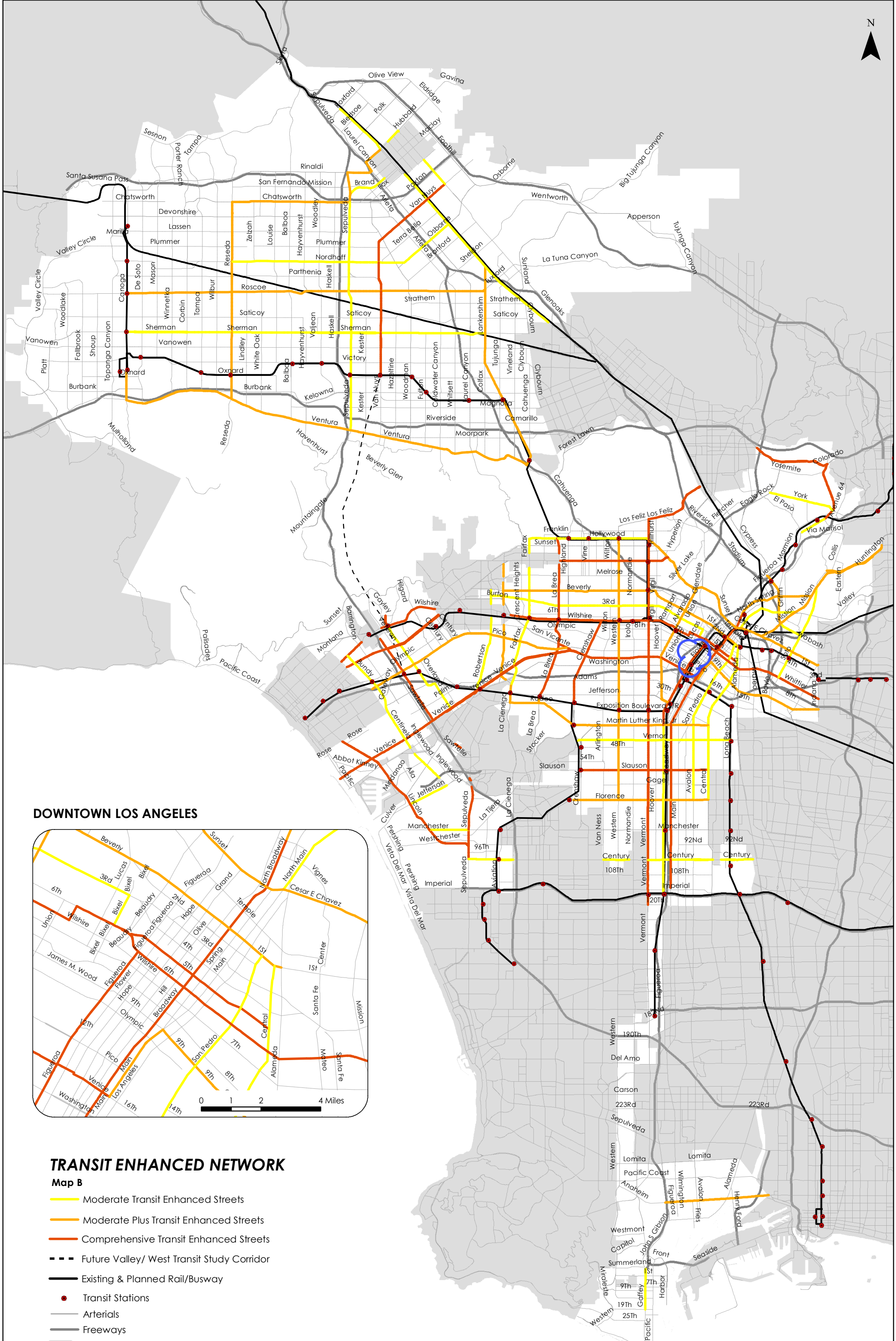
# DOWNTOWN LOS ANGELES



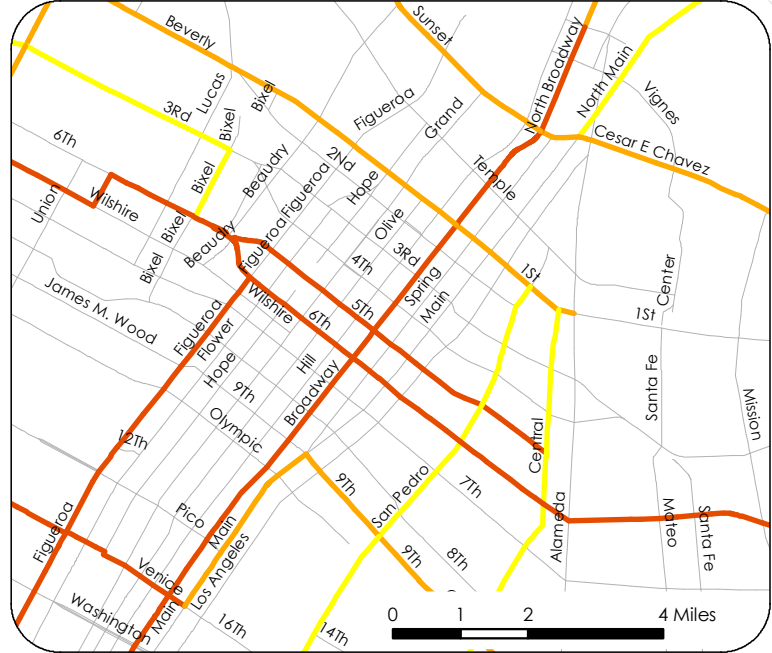


**APPENDIX E**

**MOBILITY NETWORK MAPS**



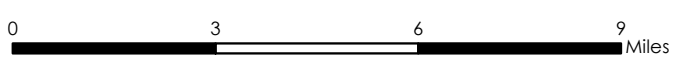
**DOWNTOWN LOS ANGELES**

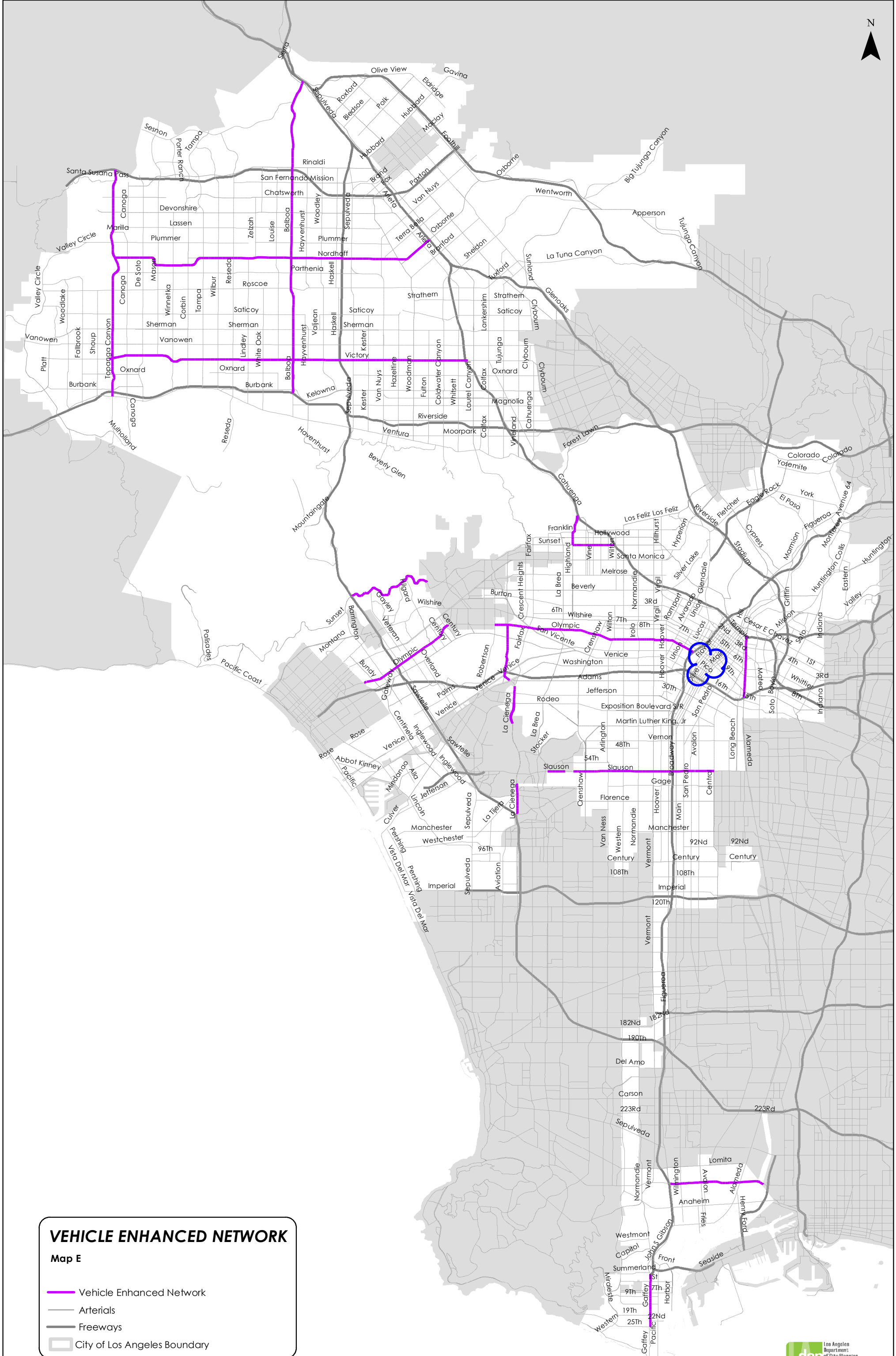


**TRANSIT ENHANCED NETWORK**

Map B

- Moderate Transit Enhanced Streets
- Moderate Plus Transit Enhanced Streets
- Comprehensive Transit Enhanced Streets
- - - Future Valley/ West Transit Study Corridor
- Existing & Planned Rail/Busway
- Transit Stations
- Arterials
- Freeways
- City of Los Angeles Boundary

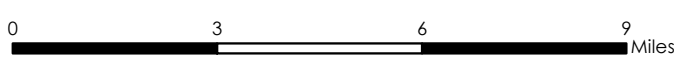


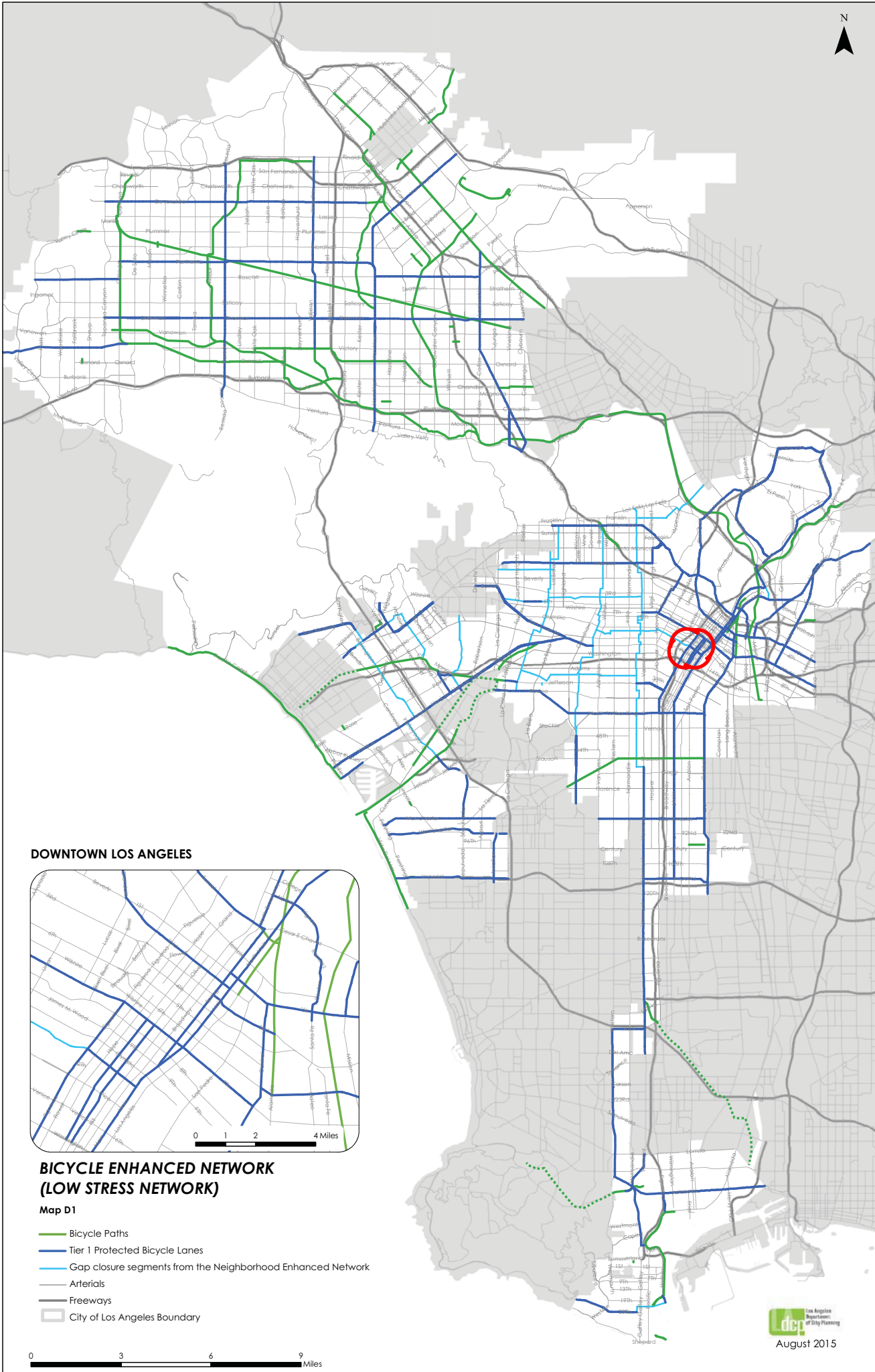


**VEHICLE ENHANCED NETWORK**

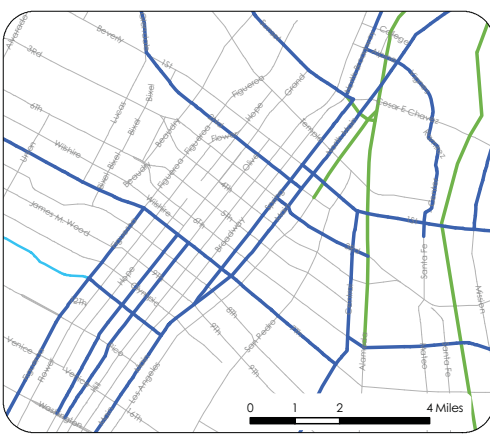
Map E

- Vehicle Enhanced Network
- Arterials
- Freeways
- City of Los Angeles Boundary











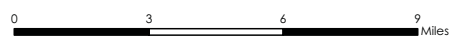
**DOWNTOWN LOS ANGELES**

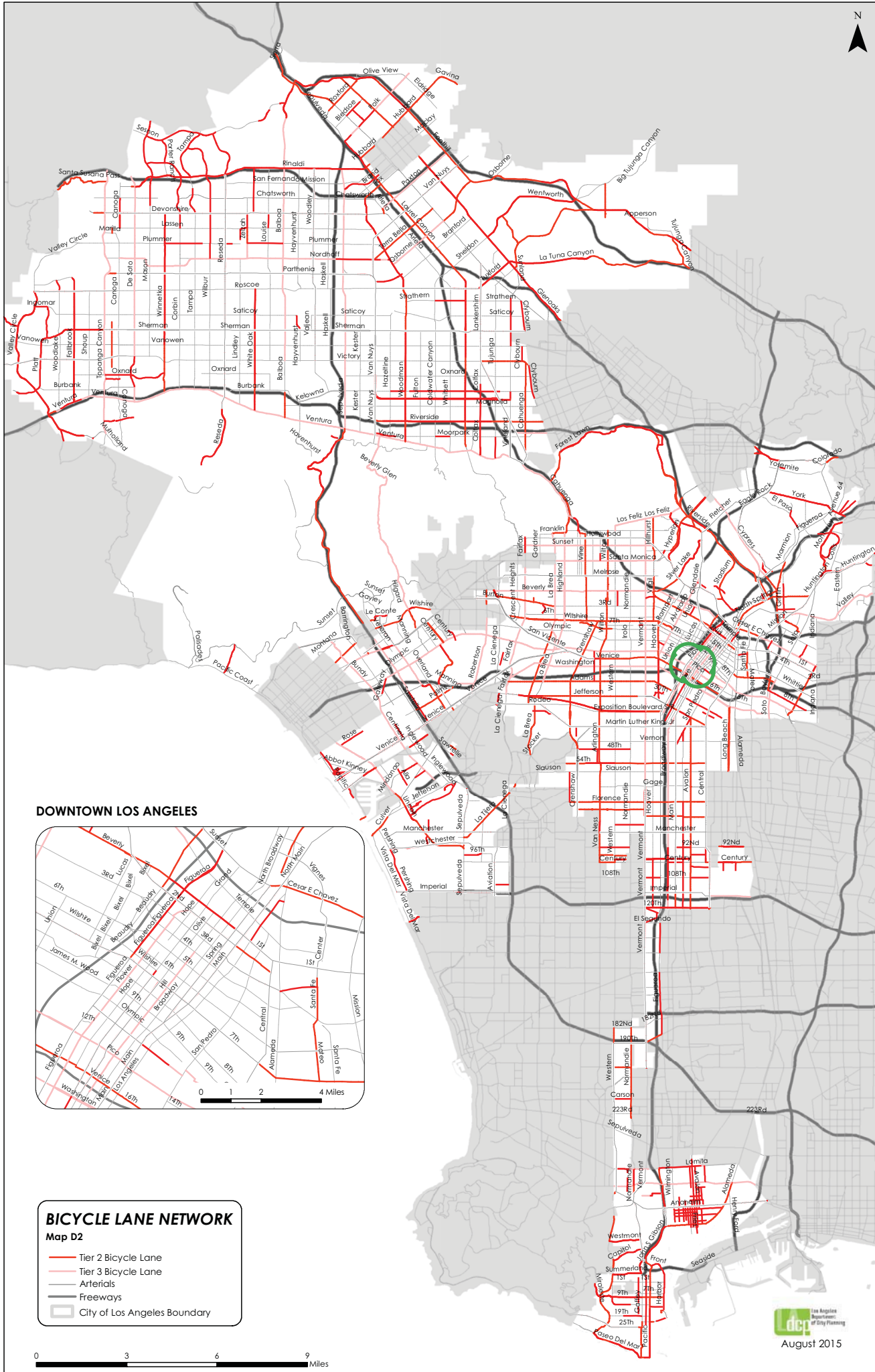


**BICYCLE ENHANCED NETWORK  
(LOW STRESS NETWORK)**

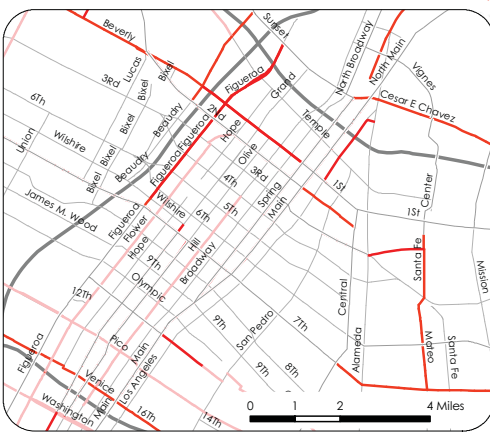
Map D1

-  Bicycle Paths
-  Tier 1 Protected Bicycle Lanes
-  Gap closure segments from the Neighborhood Enhanced Network
-  Arterials
-  Freeways
-  City of Los Angeles Boundary



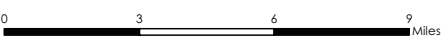


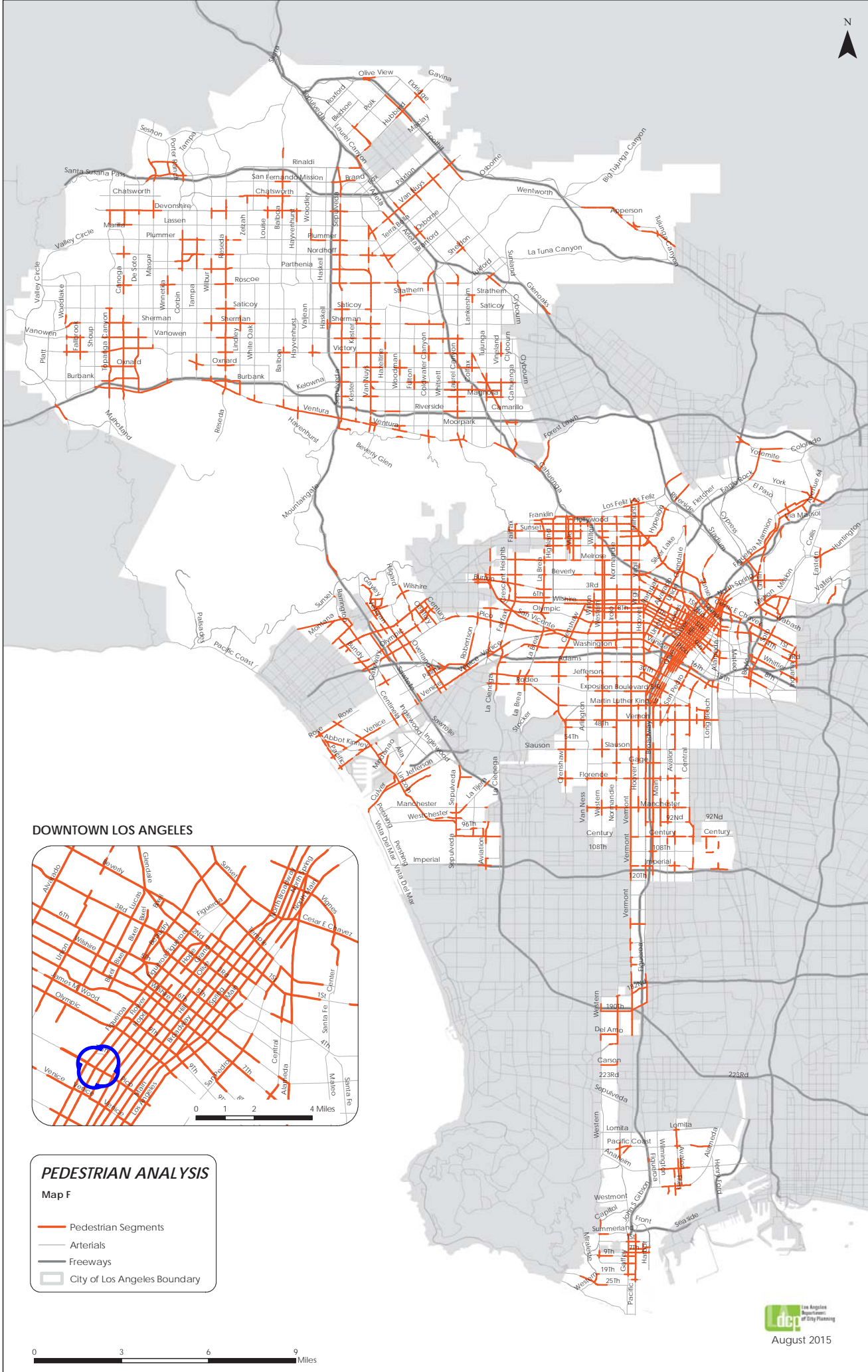
**DOWNTOWN LOS ANGELES**



**BICYCLE LANE NETWORK**  
Map D2

- Tier 2 Bicycle Lane
- Tier 3 Bicycle Lane
- Arterials
- Freeways
- City of Los Angeles Boundary





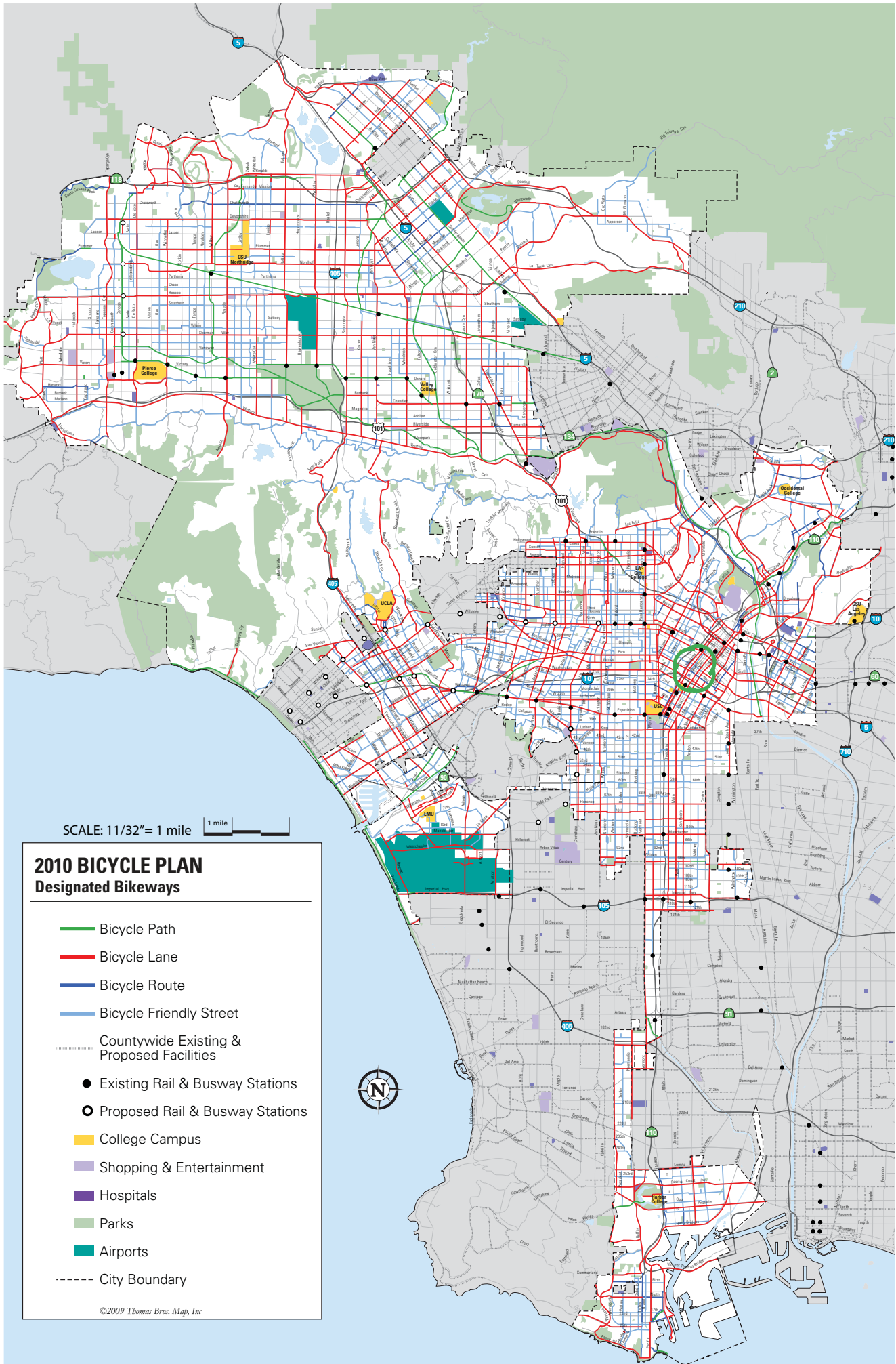
**DOWNTOWN LOS ANGELES**



**PEDESTRIAN ANALYSIS**  
Map F

- Pedestrian Segments
- Arterials
- Freeways
- City of Los Angeles Boundary



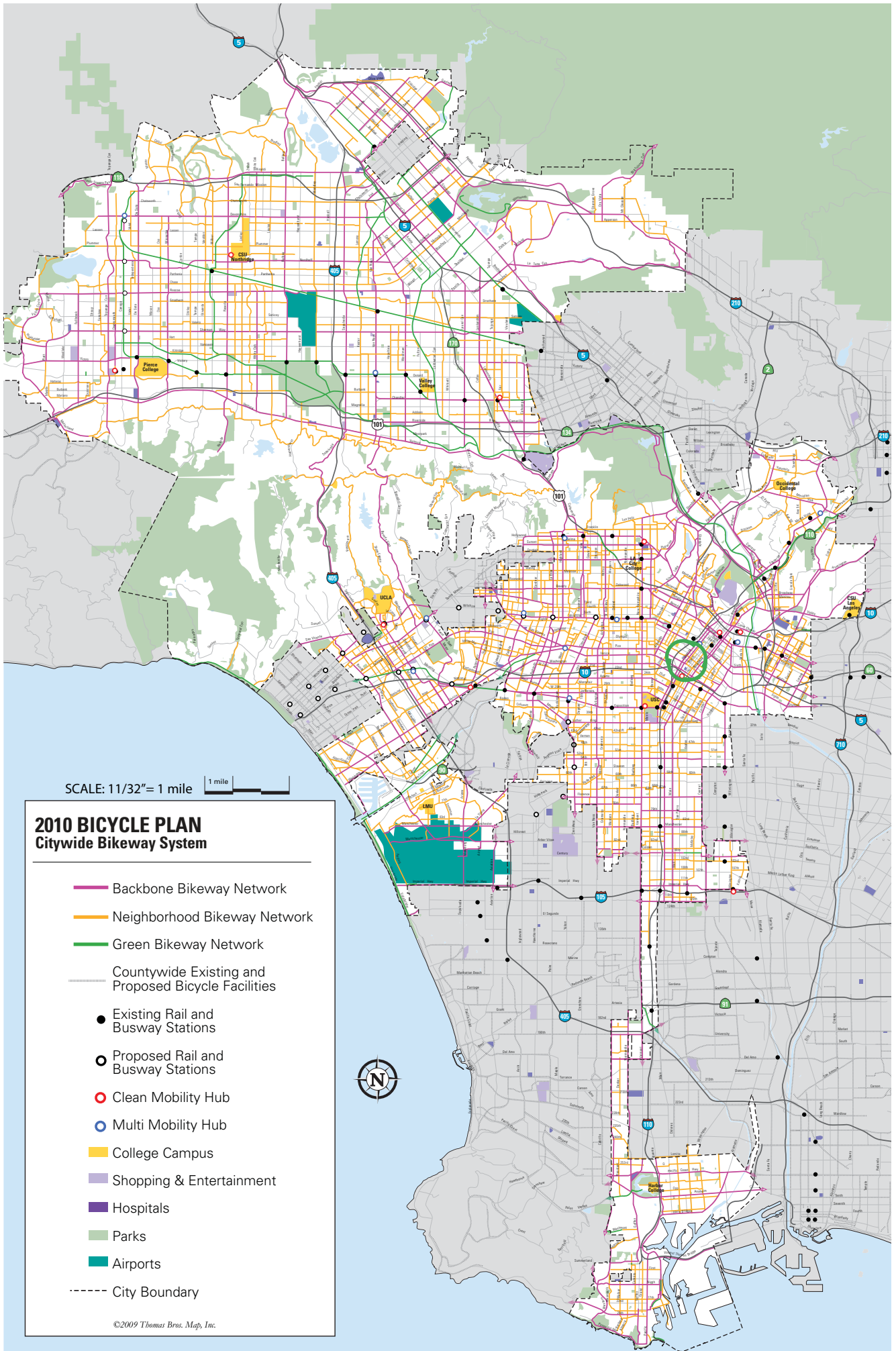


SCALE: 11/32" = 1 mile

**2010 BICYCLE PLAN**  
**Designated Bikeways**

- Bicycle Path
- Bicycle Lane
- Bicycle Route
- Bicycle Friendly Street
- Countywide Existing & Proposed Facilities
- Existing Rail & Busway Stations
- Proposed Rail & Busway Stations
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- - - City Boundary

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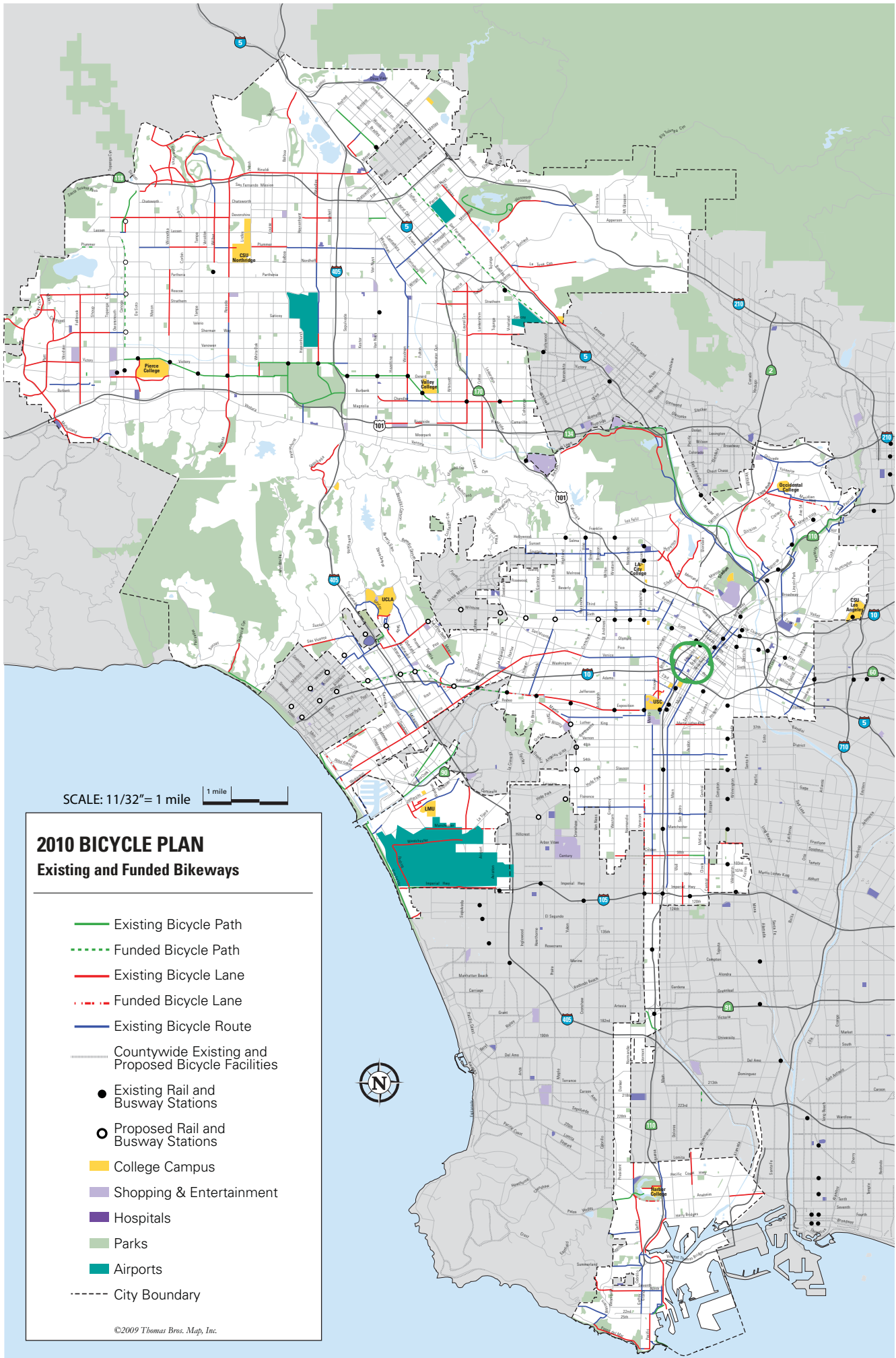
SCALE: 11/32" = 1 mile

### 2010 BICYCLE PLAN Citywide Bikeway System

- Backbone Bikeway Network
- Neighborhood Bikeway Network
- Green Bikeway Network
- Countywide Existing and Proposed Bicycle Facilities
- Existing Rail and Busway Stations
- Proposed Rail and Busway Stations
- Clean Mobility Hub
- Multi Mobility Hub
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- - - City Boundary

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SCALE: 11/32" = 1 mile



## 2010 BICYCLE PLAN Existing and Funded Bikeways

- Existing Bicycle Path
- - - Funded Bicycle Path
- Existing Bicycle Lane
- - - Funded Bicycle Lane
- Existing Bicycle Route
- Countywide Existing and Proposed Bicycle Facilities
- Existing Rail and Busway Stations
- Proposed Rail and Busway Stations
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- City Boundary

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**APPENDIX F**

**VMT REPORTS**

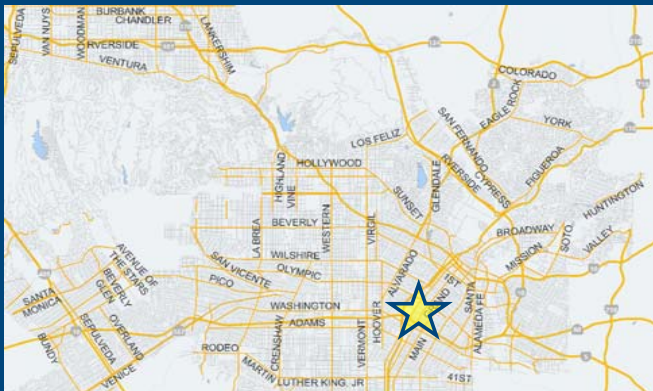
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project: Morrison Project VMT Version 1.3  
 Scenario:  [WWW](#)  
 Address: 1246 S HOPE ST, 90015



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[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
Retail   Quality Restaurant	13.802	ksf
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   High-Turnover Sit-Down Restaurant	9.848	ksf
Retail   Movie Theater	500	Seats
Retail   Quality Restaurant	13.802	ksf

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

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	4,240 Daily Vehicle Trips
0 Daily VMT	26,132 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	4,240 Net Daily Trips
The net increase in daily VMT ≤ 0	26,132 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	523.650 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

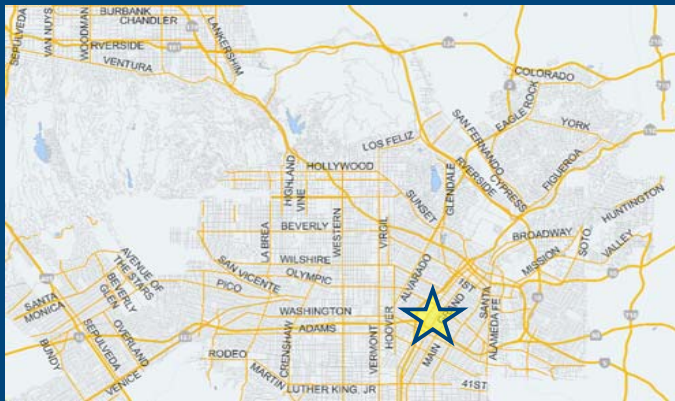


## Project Information

Project: Morrison Project VMT Version 1.3

Scenario:

Address: 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   High-Turnover Sit-Down Restaurant	9.848	ksf
Retail   Movie Theater	500	Seats
Retail   Quality Restaurant	13.802	ksf

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

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

**A** **Parking**

Reduce Parking Supply  city code parking provision for the project site

Proposed Prj  Mitigation  actual parking provision for the project site

Unbundle Parking  monthly parking cost (dollar) for the project site

Proposed Prj  Mitigation

Parking Cash-Out  percent of employees eligible

Proposed Prj  Mitigation

Price Workplace Parking  daily parking charge (dollar)

Proposed Prj  Mitigation  percent of employees subject to priced parking

Residential Area Parking Permits  cost (dollar) of annual permit

Proposed Prj  Mitigation

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

## Analysis Results

Proposed Project	With Mitigation
<b>3,612</b> Daily Vehicle Trips	<b>3,612</b> Daily Vehicle Trips
<b>22,267</b> Daily VMT	<b>22,267</b> Daily VMT
<b>3.4</b> Household VMT per Capita	<b>3.4</b> Household VMT per Capita
<b>6.6</b> Work VMT per Employee	<b>6.6</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: August 26, 2020

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information			
Land Use Type		Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	136	DU
	<i>Townhouse</i>	0	DU
	<b>Hotel</b>	444	Rooms
	<i>Motel</i>	0	Rooms
<i>Affordable Housing</i>	<i>Family</i>	0	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<i>General Retail</i>	0.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<b>High-Turnover Sit-Down Restaurant</b>	9.848	ksf
	<i>Fast-Food Restaurant</i>	0.000	ksf
	<b>Quality Restaurant</b>	13.802	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<b>Movie Theater</b>	500	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: August 26, 2020

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 327			
Total Population: 306			
<b>Proposed Project</b>		<b>With Mitigation</b>	
3,612	Daily Vehicle Trips	3,612	Daily Vehicle Trips
22,267	Daily VMT	22,267	Daily VMT
3.4	Household VMT per Capita	3.4	Household VMT per Capita
6.6	Work VMT per Employee	6.6	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No



TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	349	349
		Actual parking provision (spaces)	222	222
	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)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: August 26, 2020

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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





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



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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: August 26, 2020  
 Project Name: Morrison Project VMT Version 1.3  
 Project Scenario:  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Parking</b>	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
	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%	
<b>Transit</b>	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%	
<b>Education &amp; Encouragement</b>	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%	
<b>Commute Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: August 26, 2020

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	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%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

### Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
	<b>COMBINED TOTAL</b>	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
<b>MAX. TDM EFFECT</b>	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 4: MXD Methodology

Date: August 26, 2020

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	122	-29.5%	86	6.5	793	559
Home Based Other Production	338	-54.1%	155	4.4	1,487	682
Non-Home Based Other Production	975	-9.8%	879	7.2	7,020	6,329
Home-Based Work Attraction	474	-33.5%	315	8.0	3,792	2,520
Home-Based Other Attraction	4,113	-50.5%	2,037	5.5	22,622	11,204
Non-Home Based Other Attraction	855	-10.2%	768	6.3	5,387	4,838

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-14.8%	73	476	-14.8%	73	476
Home Based Other Production	-14.8%	132	581	-14.8%	132	581
Non-Home Based Other Production	-14.8%	749	5,393	-14.8%	749	5,393
Home-Based Work Attraction	-14.8%	268	2,147	-14.8%	268	2,147
Home-Based Other Attraction	-14.8%	1,736	9,547	-14.8%	1,736	9,547
Non-Home Based Other Attraction	-14.8%	654	4,123	-14.8%	654	4,123

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 306

Total Employees: 327

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>1,057</b>	<b>1,057</b>
<i>Total Home Based Work Attraction VMT</i>	<b>2,147</b>	<b>2,147</b>
<i>Total Home Based VMT Per Capita</i>	<b>3.4</b>	<b>3.4</b>
<i>Total Work Based VMT Per Employee</i>	<b>6.6</b>	<b>6.6</b>

## VMT Calculator User Agreement

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

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

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

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

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

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

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

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

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

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

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

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

You, the User	
By:	_____
Print Name:	LIZ FLEMING
Title:	V.P.
Company:	OVERLAND TRAFFIC
Address:	952 MANHATTAN BCH BL #100
Phone:	310 545-1235
Email Address:	LIZ@OVERLANDTRAFFIC.COM
Date:	_____

**Questions to Determine Project Applicability to Plans, Policies and Programs**

**Morrison Mixed Use**

#	Guiding Question	Relevant Plans, Policies, & Programs	Supporting/Complimentary City Plans, Policies, & Programs to Consult	Answer
<b>EXISTING PLAN APPLICABILITY</b>				
1	Does the project include additions or new construction along a street designated as a Boulevard I, II and/or Avenue I, II or III on property zoned for R3 or less restrictive zone?	LAMC Section 12.37		No
2	Is project site along any network identified in the City's Mobility Plan?	MP 2.3 through 2.7		Yes
3	Are dedications or improvements needed to serve long-term mobility needs identified in the Mobility Plan 2035?	MP - Street Classifications; MP- Street Designations & Standard Roadway Dimensions	MP - 2.17 Street Widening	Yes
4	Does the project require placement of transit furniture in accordance with City's Coordinated Street Furniture and Bus Bench Program?			No
5	Is project site in an identified Transit Oriented Community (TOC)?	MP - TEN; MP - PED; MP - BEN; TOC Guidelines		Yes
6	Is project site on a roadway identified in City's High Injury Network?	Vision Zero	Mobility Plan 2035	No
7	Does project propose repurposing existing curb space? (Bike corral, car-sharing, parklet, electric vehicle charging, loading zone, curb extension, etc.)	MP - 2.1 Adaptive Reuse of Streets; MP - 2.10 Loading Areas; MP - 3.5 Multi-Modal Features; MP - 3.8 Bicycle Parking; MP - 4.13 Parking & Land Use Management; MP - 5.4 Clean Fuels & Vehicles	MP - 2.3 Pedestrian Infrastructure; MP - 2.4 Neighborhood Enhanced Network; MP - 3.2 People with Disabilities; MP -4.1 New Technologies; MP 5.1 Substantial Transportation; MP - 5.5 Green Streets	No
8	Does project propose narrowing or shifting existing sidewalk placement:	MP 2.3 Pedestrian Infrastructure; MP 3.1 - Access for All; MP - PED; MP - ENG 19; MP 2.17 Street Widening	Healthy LA; Vision Zero; Sustainability Plan	No
9	Does project propose paving, narrowing, shifting or removing an existing parkway?	MP - 5.5 Green Streets; Sustainability Plan		No
10	Does project propose modifying, removing or otherwise affect existing bicycle infrastructure? (ex: driveway proposed along street with bicycle facility)	MP- BEN; MP - 4.15 Public Hearing Process	Vision Zero	Yes, the Preproject will remove a driveway on Pico Bl and Hope Street and provide an access way off Hope Street at N end of site.
11	Is project site adjacent to an alley? If yes, will project make use of, modify, or restrict alley access?	MP - 3.9 Increased Network Access; MP - ENG.9; MP - PL.1; MP - PL.13; MP - PS.3		The Project will not modify the alley (fully dedicated and improved). Project drivers will use alley to gain access to project driveway off intersecting access way.
12	Does project create a cul-de-sac or is project site located adjacent to existing cul-de-sac? If yes, is cul-de-sac consistent with design goal in Mobility Plan 2035 (maintain through bicycle and pedestrian access)?	MP - 3.10 Cul-de-sacs		No, Not applicable



#	Guiding Question	Relevant Plans, Policies, & Programs	Supporting/Complimentary City Plans, Policies, & Programs to Consult	Answer
<b>ACCESS: DRIVEWAYS AND LOADING</b>				
13	Does project site introduce a new driveway or loading access along an arterial (Avenue or Boulevard)?	MO - PL.1; MP - PK.10, CDG 4.1.02	Vision Zero	Yes, the Preproject will remove a driveway on Pico Bl (Ave I) and Hope Street (Avenue II), provide an access roadway along the N boundary of the site off Hope Street instead.
14	If yes to 13, Is a non-arterial frontage or alley access available to serve the driveway or loading access needs?	MP - PL.1; MPP 321	Vision Zero	Not applicable
15	Does project site include a corner lot? (avoid driveways too close to intersections)	CDG 4.1.01		Yes
16	Does project propose driveway width in excess of City standard?	MPP Sec. 321	Vision Zero; Sustainability Plan, MP - PED, MP - BEN; CDG 4.1.04	No
17	Does project propose more driveways than permitted by the City maximum standard?	MPP - Sec No. 321 Driveway Design	Vision Zero; Healthy LA	No
18	Are loading zones proposed as part of the project?	MP - 2.1 Loading Areas; MP - PK.1; MP - PK.7; MP - PK.8; MPP 321		Yes, on site valet zone along accessway
19	Does project include "drop-off" zones or areas? If yes, are such areas located to the side or rear of the buildings?	MP - 2.10 Loading Areas		Yes, on site valet zone along accessway
20	Does project propose modifying, limiting/restricting, or removing public access to a public right-of-way (e.g. vacating public right-of-way?)	MP - 2.3 Pedestrian Infrastructure; MP - 3.9 Increased Network Access		No

City Documents that Establish the Regulatory Framework

Plan or Poliy		Consistent?	Notes	Preclude City Implementation?
1.	LA Mobility Plan 2035	No	Existing structures that will not be removed preclude dedication and/or easement	Existing Building Precludes
2.	Plan for Healthy LA	Yes		No
3.	Land Use Element of the Generatl Plan (35 Community Plans)	Yes		No
4.	Specific Plans	No		No
5.	LAMC Section 12.21A.16 (Bicycle Parking)	Yes		No
6.	LAMC Section 12.26K (TDM Ordinance)	Yes		No
7.	LAMC Section 12.37 (Waivers of Dedications and Improvement)	Yes	Waiver Requested, Existing Building Precludes 15-foot sidewalk+3-foot easement along Hope Street and Pico Bl, additional requested for site cohesiveness	Existing Building Precludes
8.	Vision Zero Action Plan	Yes		No
9.	Vision Zero Corridor Plan	Yes		No
10.	Pedestrian Safety Action Plan (pending)	Pending		N/A
11.	Streetscape Plan	Yes		No
12.	Citywide Design Guidelines for Residential, Commercial and Industrial Development	No	Downtown design guidelines for Hope St & Pico Bl will be modified due to existing structure but will be implemented in the spirit of the guideline with on-site pedestrian walkways and interacting areas	Existing Building Precludes
13.	Walkability Checklist	Yes	Provided in the Environmental Document	No
14.	LADOT Transportation Technology Strately - Urban Mobility in a Digital Age	Yes		No
15.	Mobility Hubs Reader's Guide	Yes		No
16.	LADOT Manual of Policies and Procedures (Design Standards)	Yes		No

N/A = Not applicable

**APPENDIX G**

**RELATED PROJECT INFORMATION**

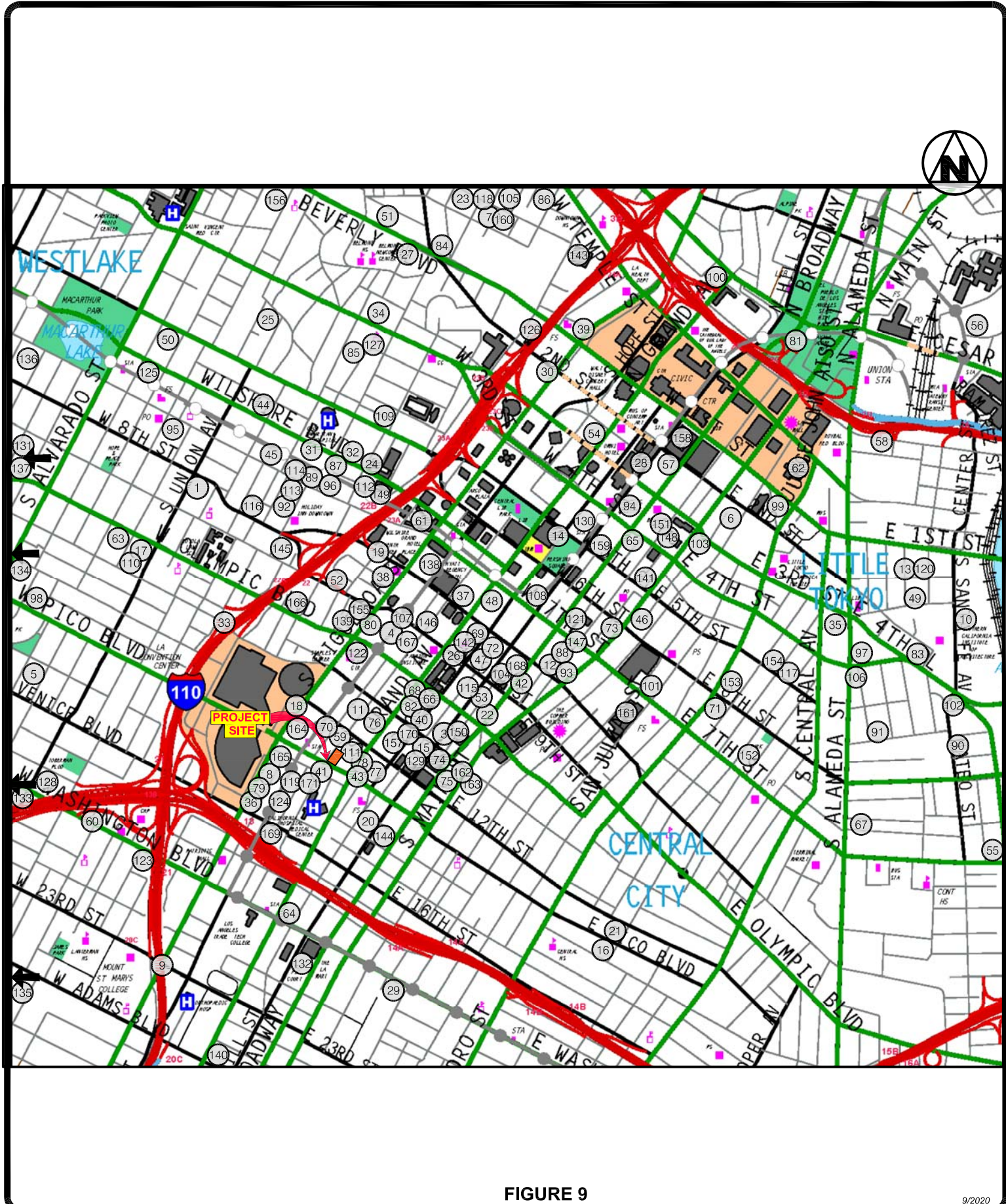


FIGURE 9

9/2020

RELATED PROJECT LOCATION MAP


**Overland Traffic Consultants, Inc.**  
 952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
 (310) 545-1235, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	1550 W 8th St	33,957 sf	Office	230	29	4	33	6	26	32
2.	237 S Los Angeles	43,453 sf	Sports complex	1,869	79	50	129	161	98	259
3.	146 W 11th St	20 units	Apartment							
		32,670 sf	Office							
		37,600 sf	Retail							
		565 units	Condominium							
			Total	5,563	248	98	346	166	399	565
4.	939 S Flower St	112 units	Apartment							
		95,700 sf	FIDM Campus Expansion	745	11	46	57	45	25	69
5.	1420 S Bonnie Brae St	26 units	Apartments	193	3	12	15	12	6	18
6.	225 S Los Angeles St	300 units	Condominium							
		3,400 sf	Retail							
			Total	1,910	57	167	224	80	46	126
7.	1301 W Colton Street	29 units	Apartment	193	3	12	15	12	6	18
8.	1360 S Figueroa St	622 units	Condominium	2,210	29	151	180	135	65	200
9.	2300 S Flower St	1,500 units	Apartment							
		40,000 sf	Retail							
			Total	8,757	121	308	429	264	168	432
10.	300 S Santa Fe Av	420 units	Apartment							
		45,000 sf	Retail							
		7,500 sf	Fast Food Restaurant							
		7,500 sf	Quality Restaurant							
			Total	8,741	170	394	564	447	291	738
11.	1133 S Hope St	159 units	Condominium							
		6,827 sf	Restaurant							
			Total	1,063	14	37	51	60	32	92
12.	745 S Spring St	247 units	Condominium							
		10,675 sf	Retail							
			Total	2,841	33	99	132	162	94	256
13.	905 E 2nd St	302 units	Condominium							
		22,335 sf	Retail							
			Total	1,248	16	46	62	60	34	94
14.	503 S Olive	900 units	Condominium							
		19,000 sf	Retail							
		19,200 sf	Restaurant							
			Total	1,284	16	43	59	73	42	115
15.	1115 S Hill St	172 units	Condominium							
		6,850 sf	Restaurant							
			Total	543	-1	-4	-5	28	15	43
16.	810 E Pico Bl	131 units	Condominium	619	7	37	44	36	18	54
17.	1600 W Olympic Bl	8 fp	Gas Station/Mini Market Add	1,302	41	41	81	54	54	107
18.	2455 S Figueroa St	145 units	Apartment	870	13	51	64	53	29	82
19.	609 W 8th St	225 units	Condominium							
		200 room	Hotel							
		30,000 sf	Retail							
		32,000 sf	Restaurant							
			Total	4,908	62	132	194	249	152	401

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
20.	1340 S Olive St	156 units 5,000 sf 10,000 sf	Apartment Retail Restaurant Total	1,700	51	82	133	89	57	146
21.	800 E 12th St	320,497 sf -1,458 sf -23,488 sf	Manufacturing Restaurant Manufacturing Total	962	126	95	221	108	170	278
22.	955 S Broadway	218 units 7,000 sf	Apartment Retail Total	1,275	21	72	93	74	43	117
23.	1346 W Court Street	43 units	Apartment	286	4	18	22	17	10	27
24.	1130 W Wilshire Bl	86,844 sf	Office	530	82	21	103	17	66	83
25.	425 S Union Av	33 units	Apartment	213	3	13	16	13	7	20
26.	848 S Grand	420 units 38,500 sf	Residential Market Total	3,882	66	144	210	212	165	377
27.	1430 W Beverly Bl	157 units	Apartment	780	12	48	60	47	26	73
28.	250 S Hill	330 units 12,000 sf	Condominium Retail/Restaurant Total	1,217	21	73	94	96	42	108
29.	220 E Washington Bl	357 units 19,000 sf	Apartment Retail/Restaurant Total	5,319	114	290	404	285	181	466
30.	2100 S Figueroa St	291 units 7,134 sf	Condominium Retail Total	870	-3	-13	-16	25	14	39
31.	1239 W Wilshire Bl	56,450 sf	Medical Office	2,040	111	29	140	59	151	210
32.	1111 Wilshire Bl	450 students	School Relocation	492	119	76	195	26	34	60
33.	1110 W 11th Street		Convention Center Modernization & Farmers Field Stadium Event Center Event Meeting Space Total	15,523	117	3	120	9,777	225	1,002
34.	1435 W 3rd St	122 units 5,000 sf	Apartment Retail Total	769	16	39	55	43	27	70
35.	333 S Alameda Av	40,800 sf	Bowling Alley	1,360	77	51	128	42	28	70
36.	1500 S Figueroa St	190 units 10 units 10,922 sf	Apartment Live/Work Retail Total	1,199	17	68	85	73	38	111

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
37.	754 S Hope St	409 units 7,329 sf	Apartment Retail	2,315	35	137	172	137	78	215
38.	845 S Figueroa	21,122 sf	Discount Supermarket	972	20	13	32	46	44	90
39.	150 N Figueroa St	712,500 sf 35,000 sf 2,500 sf	Office Retail Child Care Total	13,534	860	188	1,048	240	1,134	1,374
40.	1027 S Olive	100 units	Apartment	632	9	39	48	38	21	59
41.	1306 S Hope	419 units 42,200 sf	Apartment Retail	4,280	88	105	193	136	102	138
42.	928 S Broadway	662 units 47,000 sf 11 units 34,824 sf	Apartment Retail Live/Work Office Total	4,715	21	229	250	272	109	381
43.	1200 S Grand Av	640 units 45,000 sf	Apartment Retail Total	4,886	92	148	240	181	134	315
44.	1501 W Wilshire Bl	217 units 2,400 sf 4,450 sf	Apartment Retail Restaurant Total	1,163	-11	158	7	38	23	61
45.	1329 W 7th St	94 units 2,000 sf	Apartment Retail Total	662	15	38	53	37	24	61
46.	534 S Main St complete - not fully occupied	160 units 18,000 sf 3,500 sf 3,500 sf	Apartment Retail Restaurant Fast Food Total	2,213	52	75	127	87	58	145
47.	840-860 S Olive	303 units 8,680 sf	Condominium Restaurant Total	3,071	81	166	247	174	96	2,710
48.	710 S Grand Av	700 units 27,000 sf 5,000 sf	Apartment Retail Restaurant Total	5,245	88	185	273	275	202	477
49.	950 E 3rd St	400 student 39,900 sf 188,325 sf 408 units	Sci Art School Office Retail Apartment Total	8,070	447	219	666	314	493	809
50.	619 S Westlake	52 units	Apartment	254	4	16	20	15	9	24
51.	1552 W Rockwood St	600 student	High School (credit for 182 student High School)	715	110	70	180	23	31	54

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
52.	899 S Francisco St	836 units 988,225 sf 480 room 46,000 sf	Condominium Office Hotel Retail/Restaurant Total	8,010	288	337	625	475	242	899
53.	920 S Hill Street	239 units 5,400 sf	Condominium Retail Total	1,311	21	76	97	78	44	122
54.	237 S Grand Av	265 units 5,020 sf	Apartment Restaurant Total	1,918	29	106	136	112	66	178
55.	2051 E 7th St	182 units 3,000 sf	Condominium Retail Total	242	6	23	29	16	4	20
56.	920 N Vignes		MTA Bus Facility	1,927	36	36	72	38	37	75
57.	201 S Broadway	27,765 sf	Retail/Restaurant	1,186	17	10	27	50	54	104
58.	454 E Commercial St	87,120 sf	Bus Maintenance	155	22	8	30	8	1	9
59.	1219 S Hope Street	75 rooms	Hotel	613	24	16	40	23	22	45
60.	902 W Washington Bl	142 units	Condominium	482	2	25	27	35	16	51
61.	900 W Wilshire Blvd		Mixed use/Redevelopment	3,624	725	75	800	94	764	858
62.	150 N Los Angeles St LA Civic Center	712,500 sf 35,000 sf 2,500 sf	Office Retail Other Total	13,534	930	118	1,048	435	942	1,374
63.	1700 W Olympic Bl	160 Rooms	Hotel	1,157	44	32	76	45	42	87
64.	233 W Washington Bl	160 units 24,000 sf	Apartment Retail	1,764	25	56	81	89	71	160
65.	400 S Broadway	450 units 7,500 sf 5,000 sf	Apartment Retail Other Total	2,266	36	147	183	139	73	212
66.	1001 Olive Street	1,367 units 20,000 sf 20,000 sf	Apartment Retail Restaurant	8,063	116	510	626	503	209	712
67.	1525 E. Industrial St	240 units 7,165 sf 4,110 sf	Apartment Retail Other Total	1,729	37	59	96	69	44	113
68.	1000 S Grand Av	274 units 12,000 sf	Apartment Commercial Total	2,216	27	94	121	130	69	199
69.	801 S Olive St	331 units 10,000 sf	Apartment Other Total	2,557	33	129	162	140	83	223
70.	1212 W Flower St	730 units 10,500 sf 70,465 sf	Condominium Retail Office	3,956	78	233	311	229	121	350



No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
71.	600 S San Pedro St	303 units 16,773 sf	Apartments Office	636	38	25	63	30	37	67
72.	820 S Olive St	3,136 sf 589 units 4,500 sf	Retail Apartment Retail	3,309	63	202	265	195	106	301
73.	601 S Main St	452 units 25,000 sf	Condominium Retail							
74.	1111 S Broadway	391 units 39,725 sf 49,000 sf	Apartment Office Retail	2,686	36	144	180	152	87	239
75.	1148 S Broadway	94 units 2,500 sf	Apartment Retail	553	8	30	38	32	18	50
76.	1120 S Grand Ave	666 units 300 Rooms 8,700 sf	Apartment Hotel Retail	2,730	42	127	169	136	93	229
77.	1230 S Olive St	362 units 4,000 sf	Apartment Retail	2,114	31	126	157	127	69	196
78.	1247 Grand Av.	118 units 5,125 sf	Apartment Retail							
79.	1400 S Figueroa St	106 units 4,834 sf	Apartment Retail	763	10	41	51	42	25	67
80.	940 S Figueroa St	10,056 sf 5,119 sf 1,942 seats	Office Restaurant Theatre	647	10	38	48	39	22	61
81.	527 N Spring St	LA County Project	La Plaza Cultura	3,585	49	118	167	189	131	320
82.	1036 S Grand Av	7,149 sf	Restaurant	492	2	3	5	27	14	41
83.	963 E 4th St.	78,600 sf 25,000 sf 20,000 sf	Office Retail Restaurant	2,512	106	22	128	113	138	251
84.	1335 W 1st St	101 units 3,514 sf	Apartment Retail							
85.	459 S Hartford Av	94 units	Apartment	714	10	40	50	42	24	66
86.	401 N Boylston St	101 units	Apartment	658	9	37	48	43	23	66
87.	1150 W Wilshire Blvd	80 units 4,589 sf	Apartment Restaurant	561	8	35	43	34	18	52
88.	737 S Spring St	320 units 25,000 sf	Apartment Pharmacy Total	511	-22	26	4	39	-5	34
				3,942	72	141	213	167	116	283

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
89.	1218 W Ingraham St	90 units	Apartment	532	8	33	41	33	17	50
90.	555 S Mateo St	153,000 sf	Retail	4,300	5	30	35	220	205	425
91.	1147 E Palmetto	120 units	Apartment							
		141 Rooms	Hotel							
		20,000 sf	Restaurant							
			Total	2,908	73	141	215	147	83	230
92.	742 S Hartford Av	58 units	Apartment	333	5	21	26	20	11	31
93.	732 S Spring St	400 units	Apartment							
		15,000 sf	Pharmacy							
			Total	3,409	59	152	211	164	104	268
94.	340 S Hill St	428 units	Apartment							
		6,700 sf	Retail							
			Total	2,361	34	129	163	141	79	220
95.	1728 W 7th St	9,600 sf	Restaurant							
		3,500 sf	Bar							
			Total	362	-30	-40	-70	50	14	64
96.	1145 W 7th St	126 units	Condominium							
		100 units	Apartment							
		7,200 sf	Retail							
			Total	1,084	4	66	70	67	35	102
97.	360 S Alameda St	55 units	Apartment							
		2,500 sf	Restaurant							
		6,300 sf	Office							
			Total	670	25	33	58	35	26	61
98.	1929 W Pico Bl	480 student	Charter High School	821	140	66	206	20	42	62
99.	118 Astronaut E. S. Onizuka	77 units	Apartment	97	-1	20	19	19	6	25
100.	700 W Cesar Chavez Av	300 units	Apartment							
		8,000 sf	Retail							
			Total	1,511	7	89	96	99	54	153
101.	649 S Wall St	66 empl	Medical Office							
		55 Beds	Assisted Living							
			Total	104	24	5	29	3	24	27
102.	500 S Mateo St	12,682 sf	Restaurant	1,052	48	41	89	50	31	81
103.	300 S Main St	471 units	Apartment							
		5,190 sf	Retail							
		27,780 sf	Restaurant							
			Total	4,691	143	243	386	257	153	410
104.	850 S Hill St	305 units	Apartment							
		3,200 sf	Retail							
		3,300 sf	Restaurant							
			Total	1,970	28	106	134	116	65	181
105.	340 N Patton St	43 units	Apartment	267	4	16	20	17	8	25
106.	400 S Alameda St	66 rooms	Hotel							
		2,130 sf	Restaurant							
		840 sf	Retail							
			Total	508	19	17	36	23	14	37

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
107.	700 W 9th St	689 units	Condominium	2,624	37	146	183	143	95	238
		22,963 sf	Retail							
108.	649 S Olive St	241 Rooms	Hotel	1,674	6	44	50	63	60	123
109.	1111 W 6th St (revised)	369 units	Apartment							
		18,600 sf	Retail							
		2,200 sf	Restaurant							
		1,200 sf	Coffee							
			Total	587	-71	117	46	104	-51	53
110.	1633 W 11th St	460 student	Charter School (K-5)	970	194	158	352	29	37	66
111.	1229 Grand Av	161 units	Condominium	1,116	23	62	85	62	33	95
		3,000 sf	Restaurant							
112.	675 S Bixel St	126 Rooms	Hotel							
		422 units	Apartment							
		4,874 sf	Retail							
			Total	3,461	74	173	247	184	116	300
113.	740 S Hartford Av	80 units	Apartment	479	7	30	37	29	15	44
114.	1235 W 7th St	303 units	Condominium							
		5,959 sf	Retail							
			Total	1,725	23	95	118	100	54	154
115.	940 S Hill St. (MU revised)	232 units	Apartment	1,181	20	80	100	115	53	168
		14,000 sf	Restaurant							
116.	1322 W Linwood Av	84 units	Apartment	449	5	30	35	28	14	42
117.	719 E 5th St	160 units	Apartment							
		10,057 sf	Retail							
			Total	1,033	15	58	73	59	37	96
118.	1316 W Court St	112 units	Apartment	745	11	46	57	45	24	69
119.	1334 S Flower St	188 units	Apartment	796	-1	49	48	51	16	67
		10,096 sf	Retail/Restaurant							
120.	929 E 2nd St	40,034 sf	Retail							
		985 sf	Retail							
		7,843 sf	Event Space							
		10,369 sf	Private Drinking Space							
		40,249 sf	Private Office							
		5,383 sf	Private Health Club							
		49 sf	Private Theater							
			Total	2,014	61	9	70	101	88	189
121.	633 S Spring St	176 rooms	Hotel							
		8,430 sf	Restaurant							
		5,290 sf	Bar							
			Total	2,045	83	33	116	97	99	196
122.	1020 S Figueroa St	435 units	Condominium	6,583	204	274	478	312	227	539
		300 Rooms	Hotel							
		40,000 sf	Retail							
		40,000 sf	Restaurant							

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
123.	720 W Washington Bl	105 units	Apartment	350	7	12	19	13	12	25
124.	1400 S Flower St	147 units	Apartment	798	-1	49	48	51	16	67
		6,921 sf	Retail							
125.	1930 W Wilshire Bl	478 units	Apartment							
		850 seats	Theatre							
		50 student	Enrollment							
		220 rooms	Hotel							
			Total	1,355	-44	128	84	103	-41	62
126.	130 S Beaudry Av	230 units	Apartment							
		9,000 sf	Retail							
			Total	1,323	11	77	88	83	36	119
127.	495 S Hartford Av	220 units	Apartment	1,033	16	63	79	62	34	96
128.	1122 W Washington Bl	60,000 sf	Medical Office	2,060	107	29	136	57	146	203
129.	1155 S Olive St	258 rooms	Hotel	2,008	77	56	133	77	72	149
		1,896 sf	Retail							
		2,722 sf	Restaurant							
130.	437 Hill Street	600 units	Apartment	3,088	44	122	166	162	97	259
		13,872 sf	Restaurant							
131.	1011 S Park View St	108 units	Apartment	594	9	38	47	38	19	57
132.	1900 S Broadway	900 units	Condominium	1,203	390	552	942	637	566	1,203
	(The Reef_LAMart)	550 units	Apartments							
		210 room	Hotel							
		143,100 sf	Retail							
		180,000 sf	Office							
		17,600 sf	Museum/Gallery							
		8,000 sf	Gym							
133.	1302 W Washington Bl	16,572 sf	Pharmacy-Drug Store	414	-33	-18	-51	21	12	33
134.	1255 E Elden Av	103 units	Apartment	376	0	32	32	28	10	38
135.	2716 S Severance St	9,955 sf	Child Care Expand	737	64	57	121	58	65	123
136.	2405 W 8th Street	144 units	Apartment	333	-20	48	28	42	-15	27
		4,406 sf	Retail							
137.	2501 Olympic Bl	173 units	Apartments	1,911	27	72	99	100	73	173
		3,618 sf	Retail							
138.	744 S Figueroa St	436 units	Apartments	2,972	38	148	186	176	94	270
		10,165 sf	Retail							
139.	815 W Olympic Bl	346 rooms	Hotel	3,915	137	133	270	167	165	332
		61,149 sf	Retail							
		36,256 sf	Office							
140.	243 W Adams Bl	300 units	Apartments	990	5	99	104	72	10	82
		5,000 sf	Retail/Restaurant							
141.	433 S Main	161 units	Condominium	1,859	85	147	232	66	48	113
		1,700 sf	Restaurant							
		900 sf	Retail							
		4,300 sf	Coffee							

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
142.	845 Olive & 842 Grand	208 units 2,400 sf	Apartment Restaurant	1,202	24	70	94	72	39	111
143.	1000 W Temple St	1,500 units 30,000 sf (10 story)	Apartment Retail Office Building	9,975	150	615	765	600	330	930
			Total	1,281	18	11	29	53	58	112
			Total	-1,101	-136	-19	-155	-25	-124	-149
			Total	10,155	32	607	639	628	264	893
144.	1340 S. Hill St	235 units 9,000 sf	Apartment Retail	1,563	24	96	120	94	52	146
			Total	4,465	227	218	444	158	146	305
			Total	6,028	250	314	564	252	198	450
145.	8th-Golden-Garland	118 sf 2,439 sf 1,132 sf 2,684 sf 69,295 sf	Residential Retail Bar Daycare Office	1,281	81	45	126	52	92	144
146.	888 S Hope Street	526 units	Apartments	3,498	54	214	268	214	212	426
147.	701 S Hill Street	165 units 11,902 sf 14,032 sf	Apartments Bar Restaurant	2,792	18	57	75	132	127	259
148.	354 S Spring St	212 units	Apartments	1,410	22	86	108	85	46	131
149.	1018 W Inghram St	37 units 1,890 sf	Apartments Retail	327	5	16	21	18	12	30
150.	1030 S Hill Street	700 units 7,000 sf	Apartments Retail	3,392	49	193	242	181	104	285
151.	361 S Spring Street	7,000 sf 315 rooms	Restaurant Hotel	2,273	91	59	150	133	75	208
152.	656 S Stanford Ave	82	Apartments	1,463	8	34	42	33	18	51
153.	554 S San Pedro St	407 units 7,690 sf 4,410 sf	Affordable Housing Retail/Restaruant Office	558	33	23	56	29	31	60
			Dining/Flex Space	1,004	15	62	77	61	33	94
154.	609 E 5th Street	151 units	Apartments	998	5	71	77	33	60	93
155.	911 S Figueroa Street	220 units 200 units 94,080 sf	Hotel Apartments Retail/Restaurant	4,457	370	116	486	168	368	536
156.	1800 Beverly Bl	243 units 3,500 sf	Apartments Restaurant	1,585	36	93	129	92	51	143
157.	1045 S Olive Street	800 units 15,000 sf	Residential Retail/Restaurants	2,227	39	157	196	138	62	200
158.	100 S Broadway	1,127 units 34,572 sf 45,000 sf	Apartment Retail Grocery	8,535	91	341	435	294	38	332

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
159.	333 W 5th Street	100 units 200 rooms 142 units 25,000 sf	Condominiums Hotel or Condominiums Restaurant/Bar/Fitness	3,358	64	72	136	201	129	330
160.	1246 W Court Street	54 units	Apartments	359	6	22	28	21	12	33
161.	755 S Wall Street	53,200 sf 323 units 4,400 sf 4,420 sf	Office Apartments Retail Restaurant	2,499	112	79	191	164	141	305
162.	1123 S Main St	125 persons 363 units 12,500 sf	Event Space High Rise Apartments Retail	463	5	64	69	34	6	40
163.	1100 S Main Street	379 units 25,810 sf	Apartments Retail	385	9	103	112	78	14	92
164.	1248 S Figueroa	1,162 room 6,573 sf 6,573 sf	Hotel Restaurant High Turnover Restaurant	5,720	145	192	317	203	212	415
165.	1300 S Figueroa	1,024 room	Hotel	8,366	170	373	543	188	426	614
166.	1001 W Olympic Bl	879 units 1,000 rooms 20,000 sf 20,000 sf	Apartments Hotel Retail Restaurant	10,418	320	388	708	455	309	764
167.	949 S Hope St	236 units 5,060 sf 894 sf	Apartments Restaurant Retail	791	8	45	53	43	7	50
168.	1138 S Broadway	138 room	Hotel	644	20	25	44	22	27	47
169.	1600 S Flower St	250 units 300 rooms 3,120 sf 10,000 sf	Apartments Hotel High Turnover Restaurant Medical Office	1,778	77	91	168	55	36	91
170.	1105 S Olive St	537 units 3,800 sf 3,800 sf 713 units 7,100 sf 7,100 sf	Site 2 Apartments Site 2 Restaurant Site 2 Retail Site 3 Apartments Site 3 Restaurant Site 3 Retail	5,241	122	278	700	258	160	418
171.	1323 S Flower St	132 rooms 47 units 3,685 sf	Hotel Apartments Rooftop Bar/Restaurant	1,287	33	40	73	61	39	100

sf = square feet, fp = fuel position, du = dwelling unit

9/2/2020

**APPENDIX H**

**TRAFFIC VOLUME DATA  
AND LEVEL OF SERVICE WORKSHEETS**

## **TRAFFIC VOLUME DATA**



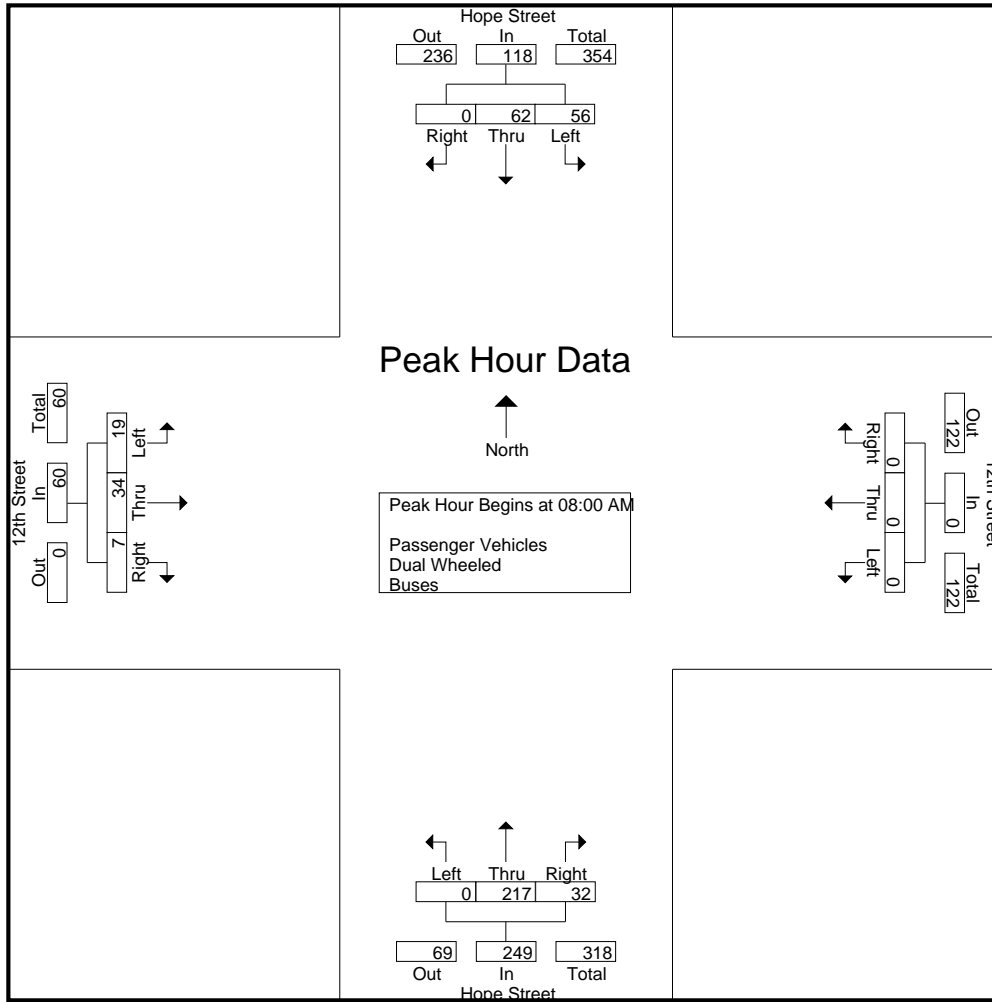
City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	8	18	0	26	0	0	0	0	0	21	7	28	3	7	6	16	70
07:15 AM	9	25	0	34	0	0	0	0	0	36	6	42	2	7	0	9	85
07:30 AM	9	17	0	26	0	0	0	0	0	65	6	71	3	5	0	8	105
07:45 AM	7	17	0	24	0	0	0	0	0	39	8	47	3	5	1	9	80
<b>Total</b>	<b>33</b>	<b>77</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>161</b>	<b>27</b>	<b>188</b>	<b>11</b>	<b>24</b>	<b>7</b>	<b>42</b>	<b>340</b>
08:00 AM	14	22	0	36	0	0	0	0	0	52	6	58	10	8	3	21	115
08:15 AM	15	10	0	25	0	0	0	0	0	46	7	53	5	10	1	16	94
08:30 AM	13	17	0	30	0	0	0	0	0	57	8	65	1	8	2	11	106
08:45 AM	14	13	0	27	0	0	0	0	0	62	11	73	3	8	1	12	112
<b>Total</b>	<b>56</b>	<b>62</b>	<b>0</b>	<b>118</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>32</b>	<b>249</b>	<b>19</b>	<b>34</b>	<b>7</b>	<b>60</b>	<b>427</b>
09:00 AM	3	14	0	17	0	0	0	0	0	43	4	47	3	12	2	17	81
09:15 AM	7	14	0	21	0	0	0	0	0	44	8	52	4	8	1	13	86
09:30 AM	4	13	0	17	0	0	0	0	0	36	9	45	3	7	0	10	72
09:45 AM	8	15	0	23	0	0	0	0	0	35	9	44	3	13	3	19	86
<b>Total</b>	<b>22</b>	<b>56</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>158</b>	<b>30</b>	<b>188</b>	<b>13</b>	<b>40</b>	<b>6</b>	<b>59</b>	<b>325</b>
<b>Grand Total</b>	<b>111</b>	<b>195</b>	<b>0</b>	<b>306</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>536</b>	<b>89</b>	<b>625</b>	<b>43</b>	<b>98</b>	<b>20</b>	<b>161</b>	<b>1092</b>
Apprch %	36.3	63.7	0		0	0	0		0	85.8	14.2		26.7	60.9	12.4		
Total %	10.2	17.9	0	28	0	0	0	0	0	49.1	8.2	57.2	3.9	9	1.8	14.7	
Passenger Vehicles	102	185	0	287	0	0	0	0	0	521	85	606	40	94	18	152	1045
% Passenger Vehicles	91.9	94.9	0	93.8	0	0	0	0	0	97.2	95.5	97	93	95.9	90	94.4	95.7
Dual Wheeled	4	9	0	13	0	0	0	0	0	15	4	19	3	4	2	9	41
% Dual Wheeled	3.6	4.6	0	4.2	0	0	0	0	0	2.8	4.5	3	7	4.1	10	5.6	3.8
Buses	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
% Buses	4.5	0.5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0.5

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	14	<b>22</b>	0	<b>36</b>	0	0	0	0	0	52	6	58	<b>10</b>	8	<b>3</b>	<b>21</b>	<b>115</b>
08:15 AM	15	10	0	25	0	0	0	0	0	46	7	53	5	<b>10</b>	1	16	94
08:30 AM	13	17	0	30	0	0	0	0	0	57	8	65	1	8	2	11	106
08:45 AM	14	13	0	27	0	0	0	0	0	<b>62</b>	<b>11</b>	<b>73</b>	3	8	1	12	112
<b>Total Volume</b>	<b>56</b>	<b>62</b>	<b>0</b>	<b>118</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>32</b>	<b>249</b>	<b>19</b>	<b>34</b>	<b>7</b>	<b>60</b>	<b>427</b>
% App. Total	47.5	52.5	0		0	0	0		0	87.1	12.9		31.7	56.7	11.7		
PHF	.933	.705	.000	.819	.000	.000	.000	.000	.000	.875	.727	.853	.475	.850	.583	.714	.928



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				08:00 AM				08:00 AM			
+0 mins.	9	<b>25</b>	0	34	0	0	0	0	0	52	6	58	<b>10</b>	8	<b>3</b>	<b>21</b>
+15 mins.	9	17	0	26	0	0	0	0	0	46	7	53	5	<b>10</b>	1	16
+30 mins.	7	17	0	24	0	0	0	0	0	57	8	65	1	8	2	11
+45 mins.	<b>14</b>	22	0	<b>36</b>	0	0	0	0	0	<b>62</b>	<b>11</b>	<b>73</b>	3	8	1	12
Total Volume	39	81	0	120	0	0	0	0	0	217	32	249	19	34	7	60
% App. Total	32.5	67.5	0		0	0	0		0	87.1	12.9		31.7	56.7	11.7	
PHF	.696	.810	.000	.833	.000	.000	.000	.000	.000	.875	.727	.853	.475	.850	.583	.714

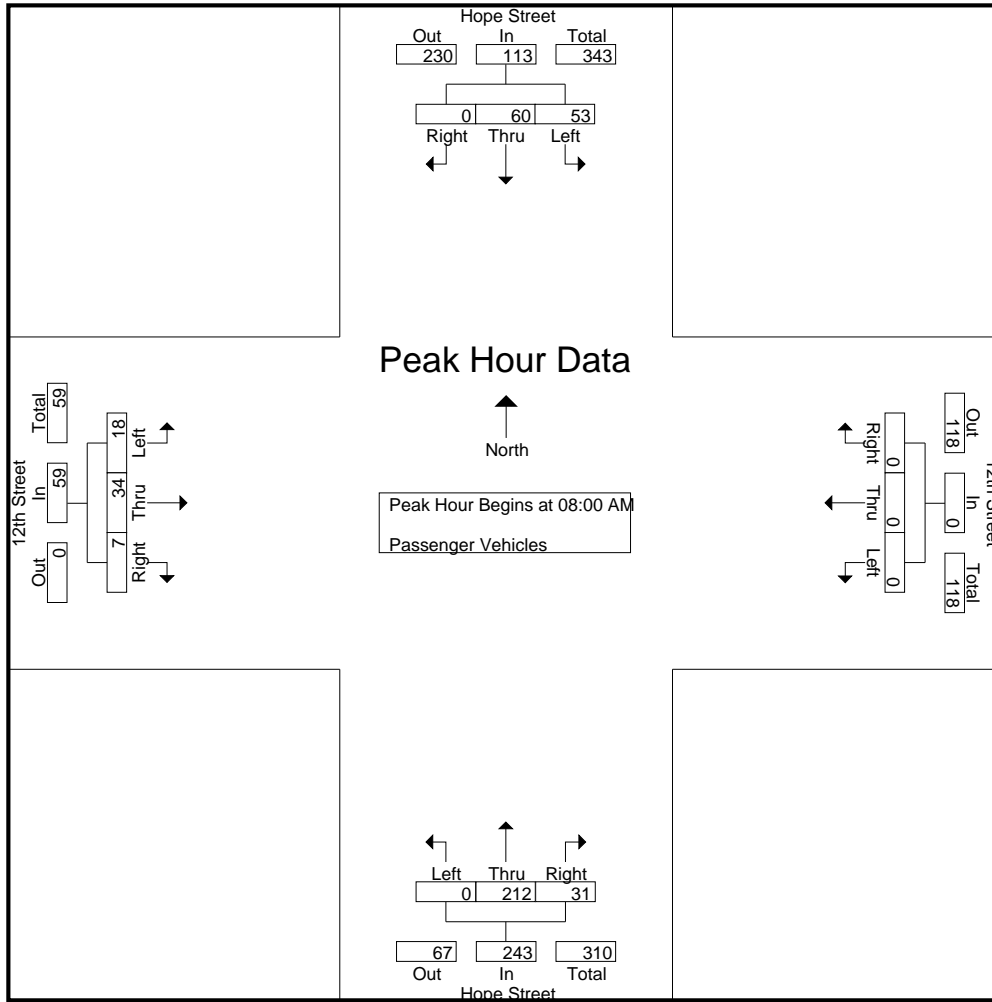
City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	6	17	0	23	0	0	0	0	0	20	6	26	2	7	5	14	63
07:15 AM	7	23	0	30	0	0	0	0	0	34	6	40	2	7	0	9	79
07:30 AM	8	16	0	24	0	0	0	0	0	63	6	69	3	5	0	8	101
07:45 AM	7	15	0	22	0	0	0	0	0	37	8	45	3	4	1	8	75
Total	28	71	0	99	0	0	0	0	0	154	26	180	10	23	6	39	318
08:00 AM	14	22	0	36	0	0	0	0	0	49	6	55	10	8	3	21	112
08:15 AM	14	9	0	23	0	0	0	0	0	45	6	51	5	10	1	16	90
08:30 AM	13	16	0	29	0	0	0	0	0	57	8	65	1	8	2	11	105
08:45 AM	12	13	0	25	0	0	0	0	0	61	11	72	2	8	1	11	108
Total	53	60	0	113	0	0	0	0	0	212	31	243	18	34	7	59	415
09:00 AM	3	13	0	16	0	0	0	0	0	42	4	46	3	12	2	17	79
09:15 AM	7	13	0	20	0	0	0	0	0	43	8	51	3	7	0	10	81
09:30 AM	3	13	0	16	0	0	0	0	0	36	8	44	3	6	0	9	69
09:45 AM	8	15	0	23	0	0	0	0	0	34	8	42	3	12	3	18	83
Total	21	54	0	75	0	0	0	0	0	155	28	183	12	37	5	54	312
Grand Total	102	185	0	287	0	0	0	0	0	521	85	606	40	94	18	152	1045
Apprch %	35.5	64.5	0		0	0	0		0	86	14		26.3	61.8	11.8		
Total %	9.8	17.7	0	27.5	0	0	0	0	0	49.9	8.1	58	3.8	9	1.7	14.5	

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	14	22	0	36	0	0	0	0	0	49	6	55	10	8	3	21	112
08:15 AM	14	9	0	23	0	0	0	0	0	45	6	51	5	10	1	16	90
08:30 AM	13	16	0	29	0	0	0	0	0	57	8	65	1	8	2	11	105
08:45 AM	12	13	0	25	0	0	0	0	0	61	11	72	2	8	1	11	108
Total Volume	53	60	0	113	0	0	0	0	0	212	31	243	18	34	7	59	415
% App. Total	46.9	53.1	0		0	0	0		0	87.2	12.8		30.5	57.6	11.9		
PHF	.946	.682	.000	.785	.000	.000	.000	.000	.000	.869	.705	.844	.450	.850	.583	.702	.926



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	14	22	0	36	0	0	0	0	0	49	6	55	10	8	3	21
+15 mins.	14	9	0	23	0	0	0	0	0	45	6	51	5	10	1	16
+30 mins.	13	16	0	29	0	0	0	0	0	57	8	65	1	8	2	11
+45 mins.	12	13	0	25	0	0	0	0	0	61	11	72	2	8	1	11
Total Volume	53	60	0	113	0	0	0	0	0	212	31	243	18	34	7	59
% App. Total	46.9	53.1	0		0	0	0		0	87.2	12.8		30.5	57.6	11.9	
PHF	.946	.682	.000	.785	.000	.000	.000	.000	.000	.869	.705	.844	.450	.850	.583	.702

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

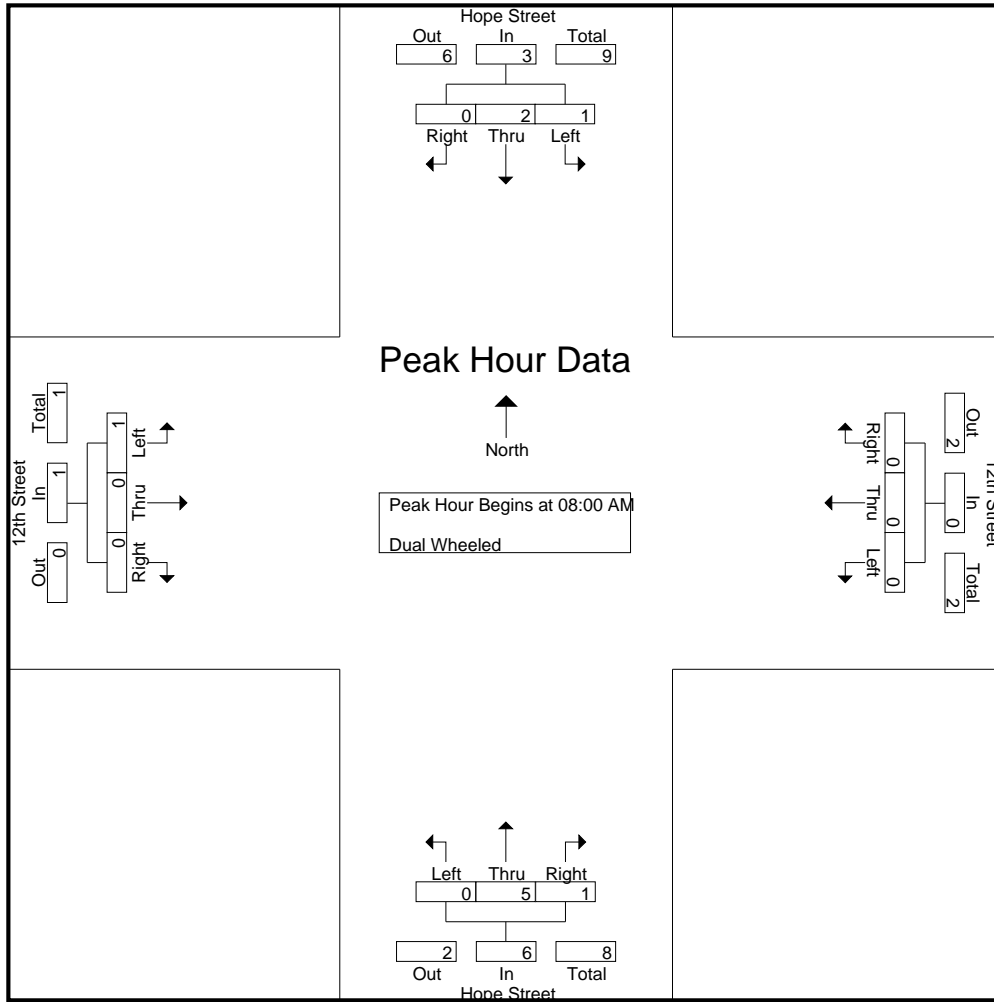
File Name : 01\_LAC\_Hope\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Dual Wheeled

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	1	0	3	0	0	0	0	0	1	1	2	1	0	1	2	7
07:15 AM	1	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:30 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
07:45 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	1	0	1	5
Total	3	5	0	8	0	0	0	0	0	7	1	8	1	1	1	3	19
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:15 AM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	1	0	0	1	3
Total	1	2	0	3	0	0	0	0	0	5	1	6	1	0	0	1	10
09:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
09:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	1	1	1	3	5
09:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
09:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
Total	0	2	0	2	0	0	0	0	0	3	2	5	1	3	1	5	12
Grand Total	4	9	0	13	0	0	0	0	0	15	4	19	3	4	2	9	41
Apprch %	30.8	69.2	0		0	0	0		0	78.9	21.1		33.3	44.4	22.2		
Total %	9.8	22	0	31.7	0	0	0	0	0	36.6	9.8	46.3	7.3	9.8	4.9	22	

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:15 AM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	1	0	0	1	3
Total Volume	1	2	0	3	0	0	0	0	0	5	1	6	1	0	0	1	10
% App. Total	33.3	66.7	0		0	0	0		0	83.3	16.7		100	0	0		
PHF	.250	.500	.000	.750	.000	.000	.000	.000	.000	.417	.250	.500	.250	.000	.000	.250	.833

Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00 AM



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	<b>3</b>	0	<b>3</b>	0	0	0	0
+15 mins.	0	<b>1</b>	0	<b>1</b>	0	0	0	0	0	1	<b>1</b>	<b>2</b>	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	<b>1</b>	0	0	<b>1</b>	0	0	0	0	0	1	0	<b>1</b>	<b>1</b>	0	0	<b>1</b>
Total Volume	1	2	0	3	0	0	0	0	0	5	1	6	1	0	0	1
% App. Total	33.3	66.7	0		0	0	0		0	83.3	16.7		100	0	0	
PHF	.250	.500	.000	.750	.000	.000	.000	.000	.000	.417	.250	.500	.250	.000	.000	.250

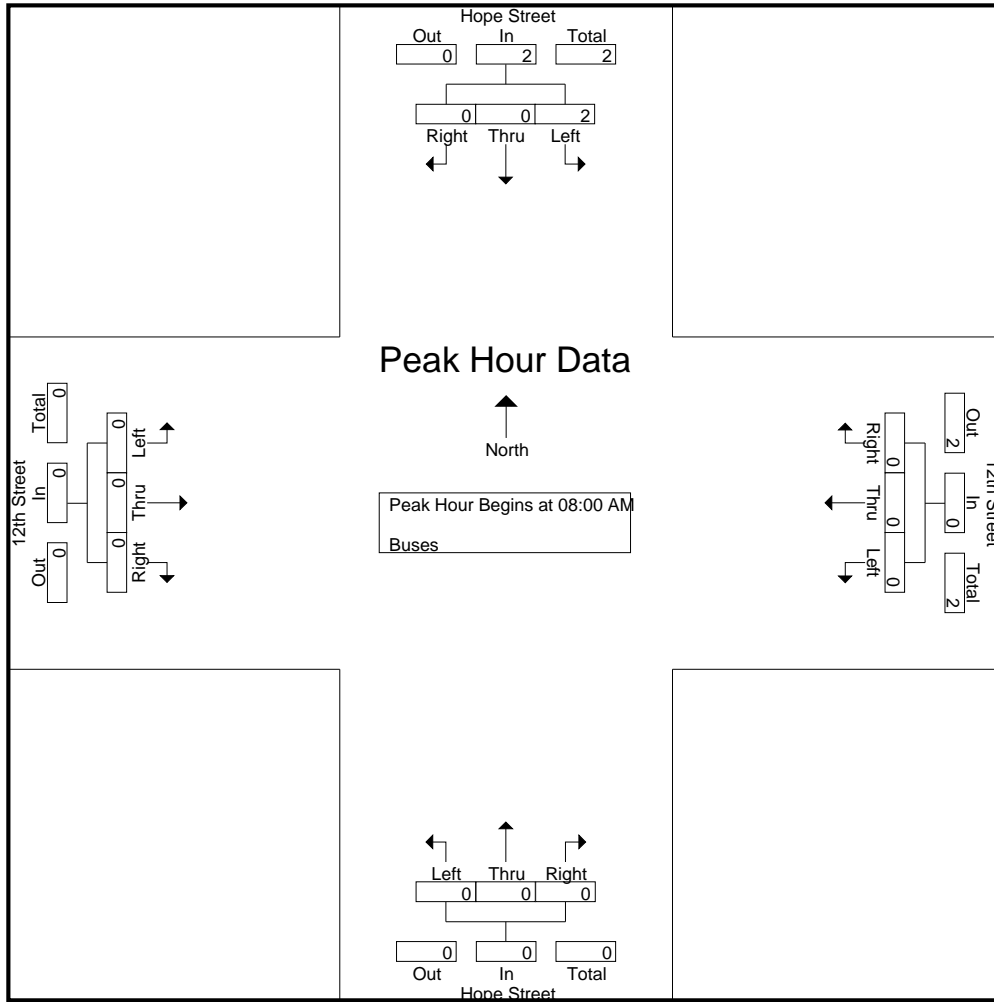
City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Buses

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Apprch %	83.3	16.7	0		0	0	0		0	0	0		0	0	0		
Total %	83.3	16.7	0	100	0	0	0		0	0	0		0	0	0		

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0		
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0	
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

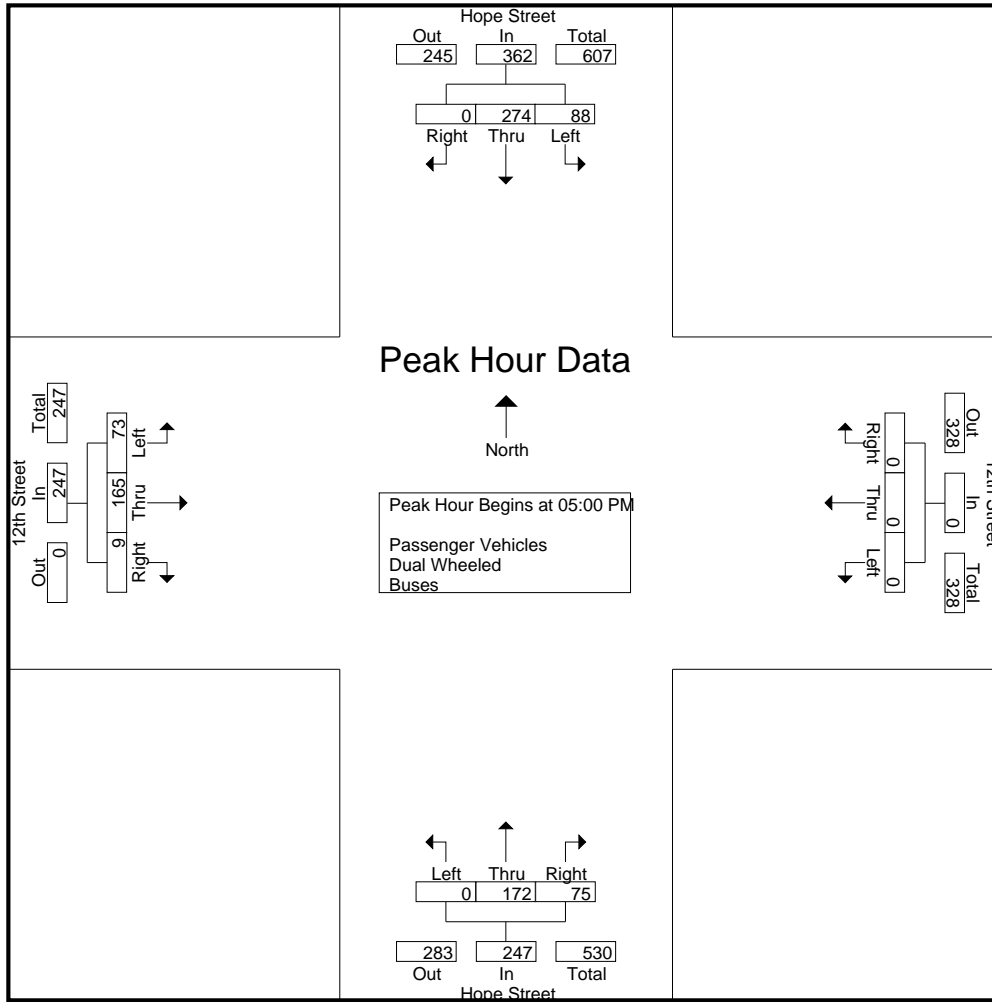
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	10	25	0	35	0	0	0	0	0	25	4	29	6	18	5	29	93
03:15 PM	10	30	0	40	0	0	0	0	0	48	15	63	11	18	1	30	133
03:30 PM	15	28	0	43	0	0	0	0	0	34	9	43	12	33	8	53	139
03:45 PM	14	38	0	52	0	0	0	0	0	38	8	46	9	16	1	26	124
Total	49	121	0	170	0	0	0	0	0	145	36	181	38	85	15	138	489
04:00 PM	24	40	0	64	0	0	0	0	0	31	13	44	5	25	2	32	140
04:15 PM	17	41	0	58	0	0	0	0	0	51	14	65	6	16	2	24	147
04:30 PM	21	49	0	70	0	0	0	0	0	37	8	45	5	19	3	27	142
04:45 PM	31	41	0	72	0	0	0	0	0	38	5	43	10	41	4	55	170
Total	93	171	0	264	0	0	0	0	0	157	40	197	26	101	11	138	599
05:00 PM	24	69	0	93	0	0	0	0	0	39	13	52	22	36	5	63	208
05:15 PM	20	67	0	87	0	0	0	0	0	41	16	57	19	46	2	67	211
05:30 PM	21	63	0	84	0	0	0	0	0	49	29	78	16	43	1	60	222
05:45 PM	23	75	0	98	0	0	0	0	0	43	17	60	16	40	1	57	215
Total	88	274	0	362	0	0	0	0	0	172	75	247	73	165	9	247	856
Grand Total	230	566	0	796	0	0	0	0	0	474	151	625	137	351	35	523	1944
Apprch %	28.9	71.1	0		0	0	0		0	75.8	24.2		26.2	67.1	6.7		
Total %	11.8	29.1	0	40.9	0	0	0	0	0	24.4	7.8	32.2	7	18.1	1.8	26.9	
Passenger Vehicles	226	557	0	783	0	0	0	0	0	463	145	608	136	342	32	510	1901
% Passenger Vehicles	98.3	98.4	0	98.4	0	0	0	0	0	97.7	96	97.3	99.3	97.4	91.4	97.5	97.8
Dual Wheeled	3	9	0	12	0	0	0	0	0	11	6	17	1	9	3	13	42
% Dual Wheeled	1.3	1.6	0	1.5	0	0	0	0	0	2.3	4	2.7	0.7	2.6	8.6	2.5	2.2
Buses	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Buses	0.4	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	69	0	93	0	0	0	0	0	39	13	52	22	36	5	63	208
05:15 PM	20	67	0	87	0	0	0	0	0	41	16	57	19	46	2	67	211
05:30 PM	21	63	0	84	0	0	0	0	0	49	29	78	16	43	1	60	222
05:45 PM	23	75	0	98	0	0	0	0	0	43	17	60	16	40	1	57	215
Total Volume	88	274	0	362	0	0	0	0	0	172	75	247	73	165	9	247	856
% App. Total	24.3	75.7	0		0	0	0		0	69.6	30.4		29.6	66.8	3.6		
PHF	.917	.913	.000	.923	.000	.000	.000	.000	.000	.878	.647	.792	.830	.897	.450	.922	.964

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				03:00 PM				05:00 PM				05:00 PM			
+0 mins.	<b>24</b>	69	0	93	0	0	0	0	0	39	13	52	<b>22</b>	36	<b>5</b>	63
+15 mins.	20	67	0	87	0	0	0	0	0	41	16	57	19	<b>46</b>	2	<b>67</b>
+30 mins.	21	63	0	84	0	0	0	0	0	<b>49</b>	<b>29</b>	<b>78</b>	16	43	1	60
+45 mins.	23	<b>75</b>	0	<b>98</b>	0	0	0	0	0	43	17	60	16	40	1	57
Total Volume	88	274	0	362	0	0	0	0	0	172	75	247	73	165	9	247
% App. Total	24.3	75.7	0		0	0	0	0	0	69.6	30.4		29.6	66.8	3.6	
PHF	.917	.913	.000	.923	.000	.000	.000	.000	.000	.878	.647	.792	.830	.897	.450	.922

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles

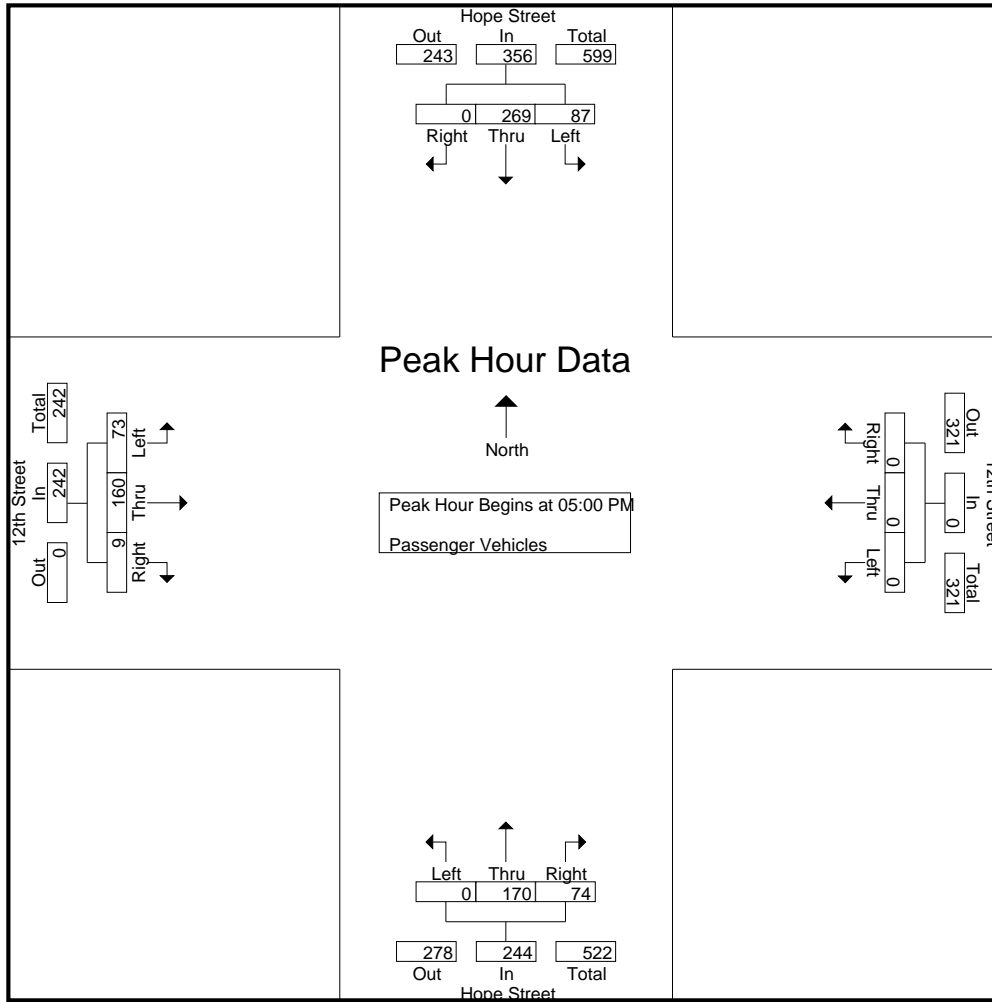
Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	10	25	0	35	0	0	0	0	0	24	4	28	6	18	4	28	91
03:15 PM	9	30	0	39	0	0	0	0	0	45	14	59	11	18	1	30	128
03:30 PM	15	28	0	43	0	0	0	0	0	34	8	42	11	29	7	47	132
03:45 PM	14	37	0	51	0	0	0	0	0	37	8	45	9	16	1	26	122
Total	48	120	0	168	0	0	0	0	0	140	34	174	37	81	13	131	473
04:00 PM	23	39	0	62	0	0	0	0	0	29	11	40	5	25	2	32	134
04:15 PM	16	41	0	57	0	0	0	0	0	50	14	64	6	16	1	23	144
04:30 PM	21	48	0	69	0	0	0	0	0	37	7	44	5	19	3	27	140
04:45 PM	31	40	0	71	0	0	0	0	0	37	5	42	10	41	4	55	168
Total	91	168	0	259	0	0	0	0	0	153	37	190	26	101	10	137	586
05:00 PM	24	68	0	92	0	0	0	0	0	39	12	51	22	35	5	62	205
05:15 PM	20	65	0	85	0	0	0	0	0	41	16	57	19	44	2	65	207
05:30 PM	20	62	0	82	0	0	0	0	0	47	29	76	16	42	1	59	217
05:45 PM	23	74	0	97	0	0	0	0	0	43	17	60	16	39	1	56	213
Total	87	269	0	356	0	0	0	0	0	170	74	244	73	160	9	242	842
Grand Total	226	557	0	783	0	0	0	0	0	463	145	608	136	342	32	510	1901
Apprch %	28.9	71.1	0		0	0	0		0	76.2	23.8		26.7	67.1	6.3		
Total %	11.9	29.3	0	41.2	0	0	0		0	24.4	7.6	32	7.2	18	1.7	26.8	

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	<b>24</b>	68	0	92	0	0	0	0	0	39	12	51	<b>22</b>	35	<b>5</b>	62	205
05:15 PM	20	65	0	85	0	0	0	0	0	41	16	57	19	<b>44</b>	2	<b>65</b>	207
05:30 PM	20	62	0	82	0	0	0	0	0	<b>47</b>	<b>29</b>	<b>76</b>	16	42	1	59	<b>217</b>
05:45 PM	23	<b>74</b>	0	<b>97</b>	0	0	0	0	0	43	17	60	16	39	1	56	213
Total Volume	87	269	0	356	0	0	0	0	0	170	74	244	73	160	9	242	842
% App. Total	24.4	75.6	0		0	0	0		0	69.7	30.3		30.2	66.1	3.7		
PHF	.906	.909	.000	.918	.000	.000	.000	.000	.000	.904	.638	.803	.830	.909	.450	.931	.970

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 05:00 PM

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	<b>24</b>	68	0	92	0	0	0	0	0	39	12	51	<b>22</b>	35	<b>5</b>	62
+15 mins.	20	65	0	85	0	0	0	0	0	41	16	57	19	<b>44</b>	2	<b>65</b>
+30 mins.	20	62	0	82	0	0	0	0	0	<b>47</b>	<b>29</b>	<b>76</b>	16	42	1	59
+45 mins.	23	<b>74</b>	0	<b>97</b>	0	0	0	0	0	43	17	60	16	39	1	56
Total Volume	87	269	0	356	0	0	0	0	0	170	74	244	73	160	9	242
% App. Total	24.4	75.6	0		0	0	0	0	0	69.7	30.3		30.2	66.1	3.7	
PHF	.906	.909	.000	.918	.000	.000	.000	.000	.000	.904	.638	.803	.830	.909	.450	.931

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Dual Wheeled

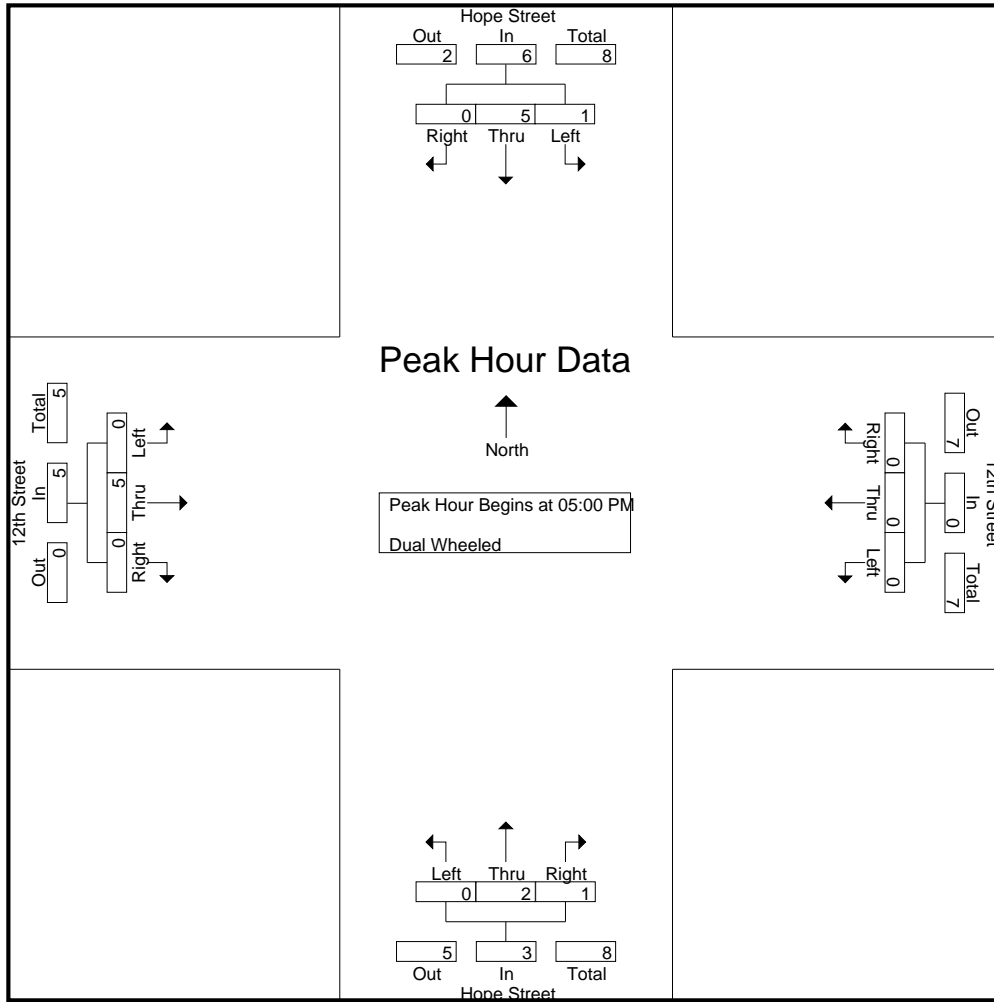
Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
03:15 PM	1	0	0	1	0	0	0	0	0	3	1	4	0	0	0	0	5
03:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	1	4	1	6	7
03:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	1	1	0	2	0	0	0	0	0	5	2	7	1	4	2	7	16
04:00 PM	1	1	0	2	0	0	0	0	0	2	2	4	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
04:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	1	3	0	4	0	0	0	0	0	4	3	7	0	0	1	1	12
05:00 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	1	0	1	3
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	4
05:30 PM	1	1	0	2	0	0	0	0	0	2	0	2	0	1	0	1	5
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	1	5	0	6	0	0	0	0	0	2	1	3	0	5	0	5	14
Grand Total	3	9	0	12	0	0	0	0	0	11	6	17	1	9	3	13	42
Apprch %	25	75	0		0	0	0		0	64.7	35.3		7.7	69.2	23.1		
Total %	7.1	21.4	0	28.6	0	0	0	0	0	26.2	14.3	40.5	2.4	21.4	7.1	31	

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	1	0	1	3
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	4
05:30 PM	1	1	0	2	0	0	0	0	0	2	0	2	0	1	0	1	5
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	1	5	0	6	0	0	0	0	0	2	1	3	0	5	0	5	14
% App. Total	16.7	83.3	0		0	0	0		0	66.7	33.3		0	100	0		
PHF	.250	.625	.000	.750	.000	.000	.000	.000	.000	.250	.250	.375	.000	.625	.000	.625	.700

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 05:00 PM

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	1	1	0	1	0	1
+15 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	1	1	0	2	0	0	0	0	0	2	0	2	0	1	0	1
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	1	5	0	6	0	0	0	0	0	2	1	3	0	5	0	5
% App. Total	16.7	83.3	0		0	0	0		0	66.7	33.3		0	100	0	
PHF	.250	.625	.000	.750	.000	.000	.000	.000	.000	.250	.250	.375	.000	.625	.000	.625

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

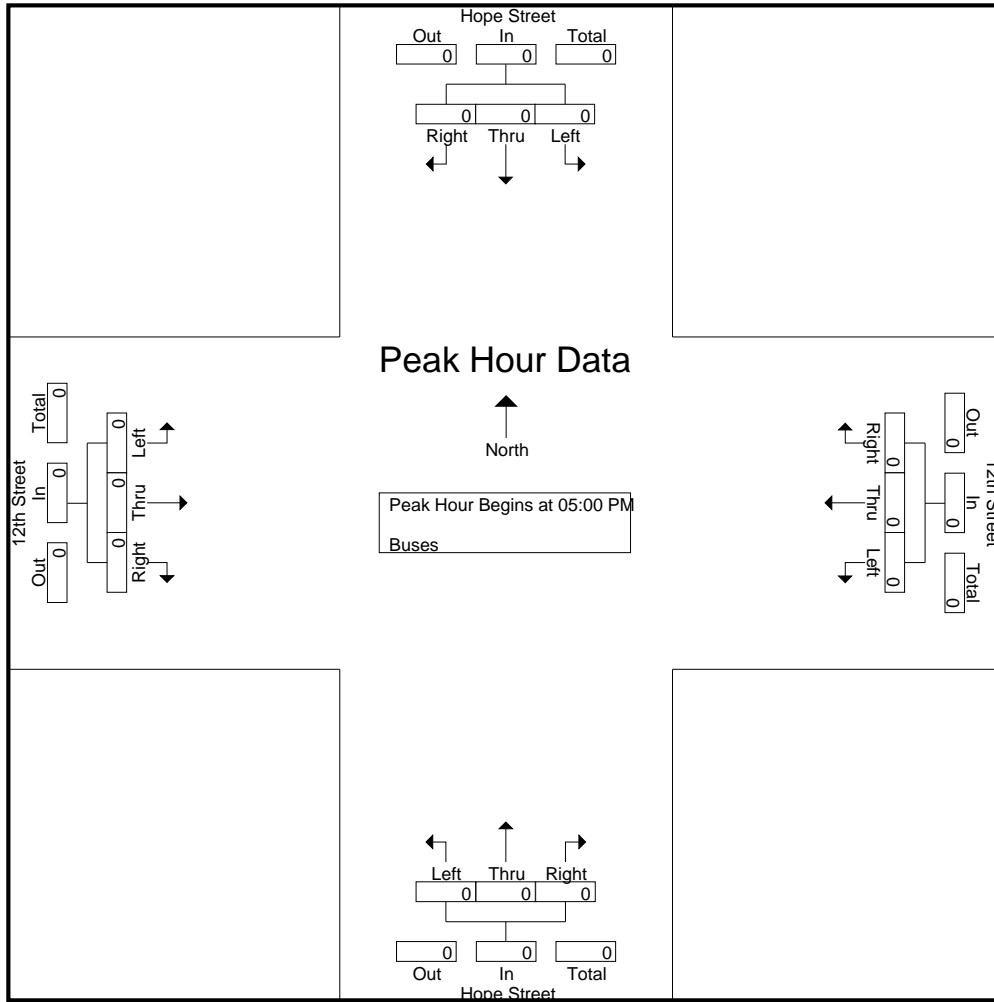
Groups Printed- Buses

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	100	0	0		0	0	0		0	0	0		0	0	0		
Total %	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

Start Time	Hope Street Southbound				12th Street Westbound				Hope Street Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Los Angeles  
 N/S: Hope Street  
 E/W: 12th Street  
 Weather: Clear

File Name : 01\_LAC\_Hope\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000





**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

North/South Hope Street

East/West 12th Street

Day: Tuesday Date: December 17, 2019 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8725

	N/B	S/B	E/B	W/B
DUAL-WHEELED BIKES	36	25	22	0
BIKES	20	18	37	14
BUSES	0	7	0	0

	N/B TIME		S/B TIME		E/B TIME		W/B TIME	
AM PK 15 MIN	73	8.45	36	8.00	21	8.00	0	7.00
PM PK 15 MIN	78	5.30	98	5.45	67	5.15	0	3.00
AM PK HOUR	249	8.00	120	7.15	60	8.00	0	7.00
PM PK HOUR	247	5.00	362	5.00	247	5.00	0	3.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	161	27	188
8-9	0	217	32	249
9-10	0	158	30	188
3-4	0	145	36	181
4-5	0	157	40	197
5-6	0	172	75	247
TOTAL	0	1010	240	1250

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	33	77	0	110
8-9	56	62	0	118
9-10	22	56	0	78
3-4	49	121	0	170
4-5	93	171	0	264
5-6	88	274	0	362
TOTAL	341	761	0	1102

**TOTAL**

N-S	298
367	
266	
351	
461	
609	
2352	

**XING S/L**

Ped	Sch
38	0
37	0
35	0
43	0
57	0
64	0
274	0

**XING N/L**

Ped	Sch
78	0
84	0
79	0
56	0
94	0
94	0
485	0

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	11	24	7	42
8-9	19	34	7	60
9-10	13	40	6	59
3-4	38	85	15	138
4-5	26	101	11	138
5-6	73	165	9	247
TOTAL	180	449	55	684

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

**TOTAL**

E-W	42
60	
59	
138	
138	
247	
684	

**XING W/L**

Ped	Sch
29	0
24	0
26	0
34	0
29	1
37	0
179	1

**XING E/L**

Ped	Sch
27	0
24	0
53	0
49	0
34	0
45	0
232	0

City of Los Angeles  
 Department of Transportation  
**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Hope Street		
<b>East/West:</b>	12th Street		
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019
<b>School Day:</b>	Yes	<b>District:</b>	Central
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI
		<b>Weather:</b>	CLEAR
		<b>I/S Code:</b>	8725

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	1	2	3
8-9	0	0	2	2
9-10	0	1	0	1
3-4	0	6	1	7
4-5	0	2	1	3
5-6	0	3	1	4
<b>TOTAL</b>	<b>0</b>	<b>13</b>	<b>7</b>	<b>20</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	1	2	0	3	6
8-9	0	2	0	2	4
9-10	2	0	0	2	3
3-4	0	7	0	7	14
4-5	0	2	0	2	5
5-6	1	1	0	2	6
<b>TOTAL</b>	<b>4</b>	<b>14</b>	<b>0</b>	<b>18</b>	<b>38</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	1	7	0	8
8-9	0	7	0	7
9-10	3	6	0	9
3-4	0	3	0	3
4-5	2	4	0	6
5-6	1	3	0	4
<b>TOTAL</b>	<b>7</b>	<b>30</b>	<b>0</b>	<b>37</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	2	1	0	3	11
8-9	0	0	1	1	8
9-10	0	2	0	2	11
3-4	1	2	0	3	6
4-5	0	0	0	0	6
5-6	1	4	0	5	9
<b>TOTAL</b>	<b>4</b>	<b>9</b>	<b>1</b>	<b>14</b>	<b>51</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	0	0	0	0	0
- No helmet riders	12	12	28	11	63
- Sidewalk Riding	7	6	6	10	29
- Wrong way riding	2	11	3	11	27

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Hope Street				
<b>East/West:</b>	12th Street				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Central	<b>I/S Code:</b>	8725
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	16	10	9	8	43
7:15-7:30	20	10	10	5	45
7:30-7:45	16	8	3	10	37
7:45-8:00	26	10	5	6	47
8:00-8:15	20	11	4	6	41
8:15-8:30	24	4	6	9	43
8:30-8:45	21	14	8	6	49
8:45-9:00	19	8	6	3	36
9:00-9:15	22	13	5	5	45
9:15-9:30	22	7	12	4	45
9:30-9:45	12	7	19	7	45
9:45-10:00	23	8	17	10	58

**Hours**

7 - 8	78	38	27	29	172
8 - 9	84	37	24	24	169
9 - 10	79	35	53	26	193
<b>TOTAL</b>	<b>241</b>	<b>110</b>	<b>104</b>	<b>79</b>	<b>534</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	12	5	11	6	34
3:15-3:30	15	10	9	7	41
3:30-3:45	14	16	12	13	55
3:45-4:00	15	12	17	8	52
4:00-4:15	25	9	11	12	57
4:15-4:30	17	17	7	8	49
4:30-4:45	28	17	5	5	55
4:45-5:00	24	14	11	5	54
5:00-5:15	36	18	6	11	71
5:15-5:30	19	10	15	4	48
5:30-5:45	20	27	15	14	76
5:45-6:00	19	9	9	8	45

**Hours**

3 - 4	56	43	49	34	182
4 - 5	94	57	34	30	215
5 - 6	94	64	45	37	240
<b>TOTAL</b>	<b>244</b>	<b>164</b>	<b>128</b>	<b>101</b>	<b>637</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
0	0	0	1	1
11	13	16	33	73

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

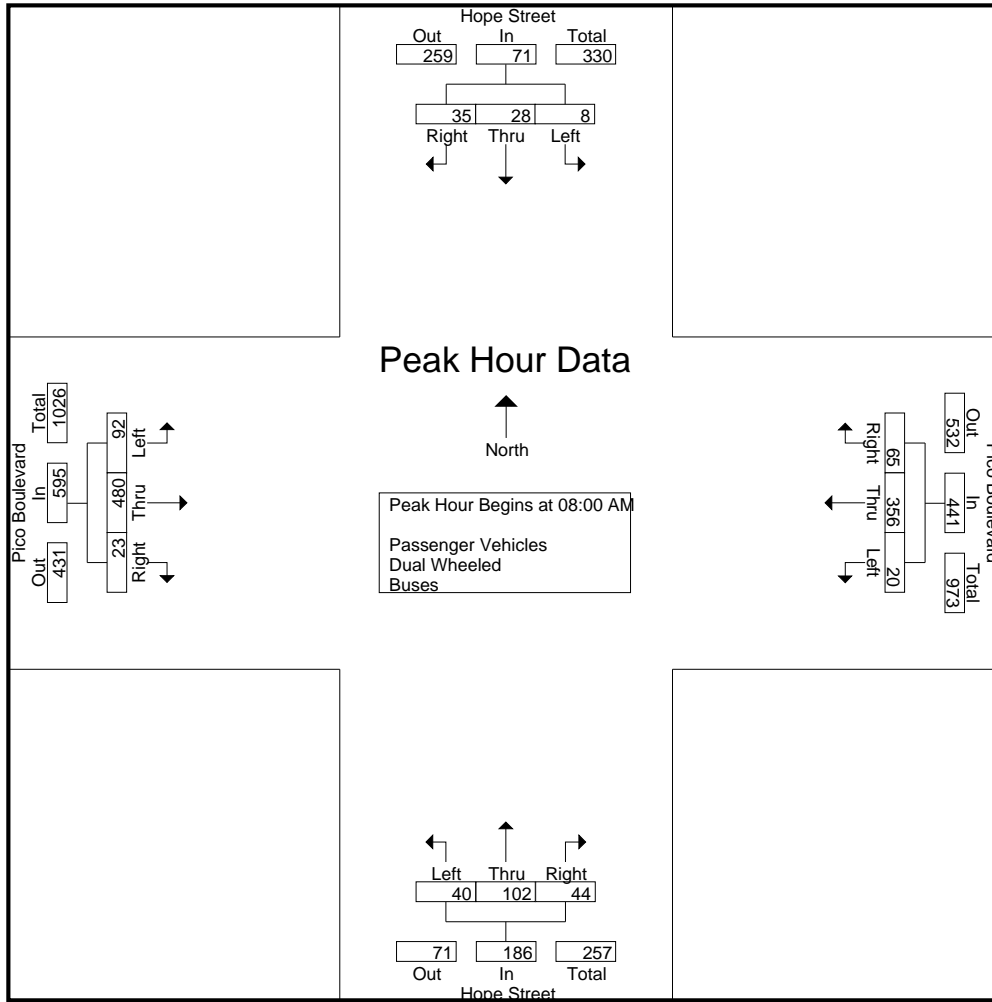
City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	11	9	23	5	89	4	98	8	12	4	24	12	56	4	72	217
07:15 AM	3	11	7	21	4	80	8	92	10	23	1	34	10	69	7	86	233
07:30 AM	3	13	9	25	5	89	7	101	16	42	9	67	19	96	6	121	314
07:45 AM	2	9	7	18	1	88	13	102	18	22	8	48	12	110	6	128	296
<b>Total</b>	<b>11</b>	<b>44</b>	<b>32</b>	<b>87</b>	<b>15</b>	<b>346</b>	<b>32</b>	<b>393</b>	<b>52</b>	<b>99</b>	<b>22</b>	<b>173</b>	<b>53</b>	<b>331</b>	<b>23</b>	<b>407</b>	<b>1060</b>
08:00 AM	2	12	11	25	6	94	18	118	14	29	9	52	16	112	2	130	325
08:15 AM	2	5	7	14	3	96	8	107	8	25	7	40	19	135	13	167	328
08:30 AM	3	7	7	17	7	84	20	111	13	21	12	46	26	103	3	132	306
08:45 AM	1	4	10	15	4	82	19	105	5	27	16	48	31	130	5	166	334
<b>Total</b>	<b>8</b>	<b>28</b>	<b>35</b>	<b>71</b>	<b>20</b>	<b>356</b>	<b>65</b>	<b>441</b>	<b>40</b>	<b>102</b>	<b>44</b>	<b>186</b>	<b>92</b>	<b>480</b>	<b>23</b>	<b>595</b>	<b>1293</b>
09:00 AM	1	2	14	17	1	85	17	103	8	15	11	34	13	109	2	124	278
09:15 AM	3	5	4	12	2	81	14	97	8	27	10	45	17	80	6	103	257
09:30 AM	3	3	7	13	0	62	19	81	5	10	14	29	19	94	3	116	239
09:45 AM	4	10	7	21	2	48	11	61	7	20	23	50	11	87	2	100	232
<b>Total</b>	<b>11</b>	<b>20</b>	<b>32</b>	<b>63</b>	<b>5</b>	<b>276</b>	<b>61</b>	<b>342</b>	<b>28</b>	<b>72</b>	<b>58</b>	<b>158</b>	<b>60</b>	<b>370</b>	<b>13</b>	<b>443</b>	<b>1006</b>
<b>Grand Total</b>	<b>30</b>	<b>92</b>	<b>99</b>	<b>221</b>	<b>40</b>	<b>978</b>	<b>158</b>	<b>1176</b>	<b>120</b>	<b>273</b>	<b>124</b>	<b>517</b>	<b>205</b>	<b>1181</b>	<b>59</b>	<b>1445</b>	<b>3359</b>
Apprch %	13.6	41.6	44.8		3.4	83.2	13.4		23.2	52.8	24		14.2	81.7	4.1		
Total %	0.9	2.7	2.9	6.6	1.2	29.1	4.7	35	3.6	8.1	3.7	15.4	6.1	35.2	1.8	43	
Passenger Vehicles	28	89	91	208	40	916	149	1105	116	264	123	503	204	1140	56	1400	3216
% Passenger Vehicles	93.3	96.7	91.9	94.1	100	93.7	94.3	94	96.7	96.7	99.2	97.3	99.5	96.5	94.9	96.9	95.7
Dual Wheeled	2	2	8	12	0	29	9	38	4	9	1	14	1	16	1	18	82
% Dual Wheeled	6.7	2.2	8.1	5.4	0	3	5.7	3.2	3.3	3.3	0.8	2.7	0.5	1.4	1.7	1.2	2.4
Buses	0	1	0	1	0	33	0	33	0	0	0	0	0	25	2	27	61
% Buses	0	1.1	0	0.5	0	3.4	0	2.8	0	0	0	0	0	2.1	3.4	1.9	1.8

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	12	11	25	6	94	18	118	14	29	9	52	16	112	2	130	325
08:15 AM	2	5	7	14	3	96	8	107	8	25	7	40	19	135	13	167	328
08:30 AM	3	7	7	17	7	84	20	111	13	21	12	46	26	103	3	132	306
08:45 AM	1	4	10	15	4	82	19	105	5	27	16	48	31	130	5	166	334
<b>Total Volume</b>	<b>8</b>	<b>28</b>	<b>35</b>	<b>71</b>	<b>20</b>	<b>356</b>	<b>65</b>	<b>441</b>	<b>40</b>	<b>102</b>	<b>44</b>	<b>186</b>	<b>92</b>	<b>480</b>	<b>23</b>	<b>595</b>	<b>1293</b>
% App. Total	11.3	39.4	49.3		4.5	80.7	14.7		21.5	54.8	23.7		15.5	80.7	3.9		
PHF	.667	.583	.795	.710	.714	.927	.813	.934	.714	.879	.688	.894	.742	.889	.442	.891	.968



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM				08:00 AM				07:30 AM				08:00 AM			
+0 mins.	3	11	7	21	6	94	18	118	16	42	9	67	16	112	2	130
+15 mins.	3	13	9	25	3	96	8	107	18	22	8	48	19	135	13	167
+30 mins.	2	9	7	18	7	84	20	111	14	29	9	52	26	103	3	132
+45 mins.	2	12	11	25	4	82	19	105	8	25	7	40	31	130	5	166
Total Volume	10	45	34	89	20	356	65	441	56	118	33	207	92	480	23	595
% App. Total	11.2	50.6	38.2		4.5	80.7	14.7		27.1	57	15.9		15.5	80.7	3.9	
PHF	.833	.865	.773	.890	.714	.927	.813	.934	.778	.702	.917	.772	.742	.889	.442	.891

City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

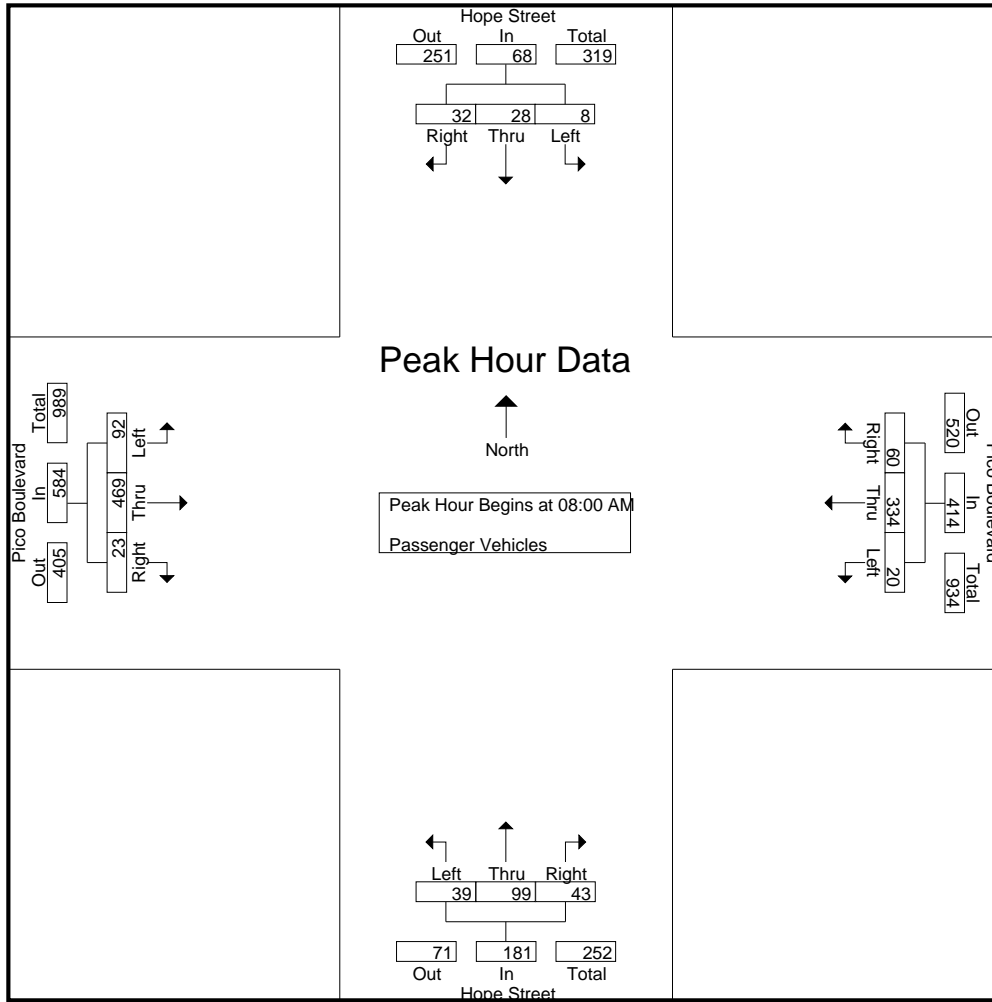
File Name : 02\_LAC\_Hope\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	10	8	21	5	86	4	95	8	11	4	23	12	49	2	63	202
07:15 AM	3	9	7	19	4	74	7	85	10	23	1	34	10	64	6	80	218
07:30 AM	2	13	9	24	5	83	6	94	15	41	9	65	19	94	6	119	302
07:45 AM	2	9	6	17	1	81	12	94	18	21	8	47	12	107	6	125	283
<b>Total</b>	<b>10</b>	<b>41</b>	<b>30</b>	<b>81</b>	<b>15</b>	<b>324</b>	<b>29</b>	<b>368</b>	<b>51</b>	<b>96</b>	<b>22</b>	<b>169</b>	<b>53</b>	<b>314</b>	<b>20</b>	<b>387</b>	<b>1005</b>
08:00 AM	2	12	10	24	6	91	15	112	14	28	8	50	16	110	2	128	314
08:15 AM	2	5	6	13	3	90	7	100	8	24	7	39	19	131	13	163	315
08:30 AM	3	7	7	17	7	75	20	102	13	20	12	45	26	101	3	130	294
08:45 AM	1	4	9	14	4	78	18	100	4	27	16	47	31	127	5	163	324
<b>Total</b>	<b>8</b>	<b>28</b>	<b>32</b>	<b>68</b>	<b>20</b>	<b>334</b>	<b>60</b>	<b>414</b>	<b>39</b>	<b>99</b>	<b>43</b>	<b>181</b>	<b>92</b>	<b>469</b>	<b>23</b>	<b>584</b>	<b>1247</b>
09:00 AM	1	2	14	17	1	79	17	97	6	15	11	32	12	106	2	120	266
09:15 AM	3	5	3	11	2	78	14	94	8	25	10	43	17	77	6	100	248
09:30 AM	3	3	6	12	0	58	19	77	5	10	14	29	19	92	3	114	232
09:45 AM	3	10	6	19	2	43	10	55	7	19	23	49	11	82	2	95	218
<b>Total</b>	<b>10</b>	<b>20</b>	<b>29</b>	<b>59</b>	<b>5</b>	<b>258</b>	<b>60</b>	<b>323</b>	<b>26</b>	<b>69</b>	<b>58</b>	<b>153</b>	<b>59</b>	<b>357</b>	<b>13</b>	<b>429</b>	<b>964</b>
<b>Grand Total</b>	<b>28</b>	<b>89</b>	<b>91</b>	<b>208</b>	<b>40</b>	<b>916</b>	<b>149</b>	<b>1105</b>	<b>116</b>	<b>264</b>	<b>123</b>	<b>503</b>	<b>204</b>	<b>1140</b>	<b>56</b>	<b>1400</b>	<b>3216</b>
Apprch %	13.5	42.8	43.8		3.6	82.9	13.5		23.1	52.5	24.5		14.6	81.4	4		
Total %	0.9	2.8	2.8	6.5	1.2	28.5	4.6	34.4	3.6	8.2	3.8	15.6	6.3	35.4	1.7	43.5	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	2	<b>12</b>	<b>10</b>	<b>24</b>	6	<b>91</b>	15	<b>112</b>	<b>14</b>	<b>28</b>	8	<b>50</b>	16	110	2	128	314
08:15 AM	2	5	6	13	3	90	7	100	8	24	7	39	19	<b>131</b>	<b>13</b>	<b>163</b>	315
08:30 AM	<b>3</b>	7	7	17	<b>7</b>	75	<b>20</b>	102	13	20	12	45	26	101	3	130	294
08:45 AM	1	4	9	14	4	78	18	100	4	27	<b>16</b>	47	<b>31</b>	127	5	163	<b>324</b>
<b>Total Volume</b>	<b>8</b>	<b>28</b>	<b>32</b>	<b>68</b>	<b>20</b>	<b>334</b>	<b>60</b>	<b>414</b>	<b>39</b>	<b>99</b>	<b>43</b>	<b>181</b>	<b>92</b>	<b>469</b>	<b>23</b>	<b>584</b>	<b>1247</b>
% App. Total	11.8	41.2	47.1		4.8	80.7	14.5		21.5	54.7	23.8		15.8	80.3	3.9		
PHF	.667	.583	.800	.708	.714	.918	.750	.924	.696	.884	.672	.905	.742	.895	.442	.896	.962

Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00 AM



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	2	12	10	24	6	91	15	112	14	28	8	50	16	110	2	128
+15 mins.	2	5	6	13	3	90	7	100	8	24	7	39	19	131	13	163
+30 mins.	3	7	7	17	7	75	20	102	13	20	12	45	26	101	3	130
+45 mins.	1	4	9	14	4	78	18	100	4	27	16	47	31	127	5	163
Total Volume	8	28	32	68	20	334	60	414	39	99	43	181	92	469	23	584
% App. Total	11.8	41.2	47.1		4.8	80.7	14.5		21.5	54.7	23.8		15.8	80.3	3.9	
PHF	.667	.583	.800	.708	.714	.918	.750	.924	.696	.884	.672	.905	.742	.895	.442	.896

City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

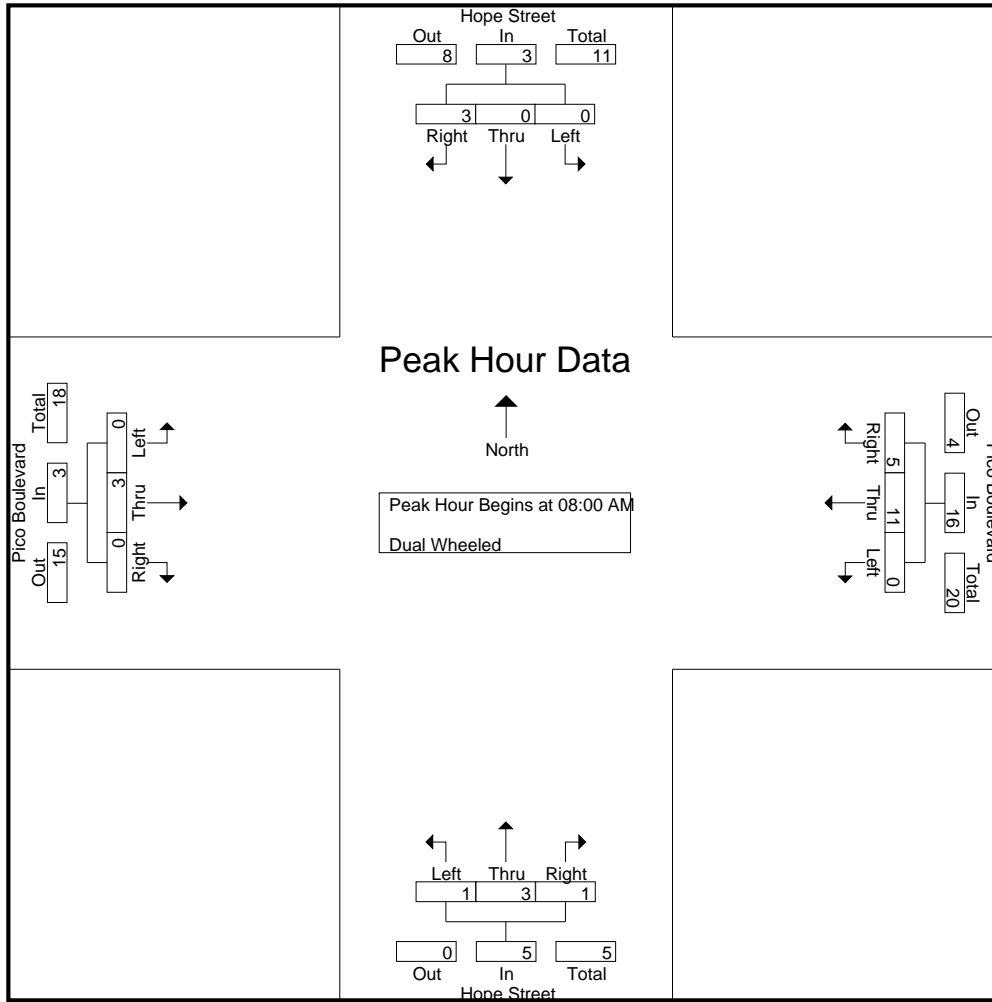
File Name : 02\_LAC\_Hope\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Dual Wheeled

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	1	2	0	0	0	0	0	1	0	1	0	4	1	5	8
07:15 AM	0	1	0	1	0	3	1	4	0	0	0	0	0	2	0	2	7
07:30 AM	1	0	0	1	0	4	1	5	1	1	0	2	0	0	0	0	8
07:45 AM	0	0	1	1	0	4	1	5	0	1	0	1	0	0	0	0	7
Total	1	2	2	5	0	11	3	14	1	3	0	4	0	6	1	7	30
08:00 AM	0	0	1	1	0	0	3	3	0	1	1	2	0	1	0	1	7
08:15 AM	0	0	1	1	0	4	1	5	0	1	0	1	0	0	0	0	7
08:30 AM	0	0	0	0	0	4	0	4	0	1	0	1	0	1	0	1	6
08:45 AM	0	0	1	1	0	3	1	4	1	0	0	1	0	1	0	1	7
Total	0	0	3	3	0	11	5	16	1	3	1	5	0	3	0	3	27
09:00 AM	0	0	0	0	0	2	0	2	2	0	0	2	1	0	0	1	5
09:15 AM	0	0	1	1	0	1	0	1	0	2	0	2	0	3	0	3	7
09:30 AM	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	3
09:45 AM	1	0	1	2	0	2	1	3	0	1	0	1	0	4	0	4	10
Total	1	0	3	4	0	7	1	8	2	3	0	5	1	7	0	8	25
Grand Total	2	2	8	12	0	29	9	38	4	9	1	14	1	16	1	18	82
Apprch %	16.7	16.7	66.7		0	76.3	23.7		28.6	64.3	7.1		5.6	88.9	5.6		
Total %	2.4	2.4	9.8	14.6	0	35.4	11	46.3	4.9	11	1.2	17.1	1.2	19.5	1.2	22	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	1	1	0	0	3	3	0	1	1	2	0	1	0	1	7
08:15 AM	0	0	1	1	0	4	1	5	0	1	0	1	0	0	0	0	7
08:30 AM	0	0	0	0	0	4	0	4	0	1	0	1	0	1	0	1	6
08:45 AM	0	0	1	1	0	3	1	4	1	0	0	1	0	1	0	1	7
Total Volume	0	0	3	3	0	11	5	16	1	3	1	5	0	3	0	3	27
% App. Total	0	0	100		0	68.8	31.2		20	60	20		0	100	0		
PHF	.000	.000	.750	.750	.000	.688	.417	.800	.250	.750	.250	.625	.000	.750	.000	.750	.964





Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM				
+0 mins.	0	0	1	1	0	0	3	3	0	1	1	2	0	0	1	0	1
+15 mins.	0	0	1	1	0	4	1	5	0	1	0	1	0	0	0	0	0
+30 mins.	0	0	0	0	0	4	0	4	0	1	0	1	0	1	0	0	1
+45 mins.	0	0	1	1	0	3	1	4	1	0	0	1	0	1	0	0	1
Total Volume	0	0	3	3	0	11	5	16	1	3	1	5	0	3	0	0	3
% App. Total	0	0	100		0	68.8	31.2		20	60	20		0	100	0		
PHF	.000	.000	.750	.750	.000	.688	.417	.800	.250	.750	.250	.625	.000	.750	.000	.750	

City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

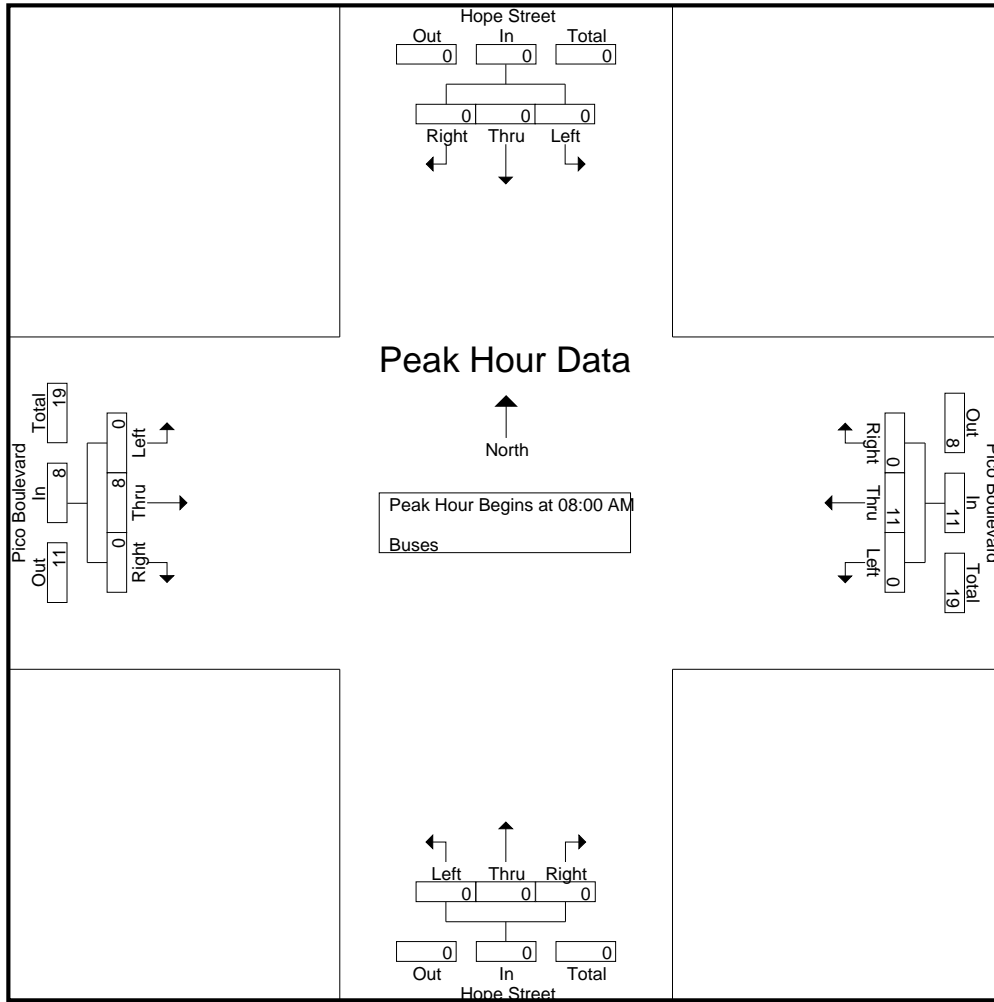
Groups Printed- Buses

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	1	4	7
07:15 AM	0	1	0	1	0	3	0	3	0	0	0	0	0	3	1	4	8
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	0	1	0	1	0	11	0	11	0	0	0	0	0	11	2	13	25
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
08:30 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	6
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	11	0	11	0	0	0	0	0	8	0	8	19
09:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	3	0	3	7
09:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
09:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
09:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Total	0	0	0	0	0	11	0	11	0	0	0	0	0	6	0	6	17
Grand Total	0	1	0	1	0	33	0	33	0	0	0	0	0	25	2	27	61
Apprch %	0	100	0		0	100	0		0	0	0		0	92.6	7.4		
Total %	0	1.6	0	1.6	0	54.1	0	54.1	0	0	0	0	0	41	3.3	44.3	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
08:30 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	6
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total Volume	0	0	0	0	0	11	0	11	0	0	0	0	0	8	0	8	19
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.550	.000	.550	.000	.000	.000	.000	.000	.500	.000	.500	.792

City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4
+30 mins.	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	11	0	11	0	0	0	0	0	8	0	8
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.550	.000	.550	.000	.000	.000	.000	.000	.500	.000	.500

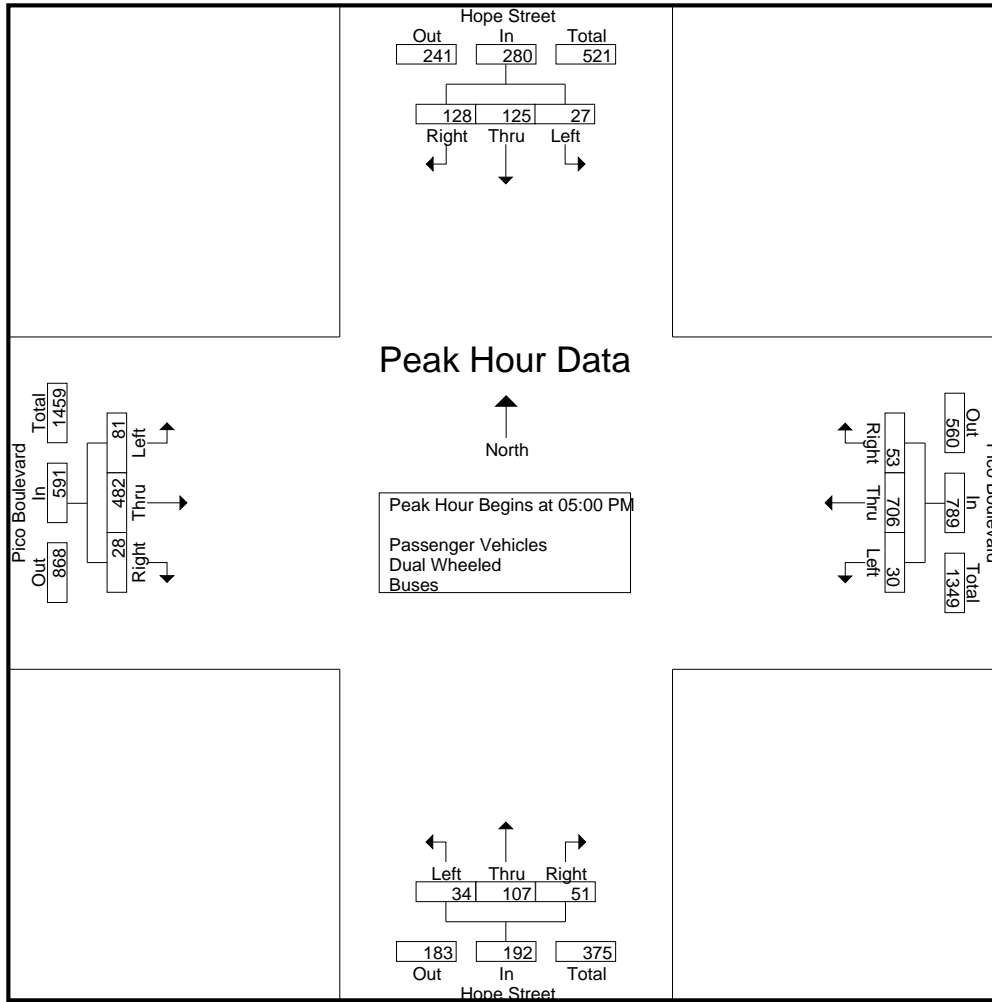
City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	6	8	21	35	2	73	7	82	8	18	7	33	5	99	7	111	261
03:15 PM	5	12	15	32	6	83	12	101	6	28	7	41	21	106	7	134	308
03:30 PM	4	12	20	36	2	86	9	97	10	25	9	44	16	92	5	113	290
03:45 PM	4	21	13	38	3	85	13	101	13	23	9	45	15	110	11	136	320
Total	19	53	69	141	13	327	41	381	37	94	32	163	57	407	30	494	1179
04:00 PM	4	19	21	44	3	89	18	110	4	15	5	24	11	97	13	121	299
04:15 PM	7	15	21	43	2	110	19	131	8	18	7	33	17	132	10	159	366
04:30 PM	5	22	30	57	2	104	8	114	14	25	15	54	17	132	11	160	385
04:45 PM	9	18	20	47	2	129	15	146	8	14	10	32	13	109	4	126	351
Total	25	74	92	191	9	432	60	501	34	72	37	143	58	470	38	566	1401
05:00 PM	13	29	34	76	7	142	12	161	9	26	15	50	16	113	8	137	424
05:15 PM	5	31	34	70	6	167	12	185	9	20	12	41	22	141	5	168	464
05:30 PM	6	29	28	63	11	205	20	236	6	38	12	56	22	117	6	145	500
05:45 PM	3	36	32	71	6	192	9	207	10	23	12	45	21	111	9	141	464
Total	27	125	128	280	30	706	53	789	34	107	51	192	81	482	28	591	1852
Grand Total	71	252	289	612	52	1465	154	1671	105	273	120	498	196	1359	96	1651	4432
Apprch %	11.6	41.2	47.2		3.1	87.7	9.2		21.1	54.8	24.1		11.9	82.3	5.8		
Total %	1.6	5.7	6.5	13.8	1.2	33.1	3.5	37.7	2.4	6.2	2.7	11.2	4.4	30.7	2.2	37.3	
Passenger Vehicles	70	244	286	600	51	1395	146	1592	105	266	117	488	195	1308	94	1597	4277
% Passenger Vehicles	98.6	96.8	99	98	98.1	95.2	94.8	95.3	100	97.4	97.5	98	99.5	96.2	97.9	96.7	96.5
Dual Wheeled	1	8	3	12	1	13	8	22	0	7	3	10	1	25	1	27	71
% Dual Wheeled	1.4	3.2	1	2	1.9	0.9	5.2	1.3	0	2.6	2.5	2	0.5	1.8	1	1.6	1.6
Buses	0	0	0	0	0	57	0	57	0	0	0	0	0	26	1	27	84
% Buses	0	0	0	0	0	3.9	0	3.4	0	0	0	0	0	1.9	1	1.6	1.9

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	29	34	76	7	142	12	161	9	26	15	50	16	113	8	137	424
05:15 PM	5	31	34	70	6	167	12	185	9	20	12	41	22	141	5	168	464
05:30 PM	6	29	28	63	11	205	20	236	6	38	12	56	22	117	6	145	500
05:45 PM	3	36	32	71	6	192	9	207	10	23	12	45	21	111	9	141	464
Total Volume	27	125	128	280	30	706	53	789	34	107	51	192	81	482	28	591	1852
% App. Total	9.6	44.6	45.7		3.8	89.5	6.7		17.7	55.7	26.6		13.7	81.6	4.7		
PHF	.519	.868	.941	.921	.682	.861	.663	.836	.850	.704	.850	.857	.920	.855	.778	.879	.926



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				04:30 PM			
+0 mins.	13	29	34	76	7	142	12	161	9	26	15	50	17	132	11	160
+15 mins.	5	31	34	70	6	167	12	185	9	20	12	41	13	109	4	126
+30 mins.	6	29	28	63	11	205	20	236	6	38	12	56	16	113	8	137
+45 mins.	3	36	32	71	6	192	9	207	10	23	12	45	22	141	5	168
Total Volume	27	125	128	280	30	706	53	789	34	107	51	192	68	495	28	591
% App. Total	9.6	44.6	45.7		3.8	89.5	6.7		17.7	55.7	26.6		11.5	83.8	4.7	
PHF	.519	.868	.941	.921	.682	.861	.663	.836	.850	.704	.850	.857	.773	.878	.636	.879

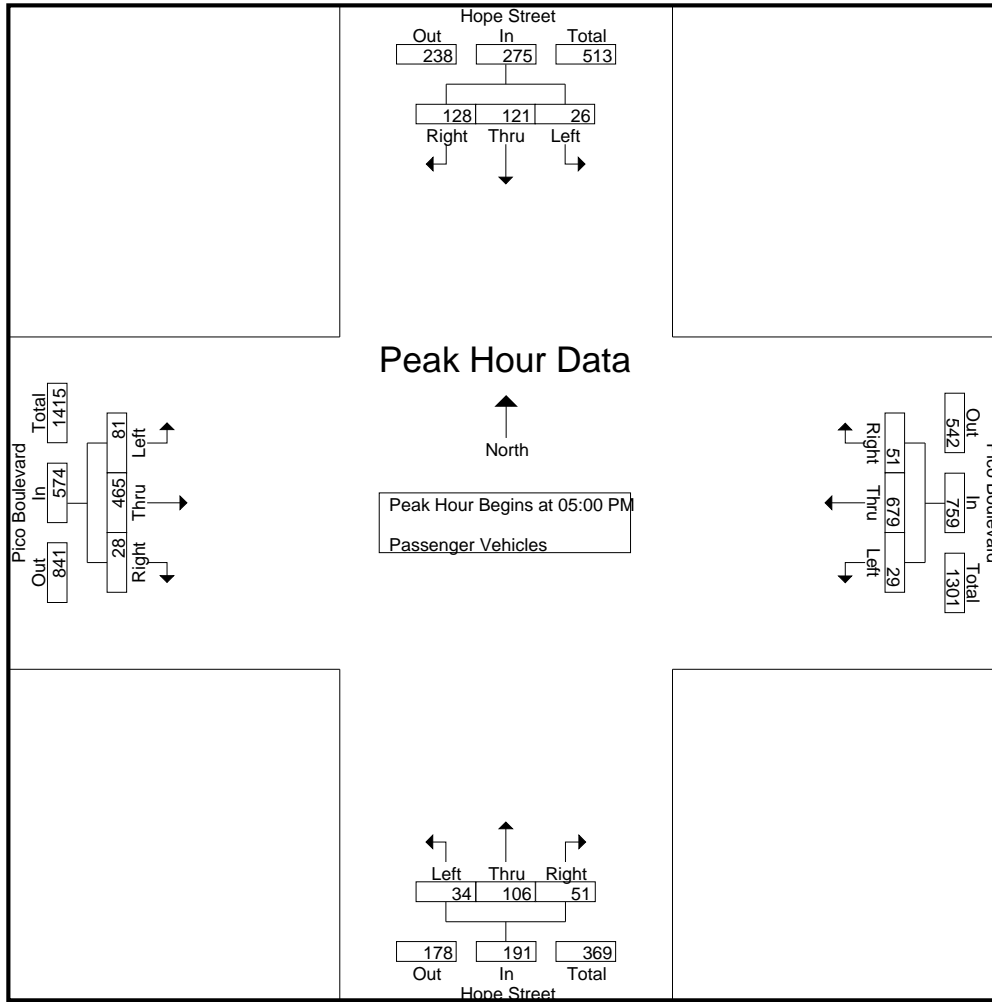
City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	6	8	21	35	2	69	7	78	8	17	7	32	5	93	7	105	250
03:15 PM	5	12	15	32	6	80	10	96	6	26	6	38	21	103	7	131	297
03:30 PM	4	12	19	35	2	80	9	91	10	25	9	44	16	86	4	106	276
03:45 PM	4	19	13	36	3	77	13	93	13	21	9	43	15	107	11	133	305
Total	19	51	68	138	13	306	39	358	37	89	31	157	57	389	29	475	1128
04:00 PM	4	19	20	43	3	85	15	103	4	15	5	24	11	95	13	119	289
04:15 PM	7	15	20	42	2	105	18	125	8	18	6	32	17	129	9	155	354
04:30 PM	5	21	30	56	2	99	8	109	14	24	15	53	16	126	11	153	371
04:45 PM	9	17	20	46	2	121	15	138	8	14	9	31	13	104	4	121	336
Total	25	72	90	187	9	410	56	475	34	71	35	140	57	454	37	548	1350
05:00 PM	13	28	34	75	6	135	12	153	9	25	15	49	16	109	8	133	410
05:15 PM	5	29	34	68	6	158	11	175	9	20	12	41	22	136	5	163	447
05:30 PM	6	28	28	62	11	199	19	229	6	38	12	56	22	113	6	141	488
05:45 PM	2	36	32	70	6	187	9	202	10	23	12	45	21	107	9	137	454
Total	26	121	128	275	29	679	51	759	34	106	51	191	81	465	28	574	1799
Grand Total	70	244	286	600	51	1395	146	1592	105	266	117	488	195	1308	94	1597	4277
Apprch %	11.7	40.7	47.7		3.2	87.6	9.2		21.5	54.5	24		12.2	81.9	5.9		
Total %	1.6	5.7	6.7	14	1.2	32.6	3.4	37.2	2.5	6.2	2.7	11.4	4.6	30.6	2.2	37.3	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	28	34	75	6	135	12	153	9	25	15	49	16	109	8	133	410
05:15 PM	5	29	34	68	6	158	11	175	9	20	12	41	22	136	5	163	447
05:30 PM	6	28	28	62	11	199	19	229	6	38	12	56	22	113	6	141	488
05:45 PM	2	36	32	70	6	187	9	202	10	23	12	45	21	107	9	137	454
Total Volume	26	121	128	275	29	679	51	759	34	106	51	191	81	465	28	574	1799
% App. Total	9.5	44	46.5		3.8	89.5	6.7		17.8	55.5	26.7		14.1	81	4.9		
PHF	.500	.840	.941	.917	.659	.853	.671	.829	.850	.697	.850	.853	.920	.855	.778	.880	.922



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	13	28	34	75	6	135	12	153	9	25	15	49	16	109	8	133
+15 mins.	5	29	34	68	6	158	11	175	9	20	12	41	22	136	5	163
+30 mins.	6	28	28	62	11	199	19	229	6	38	12	56	22	113	6	141
+45 mins.	2	36	32	70	6	187	9	202	10	23	12	45	21	107	9	137
Total Volume	26	121	128	275	29	679	51	759	34	106	51	191	81	465	28	574
% App. Total	9.5	44	46.5		3.8	89.5	6.7		17.8	55.5	26.7		14.1	81	4.9	
PHF	.500	.840	.941	.917	.659	.853	.671	.829	.850	.697	.850	.853	.920	.855	.778	.880

City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

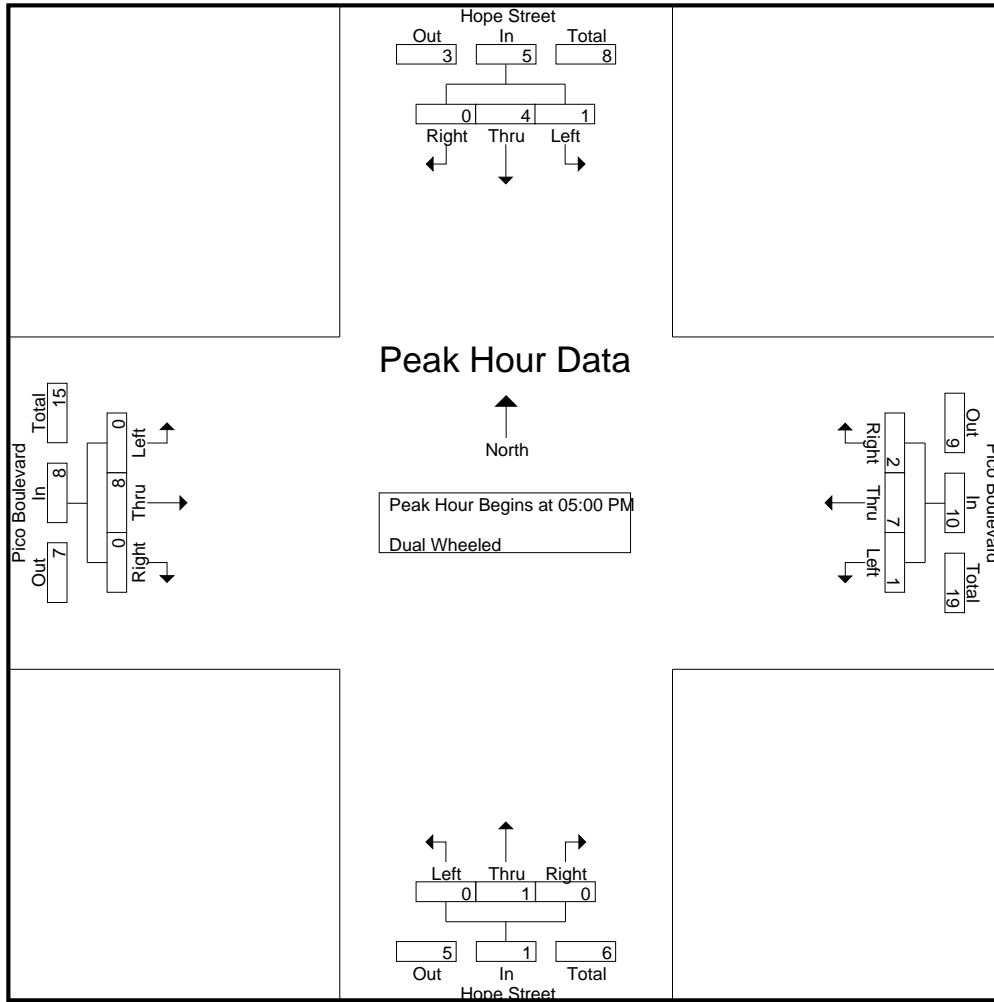
Groups Printed- Dual Wheeled

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
03:15 PM	0	0	0	0	0	1	2	3	0	2	1	3	0	1	0	1	7
03:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	4	0	4	5
03:45 PM	0	2	0	2	0	1	0	1	0	2	0	2	0	2	0	2	7
Total	0	2	1	3	0	2	2	4	0	5	1	6	0	10	0	10	23
04:00 PM	0	0	1	1	0	1	3	4	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	1	1	0	1	1	2	0	0	1	1	0	2	1	3	7
04:30 PM	0	1	0	1	0	1	0	1	0	1	0	1	1	4	0	5	8
04:45 PM	0	1	0	1	0	1	0	1	0	0	1	1	0	1	0	1	4
Total	0	2	2	4	0	4	4	8	0	1	2	3	1	7	1	9	24
05:00 PM	0	1	0	1	1	3	0	4	0	1	0	1	0	3	0	3	9
05:15 PM	0	2	0	2	0	2	1	3	0	0	0	0	0	3	0	3	8
05:30 PM	0	1	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
05:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total	1	4	0	5	1	7	2	10	0	1	0	1	0	8	0	8	24
Grand Total	1	8	3	12	1	13	8	22	0	7	3	10	1	25	1	27	71
Apprch %	8.3	66.7	25		4.5	59.1	36.4		0	70	30		3.7	92.6	3.7		
Total %	1.4	11.3	4.2	16.9	1.4	18.3	11.3	31	0	9.9	4.2	14.1	1.4	35.2	1.4	38	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	0	1	0	1	1	3	0	4	0	1	0	1	0	3	0	3	9
05:15 PM	0	2	0	2	0	2	1	3	0	0	0	0	0	3	0	3	8
05:30 PM	0	1	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
05:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total Volume	1	4	0	5	1	7	2	10	0	1	0	1	0	8	0	8	24
% App. Total	20	80	0		10	70	20		0	100	0		0	100	0		
PHF	.250	.500	.000	.625	.250	.583	.500	.625	.000	.250	.000	.250	.000	.667	.000	.667	.667

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 05:00 PM





Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	1	0	1	1	3	0	4	0	1	0	1	0	3	0	3
+15 mins.	0	2	0	2	0	2	1	3	0	0	0	0	0	3	0	3
+30 mins.	0	1	0	1	0	1	1	2	0	0	0	0	0	2	0	2
+45 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	1	4	0	5	1	7	2	10	0	1	0	1	0	8	0	8
% App. Total	20	80	0		10	70	20		0	100	0		0	100	0	
PHF	.250	.500	.000	.625	.250	.583	.500	.625	.000	.250	.000	.250	.000	.667	.000	.667

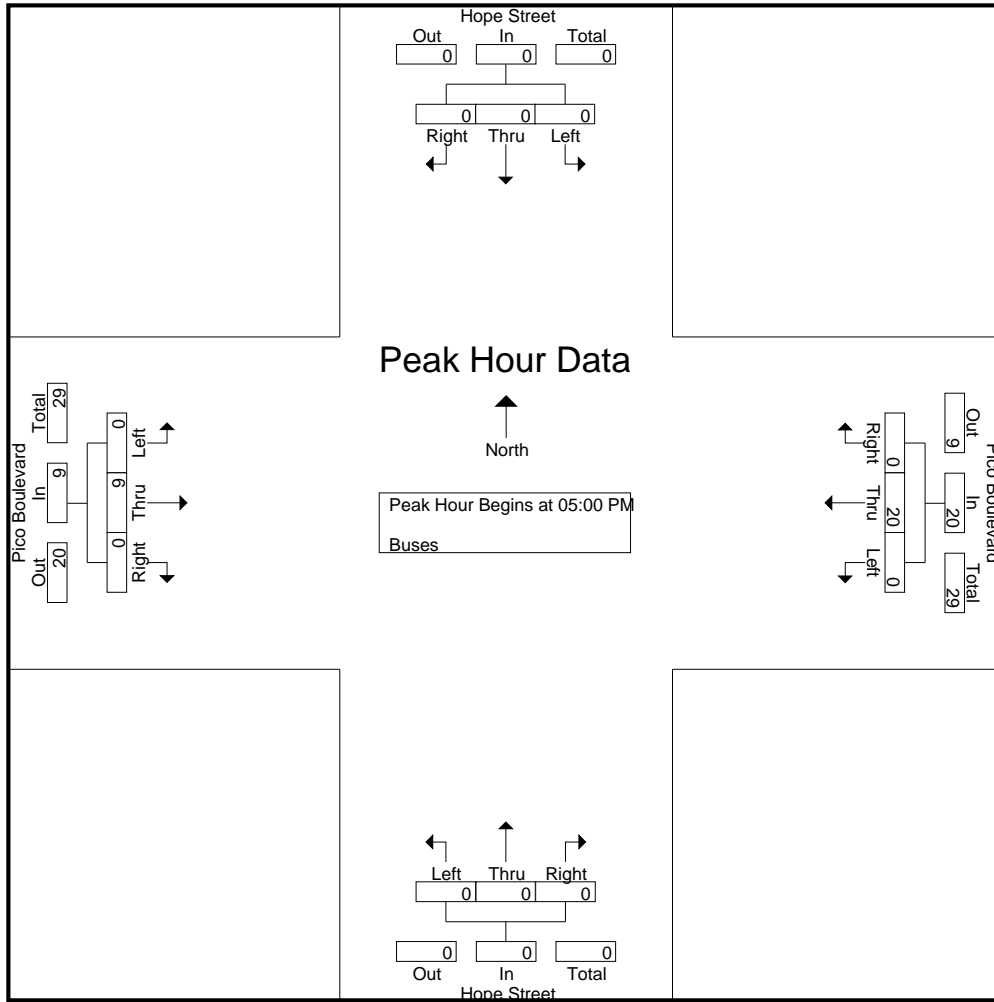
City of Los Angeles  
 N/S: Hope Street  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 02\_LAC\_Hope\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Buses

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	3	0	3	7
03:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
03:30 PM	0	0	0	0	0	6	0	6	0	0	0	0	0	2	1	3	9
03:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	1	0	1	8
Total	0	0	0	0	0	19	0	19	0	0	0	0	0	8	1	9	28
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
04:15 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
04:30 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	6
04:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	4	0	4	11
Total	0	0	0	0	0	18	0	18	0	0	0	0	0	9	0	9	27
05:00 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
05:15 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
05:30 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
05:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
Total	0	0	0	0	0	20	0	20	0	0	0	0	0	9	0	9	29
Grand Total	0	0	0	0	0	57	0	57	0	0	0	0	0	26	1	27	84
Apprch %	0	0	0	0	0	100	0	100	0	0	0	0	0	96.3	3.7	96.3	
Total %	0	0	0	0	0	67.9	0	67.9	0	0	0	0	0	31	1.2	32.1	

Start Time	Hope Street Southbound				Pico Boulevard Westbound				Hope Street Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
05:15 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
05:30 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
05:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
Total Volume	0	0	0	0	0	20	0	20	0	0	0	0	0	9	0	9	29
% App. Total	0	0	0	0	0	100	0	100	0	0	0	0	0	100	0	100	
PHF	.000	.000	.000	.000	.000	.714	.000	.714	.000	.000	.000	.000	.000	.563	.000	.563	.806



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4
Total Volume	0	0	0	0	0	20	0	20	0	0	0	0	0	9	0	9
% App. Total	0	0	0	0	0	100	0	100	0	0	0	0	0	100	0	100
PHF	.000	.000	.000	.000	.000	.714	.000	.714	.000	.000	.000	.000	.000	.563	.000	.563



**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

**North/South** Hope Street

**East/West** Pico Boulevard

**Day:** Tuesday **Date:** December 17, 2019 **Weather:** CLEAR

**Hours:** 7-10AM 3-6PM **Staff:** CUI

**School Day:** YES **District:** Central **I/S CODE** 8756

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED BIKES</b>	24	24	45	60
<b>BIKES</b>	9	14	57	59
<b>BUSES</b>	0	1	54	90

	N/B TIME		S/B TIME		E/B TIME		W/B TIME	
<i>AM PK 15 MIN</i>	67	7.30	25	7.30	167	8.15	118	8.00
<i>PM PK 15 MIN</i>	56	5.30	76	5.00	168	5.15	236	5.30
<i>AM PK HOUR</i>	207	7.30	89	7.15	595	8.00	441	8.00
<i>PM PK HOUR</i>	192	5.00	280	5.00	591	4.30	789	5.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	52	99	22	173
8-9	40	102	44	186
9-10	28	72	58	158
3-4	37	94	32	163
4-5	34	72	37	143
5-6	34	107	51	192
<b>TOTAL</b>	<b>225</b>	<b>546</b>	<b>244</b>	<b>1015</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	11	44	32	87
8-9	8	28	35	71
9-10	11	20	32	63
3-4	19	53	69	141
4-5	25	74	92	191
5-6	27	125	128	280
<b>TOTAL</b>	<b>101</b>	<b>344</b>	<b>388</b>	<b>833</b>

**TOTAL**

N-S	260
257	
221	
304	
334	
472	
<b>1848</b>	

**XING S/L**

Ped Sch	32 3
37 0	
26 1	
51 0	
57 1	
71 5	
<b>274 10</b>	

**XING N/L**

Ped Sch	65 0
76 1	
87 0	
69 2	
84 6	
70 0	
<b>451 9</b>	

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	53	331	23	407
8-9	92	480	23	595
9-10	60	370	13	443
3-4	57	407	30	494
4-5	58	470	38	566
5-6	81	482	28	591
<b>TOTAL</b>	<b>401</b>	<b>2540</b>	<b>155</b>	<b>3096</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	15	346	32	393
8-9	20	356	65	441
9-10	5	276	61	342
3-4	13	327	41	381
4-5	9	432	60	501
5-6	30	706	53	789
<b>TOTAL</b>	<b>92</b>	<b>2443</b>	<b>312</b>	<b>2847</b>

**TOTAL**

E-W	800
1036	
785	
875	
1067	
1380	
<b>5943</b>	

**XING W/L**

Ped Sch	21 2
22 0	
18 0	
22 0	
18 0	
19 1	
<b>120 3</b>	

**XING E/L**

Ped Sch	17 0
19 0	
26 0	
21 0	
19 0	
15 1	
<b>117 1</b>	

**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Hope Street				
<b>East/West:</b>	Pico Boulevard				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	Yes	<b>District:</b>	Central	<b>I/S Code:</b>	8756
<b>Hours:</b>	7-10 AM, 3-6 PM		<b>Staff:</b>	CUI	

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	2	0	2
8-9	0	1	0	1
9-10	0	1	1	2
3-4	0	1	0	1
4-5	0	1	0	1
5-6	0	2	0	2
<b>TOTAL</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>9</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	0	2	0	2	4
8-9	0	1	0	1	2
9-10	0	0	0	0	2
3-4	0	3	3	6	7
4-5	0	1	1	2	3
5-6	1	1	1	3	5
<b>TOTAL</b>	<b>1</b>	<b>8</b>	<b>5</b>	<b>14</b>	<b>23</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	1	14	1	16
8-9	1	9	0	10
9-10	1	11	1	13
3-4	2	5	0	7
4-5	0	3	0	3
5-6	1	7	0	8
<b>TOTAL</b>	<b>6</b>	<b>49</b>	<b>2</b>	<b>57</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	2	6	0	8	24
8-9	0	3	0	3	13
9-10	0	3	0	3	16
3-4	0	15	0	15	22
4-5	0	14	1	15	18
5-6	1	14	0	15	23
<b>TOTAL</b>	<b>3</b>	<b>55</b>	<b>1</b>	<b>59</b>	<b>116</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	0	1	0	0	1
- No helmet riders	5	10	45	41	101
- Sidewalk Riding	0	4	30	32	66
- Wrong way riding	1	3	17	6	27

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Hope Street				
<b>East/West:</b>	Pico Boulevard				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Central	<b>I/S Code:</b>	8756
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	10	5	7	6	28
7:15-7:30	15	10	4	7	36
7:30-7:45	22	8	4	7	41
7:45-8:00	18	12	2	3	35
8:00-8:15	24	12	4	4	44
8:15-8:30	12	6	4	4	26
8:30-8:45	11	12	5	6	34
8:45-9:00	30	7	6	8	51
9:00-9:15	30	10	4	3	47
9:15-9:30	18	9	7	4	38
9:30-9:45	14	2	5	7	28
9:45-10:00	25	6	10	4	45

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	65	35	17	23	140
8 - 9	77	37	19	22	155
9 - 10	87	27	26	18	158
<b>TOTAL</b>	<b>229</b>	<b>99</b>	<b>62</b>	<b>63</b>	<b>453</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	20	8	5	4	37
3:15-3:30	14	25	6	9	54
3:30-3:45	15	7	7	1	30
3:45-4:00	22	11	3	8	44
4:00-4:15	21	13	4	4	42
4:15-4:30	17	14	6	5	42
4:30-4:45	28	20	6	8	62
4:45-5:00	24	11	3	1	39
5:00-5:15	13	26	6	5	50
5:15-5:30	15	23	2	3	43
5:30-5:45	28	16	6	6	56
5:45-6:00	14	11	2	6	33

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	71	51	21	22	165
4 - 5	90	58	19	18	185
5 - 6	70	76	16	20	182
<b>TOTAL</b>	<b>231</b>	<b>185</b>	<b>56</b>	<b>60</b>	<b>532</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
0	0	2	2	4
5	6	18	21	50

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

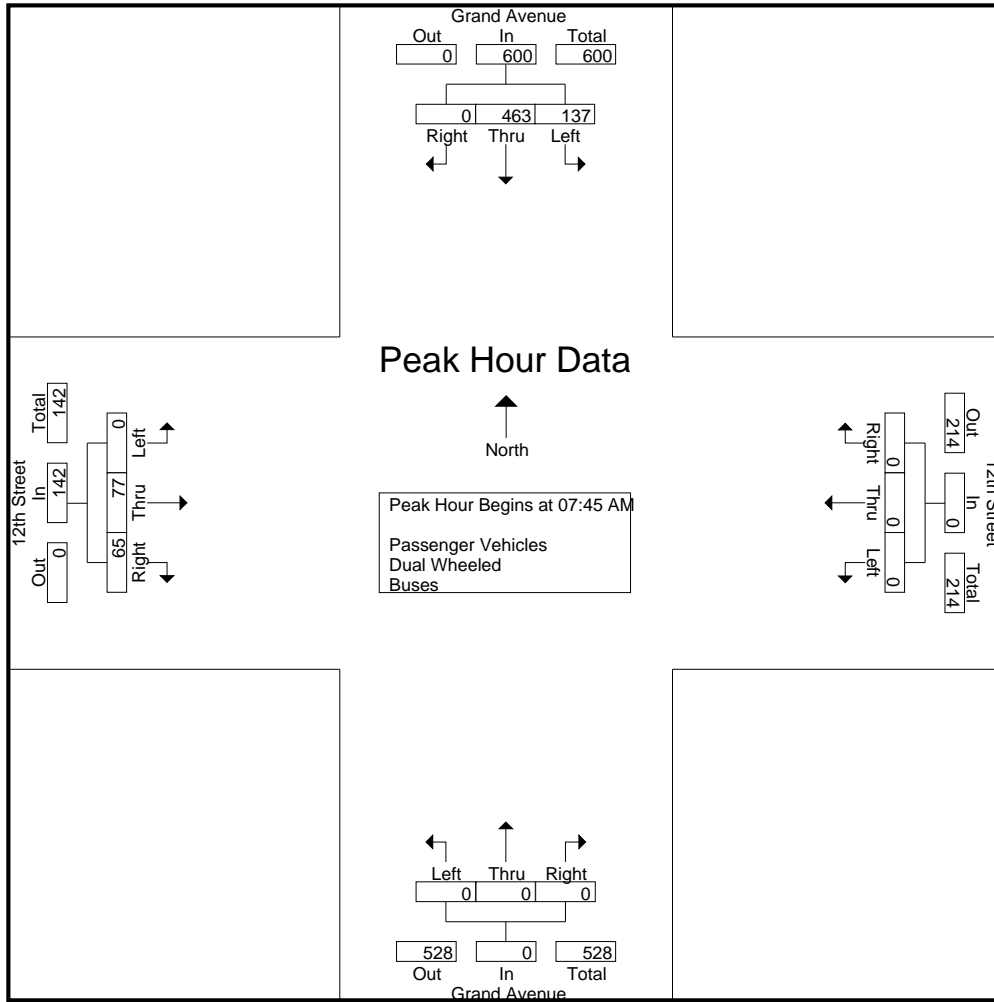
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	27	91	0	118	0	0	0	0	0	0	0	0	0	14	15	29	147
07:15 AM	12	113	0	125	0	0	0	0	0	0	0	0	0	14	10	24	149
07:30 AM	13	117	0	130	0	0	0	0	0	0	0	0	0	12	16	28	158
07:45 AM	40	108	0	148	0	0	0	0	0	0	0	0	0	15	15	30	178
Total	92	429	0	521	0	0	0	0	0	0	0	0	0	55	56	111	632
08:00 AM	24	128	0	152	0	0	0	0	0	0	0	0	0	18	17	35	187
08:15 AM	31	104	0	135	0	0	0	0	0	0	0	0	0	26	13	39	174
08:30 AM	42	123	0	165	0	0	0	0	0	0	0	0	0	18	20	38	203
08:45 AM	28	106	0	134	0	0	0	0	0	0	0	0	0	24	15	39	173
Total	125	461	0	586	0	0	0	0	0	0	0	0	0	86	65	151	737
09:00 AM	34	113	0	147	0	0	0	0	0	0	0	0	0	20	13	33	180
09:15 AM	29	114	0	143	0	0	0	0	0	0	0	0	0	17	10	27	170
09:30 AM	23	93	0	116	0	0	0	0	0	0	0	0	0	10	15	25	141
09:45 AM	20	98	0	118	0	0	0	0	0	0	0	0	0	19	20	39	157
Total	106	418	0	524	0	0	0	0	0	0	0	0	0	66	58	124	648
Grand Total	323	1308	0	1631	0	0	0	0	0	0	0	0	0	207	179	386	2017
Apprch %	19.8	80.2	0		0	0	0		0	0	0		0	53.6	46.4		
Total %	16	64.8	0	80.9	0	0	0	0	0	0	0	0	0	10.3	8.9	19.1	
Passenger Vehicles	312	1162	0	1474	0	0	0	0	0	0	0	0	0	199	174	373	1847
% Passenger Vehicles	96.6	88.8	0	90.4	0	0	0	0	0	0	0	0	0	96.1	97.2	96.6	91.6
Dual Wheeled	11	27	0	38	0	0	0	0	0	0	0	0	0	6	2	8	46
% Dual Wheeled	3.4	2.1	0	2.3	0	0	0	0	0	0	0	0	0	2.9	1.1	2.1	2.3
Buses	0	119	0	119	0	0	0	0	0	0	0	0	0	2	3	5	124
% Buses	0	9.1	0	7.3	0	0	0	0	0	0	0	0	0	1	1.7	1.3	6.1

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	40	108	0	148	0	0	0	0	0	0	0	0	0	15	15	30	178
08:00 AM	24	<b>128</b>	0	152	0	0	0	0	0	0	0	0	0	18	17	35	187
08:15 AM	31	104	0	135	0	0	0	0	0	0	0	0	0	<b>26</b>	13	<b>39</b>	174
08:30 AM	<b>42</b>	123	0	<b>165</b>	0	0	0	0	0	0	0	0	0	18	<b>20</b>	<b>38</b>	<b>203</b>
Total Volume	137	463	0	600	0	0	0	0	0	0	0	0	0	77	65	142	742
% App. Total	22.8	77.2	0		0	0	0		0	0	0		0	54.2	45.8		
PHF	.815	.904	.000	.909	.000	.000	.000	.000	.000	.000	.000	.000	.000	.740	.813	.910	.914

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	40	108	0	148	0	0	0	0	0	0	0	0	0	18	17	35
+15 mins.	24	<b>128</b>	0	152	0	0	0	0	0	0	0	0	0	<b>26</b>	13	<b>39</b>
+30 mins.	31	104	0	135	0	0	0	0	0	0	0	0	0	18	<b>20</b>	38
+45 mins.	<b>42</b>	123	0	<b>165</b>	0	0	0	0	0	0	0	0	0	24	15	39
Total Volume	137	463	0	600	0	0	0	0	0	0	0	0	0	86	65	151
% App. Total	22.8	77.2	0		0	0	0	0	0	0	0	0	0	57	43	
PHF	.815	.904	.000	.909	.000	.000	.000	.000	.000	.000	.000	.000	.000	.827	.813	.968



City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
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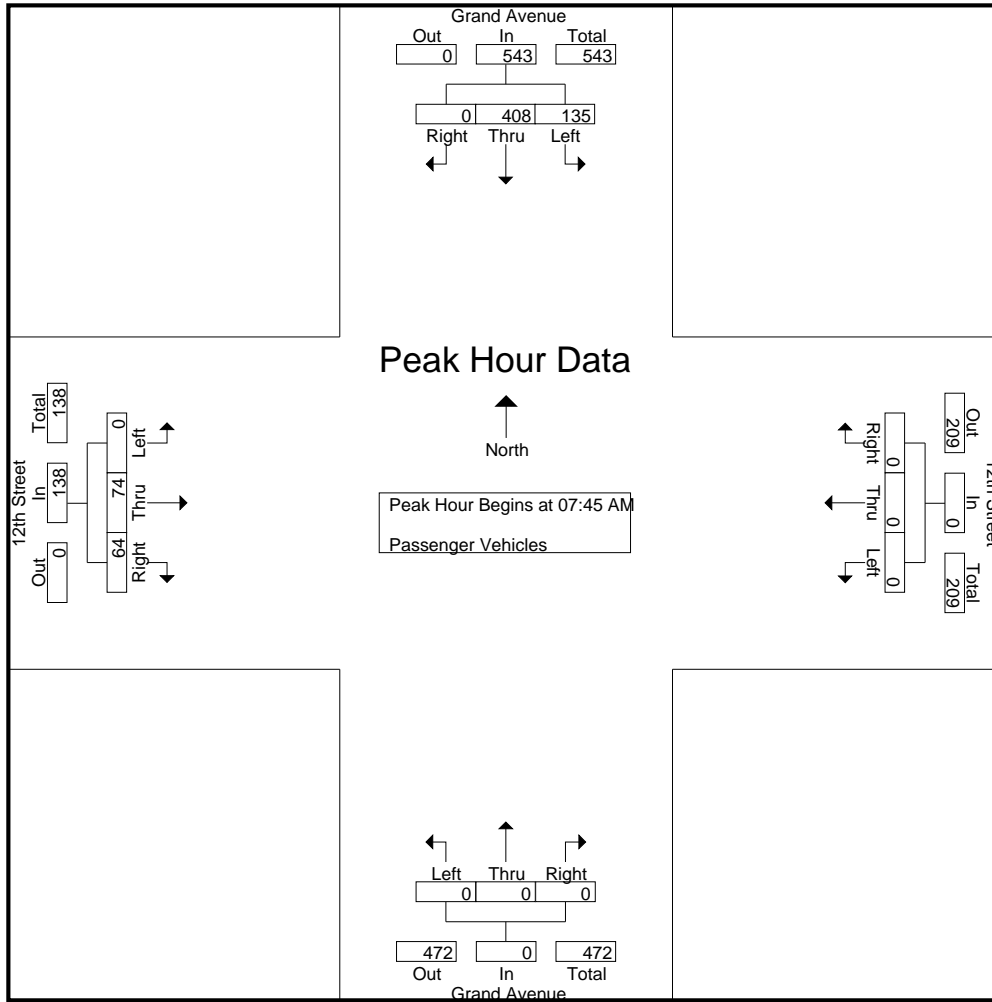
Groups Printed- Passenger Vehicles

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	27	84	0	111	0	0	0	0	0	0	0	0	0	12	14	26	137
07:15 AM	10	101	0	111	0	0	0	0	0	0	0	0	0	14	9	23	134
07:30 AM	13	107	0	120	0	0	0	0	0	0	0	0	0	12	15	27	147
07:45 AM	39	99	0	138	0	0	0	0	0	0	0	0	0	15	14	29	167
Total	89	391	0	480	0	0	0	0	0	0	0	0	0	53	52	105	585
08:00 AM	24	106	0	130	0	0	0	0	0	0	0	0	0	18	17	35	165
08:15 AM	31	94	0	125	0	0	0	0	0	0	0	0	0	24	13	37	162
08:30 AM	41	109	0	150	0	0	0	0	0	0	0	0	0	17	20	37	187
08:45 AM	26	94	0	120	0	0	0	0	0	0	0	0	0	23	15	38	158
Total	122	403	0	525	0	0	0	0	0	0	0	0	0	82	65	147	672
09:00 AM	33	96	0	129	0	0	0	0	0	0	0	0	0	19	13	32	161
09:15 AM	28	101	0	129	0	0	0	0	0	0	0	0	0	17	10	27	156
09:30 AM	21	83	0	104	0	0	0	0	0	0	0	0	0	10	14	24	128
09:45 AM	19	88	0	107	0	0	0	0	0	0	0	0	0	18	20	38	145
Total	101	368	0	469	0	0	0	0	0	0	0	0	0	64	57	121	590
Grand Total	312	1162	0	1474	0	0	0	0	0	0	0	0	0	199	174	373	1847
Apprch %	21.2	78.8	0		0	0	0		0	0	0		0	53.4	46.6		
Total %	16.9	62.9	0	79.8	0	0	0	0	0	0	0	0	0	10.8	9.4	20.2	

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	39	99	0	138	0	0	0	0	0	0	0	0	0	15	14	29	167
08:00 AM	24	106	0	130	0	0	0	0	0	0	0	0	0	18	17	35	165
08:15 AM	31	94	0	125	0	0	0	0	0	0	0	0	0	24	13	37	162
08:30 AM	<b>41</b>	<b>109</b>	0	<b>150</b>	0	0	0	0	0	0	0	0	0	17	20	37	<b>187</b>
Total Volume	135	408	0	543	0	0	0	0	0	0	0	0	0	74	64	138	681
% App. Total	24.9	75.1	0		0	0	0		0	0	0		0	53.6	46.4		
PHF	.823	.936	.000	.905	.000	.000	.000	.000	.000	.000	.000	.000	.000	.771	.800	.932	.910

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	39	99	0	138	0	0	0	0	0	0	0	0	0	15	14	29
+15 mins.	24	106	0	130	0	0	0	0	0	0	0	0	0	18	17	35
+30 mins.	31	94	0	125	0	0	0	0	0	0	0	0	0	<b>24</b>	13	<b>37</b>
+45 mins.	<b>41</b>	<b>109</b>	0	<b>150</b>	0	0	0	0	0	0	0	0	0	17	<b>20</b>	37
Total Volume	135	408	0	543	0	0	0	0	0	0	0	0	0	74	64	138
% App. Total	24.9	75.1	0		0	0	0		0	0	0		0	53.6	46.4	
PHF	.823	.936	.000	.905	.000	.000	.000	.000	.000	.000	.000	.000	.000	.771	.800	.932

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

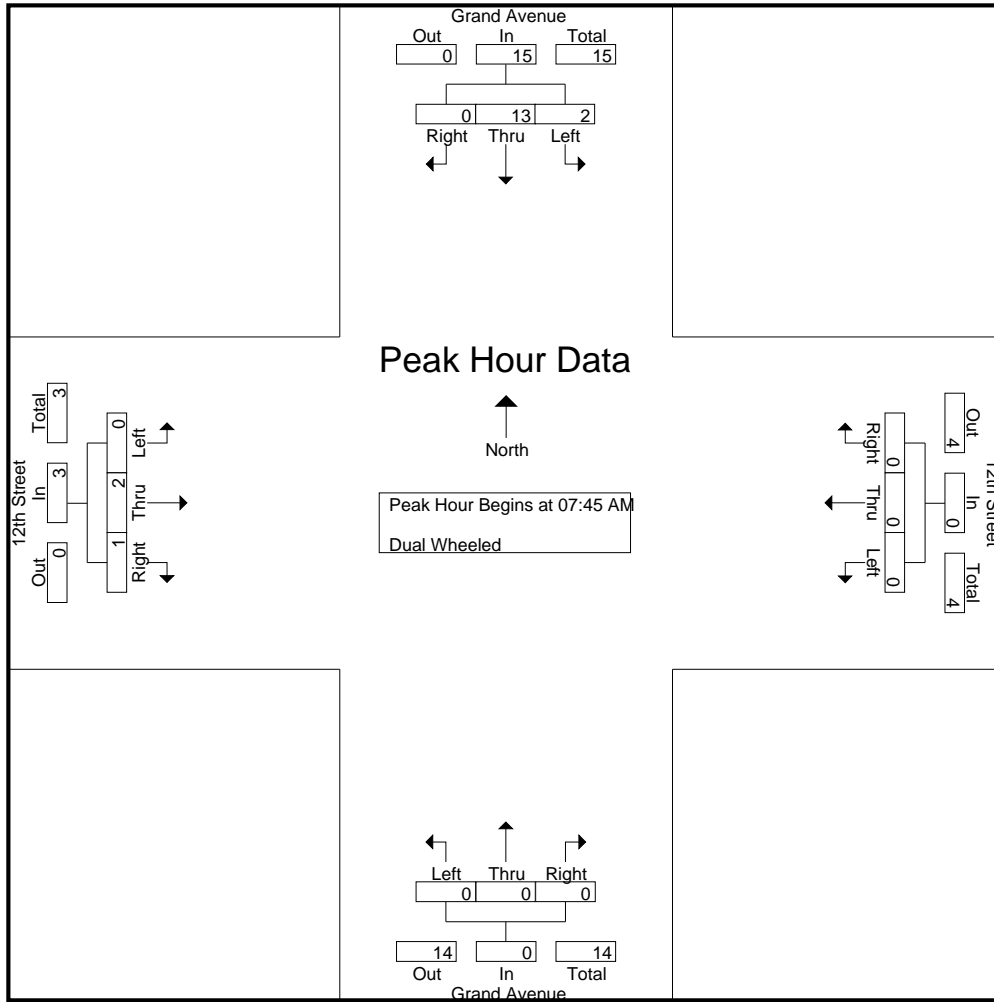
Groups Printed- Dual Wheeled

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
07:15 AM	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
<b>Total</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>11</b>
08:00 AM	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	4	0	5	0	0	0	0	0	0	0	0	0	1	0	1	6
08:45 AM	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>3</b>	<b>14</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>19</b>
09:00 AM	1	4	0	5	0	0	0	0	0	0	0	0	0	1	0	1	6
09:15 AM	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
09:30 AM	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
09:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
<b>Total</b>	<b>5</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>16</b>
<b>Grand Total</b>	<b>11</b>	<b>27</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>46</b>
Apprch %	28.9	71.1	0		0	0	0		0	0	0		0	75	25		
Total %	23.9	58.7	0	82.6	0	0	0		0	0	0		0	13	4.3	17.4	

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
08:00 AM	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	4	0	5	0	0	0	0	0	0	0	0	0	1	0	1	6
<b>Total Volume</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>18</b>
% App. Total	13.3	86.7	0		0	0	0		0	0	0		0	66.7	33.3		
PHF	.500	.406	.000	.469	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.750	.563

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1
+15 mins.	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	1	4	0	5	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	2	13	0	15	0	0	0	0	0	0	0	0	0	2	1	3
% App. Total	13.3	86.7	0		0	0	0		0	0	0		0	66.7	33.3	
PHF	.500	.406	.000	.469	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.750

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

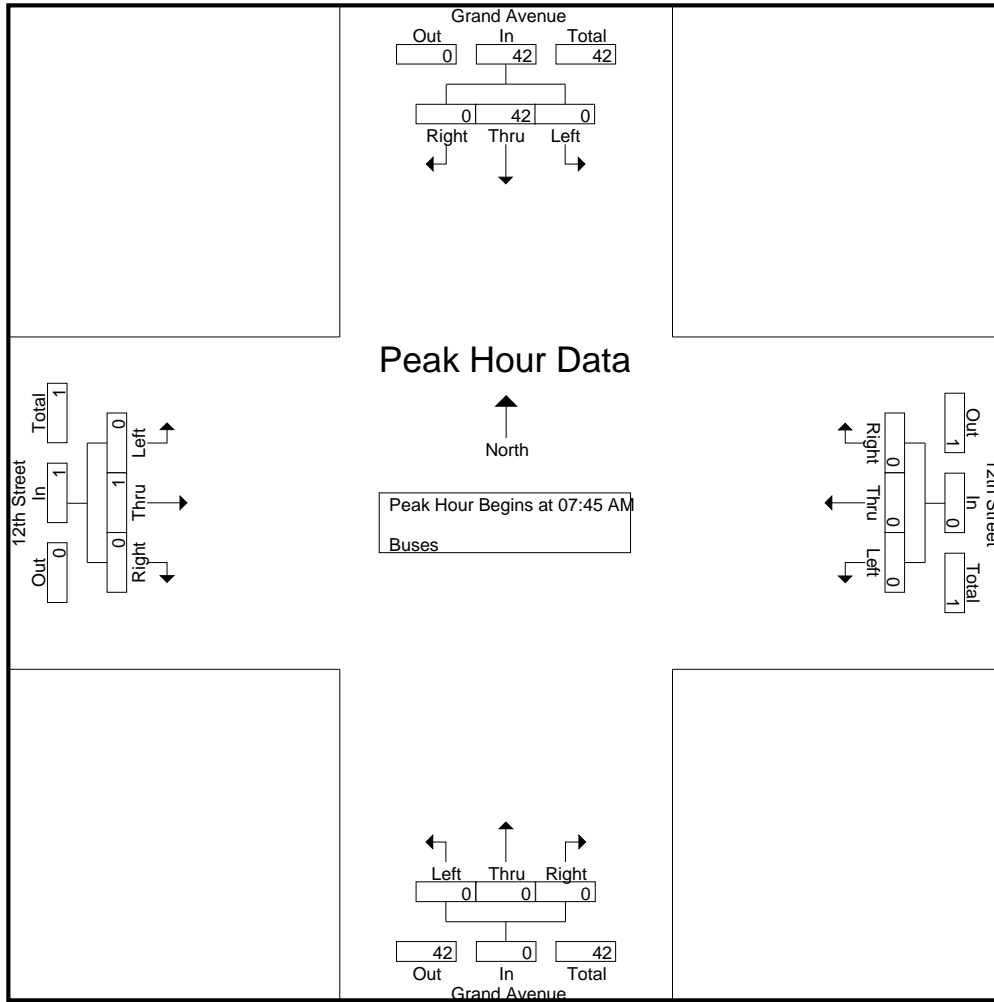
Groups Printed- Buses

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
07:15 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	0	1	0	1	11
07:30 AM	0	9	0	9	0	0	0	0	0	0	0	0	0	0	1	0	1	10
07:45 AM	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	0	34	0	34	0	0	0	0	0	0	0	0	0	0	2	0	2	36
08:00 AM	0	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
08:15 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	1	0	0	1	11
08:30 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
08:45 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	1	0	0	1	11
Total	0	44	0	44	0	0	0	0	0	0	0	0	0	2	0	0	2	46
09:00 AM	0	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
09:15 AM	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
09:30 AM	0	7	0	7	0	0	0	0	0	0	0	0	0	0	1	0	1	8
09:45 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	0	41	0	41	0	0	0	0	0	0	0	0	0	0	1	0	1	42
Grand Total	0	119	0	119	0	0	0	0	0	0	0	0	0	2	3	5	124	
Apprch %	0	100	0		0	0	0		0	0	0		0	40	60			
Total %	0	96	0	96	0	0	0	0	0	0	0	0	0	1.6	2.4	4		

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
08:00 AM	0	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
08:15 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	1	0	0	1	11
08:30 AM	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total Volume	0	42	0	42	0	0	0	0	0	0	0	0	0	1	0	1	43	
% App. Total	0	100	0		0	0	0		0	0	0		0	100	0			
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.768	

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	<b>14</b>	0	<b>14</b>	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	10	0	10	0	0	0	0	0	0	0	0	0	<b>1</b>	0	<b>1</b>
+45 mins.	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	42	0	42	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

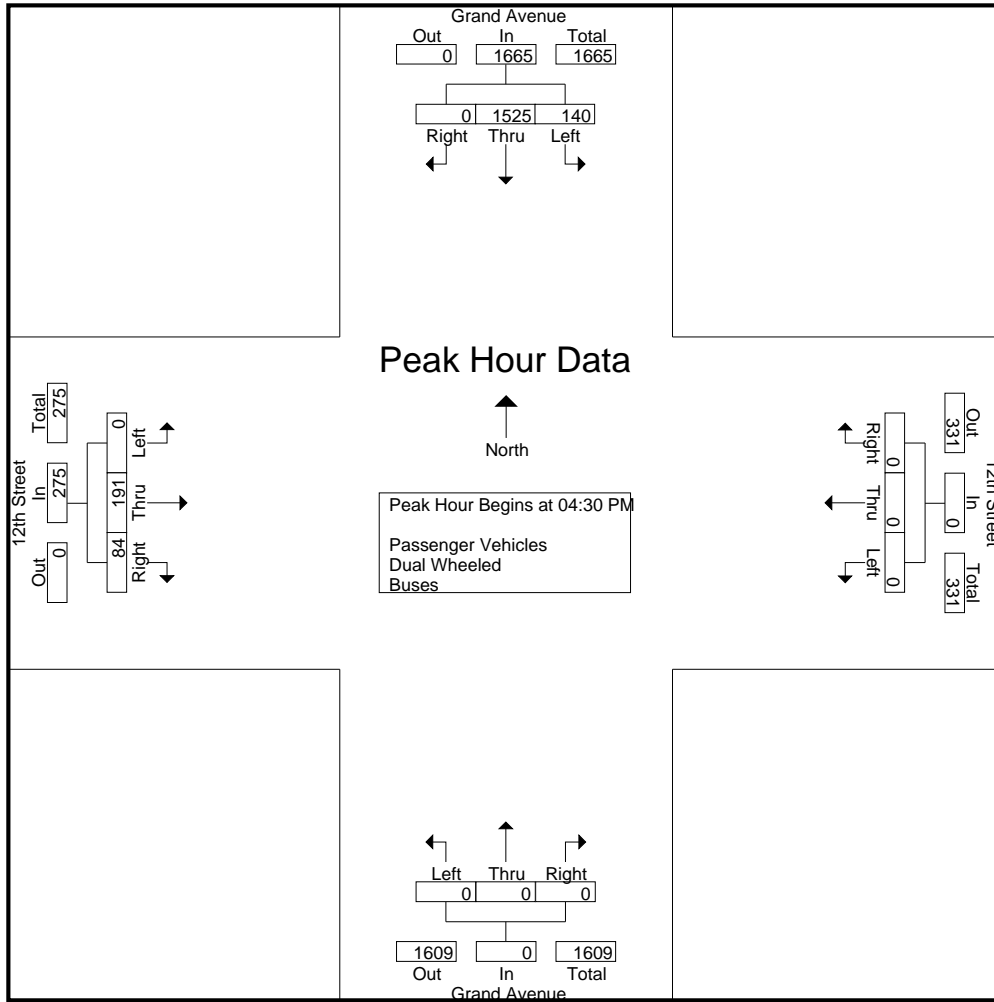
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	24	148	0	172	0	0	0	0	0	0	0	0	0	23	15	38	210
03:15 PM	18	190	0	208	0	0	0	0	0	0	0	0	0	28	12	40	248
03:30 PM	31	221	0	252	0	0	0	0	0	0	0	0	0	36	21	57	309
03:45 PM	22	327	0	349	0	0	0	0	0	0	0	0	0	24	11	35	384
Total	95	886	0	981	0	0	0	0	0	0	0	0	0	111	59	170	1151
04:00 PM	25	397	0	422	0	0	0	0	0	0	0	0	0	30	32	62	484
04:15 PM	20	349	0	369	0	0	0	0	0	0	0	0	0	24	20	44	413
04:30 PM	35	386	0	421	0	0	0	0	0	0	0	0	0	35	15	50	471
04:45 PM	43	409	0	452	0	0	0	0	0	0	0	0	0	42	27	69	521
Total	123	1541	0	1664	0	0	0	0	0	0	0	0	0	131	94	225	1889
05:00 PM	33	377	0	410	0	0	0	0	0	0	0	0	0	56	23	79	489
05:15 PM	29	353	0	382	0	0	0	0	0	0	0	0	0	58	19	77	459
05:30 PM	62	311	0	373	0	0	0	0	0	0	0	0	0	61	31	92	465
05:45 PM	42	375	0	417	0	0	0	0	0	0	0	0	0	46	30	76	493
Total	166	1416	0	1582	0	0	0	0	0	0	0	0	0	221	103	324	1906
Grand Total	384	3843	0	4227	0	0	0	0	0	0	0	0	0	463	256	719	4946
Apprch %	9.1	90.9	0		0	0	0		0	0	0		0	64.4	35.6		
Total %	7.8	77.7	0	85.5	0	0	0	0	0	0	0	0	0	9.4	5.2	14.5	
Passenger Vehicles	361	3699	0	4060	0	0	0	0	0	0	0	0	0	454	252	706	4766
% Passenger Vehicles	94	96.3	0	96	0	0	0	0	0	0	0	0	0	98.1	98.4	98.2	96.4
Dual Wheeled	12	44	0	56	0	0	0	0	0	0	0	0	0	8	4	12	68
% Dual Wheeled	3.1	1.1	0	1.3	0	0	0	0	0	0	0	0	0	1.7	1.6	1.7	1.4
Buses	11	100	0	111	0	0	0	0	0	0	0	0	0	1	0	1	112
% Buses	2.9	2.6	0	2.6	0	0	0	0	0	0	0	0	0	0.2	0	0.1	2.3

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	35	386	0	421	0	0	0	0	0	0	0	0	0	35	15	50	471
04:45 PM	43	409	0	452	0	0	0	0	0	0	0	0	0	42	27	69	521
05:00 PM	33	377	0	410	0	0	0	0	0	0	0	0	0	56	23	79	489
05:15 PM	29	353	0	382	0	0	0	0	0	0	0	0	0	58	19	77	459
Total Volume	140	1525	0	1665	0	0	0	0	0	0	0	0	0	191	84	275	1940
% App. Total	8.4	91.6	0		0	0	0		0	0	0		0	69.5	30.5		
PHF	.814	.932	.000	.921	.000	.000	.000	.000	.000	.000	.000	.000	.000	.823	.778	.870	.931

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:30 PM				03:00 PM				03:00 PM				05:00 PM			
+0 mins.	35	386	0	421	0	0	0	0	0	0	0	0	0	56	23	79
+15 mins.	<b>43</b>	<b>409</b>	0	<b>452</b>	0	0	0	0	0	0	0	0	0	58	19	77
+30 mins.	33	377	0	410	0	0	0	0	0	0	0	0	0	<b>61</b>	<b>31</b>	<b>92</b>
+45 mins.	29	353	0	382	0	0	0	0	0	0	0	0	0	46	30	76
Total Volume	140	1525	0	1665	0	0	0	0	0	0	0	0	0	221	103	324
% App. Total	8.4	91.6	0		0	0	0	0	0	0	0	0	0	68.2	31.8	
PHF	.814	.932	.000	.921	.000	.000	.000	.000	.000	.000	.000	.000	.000	.906	.831	.880



City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

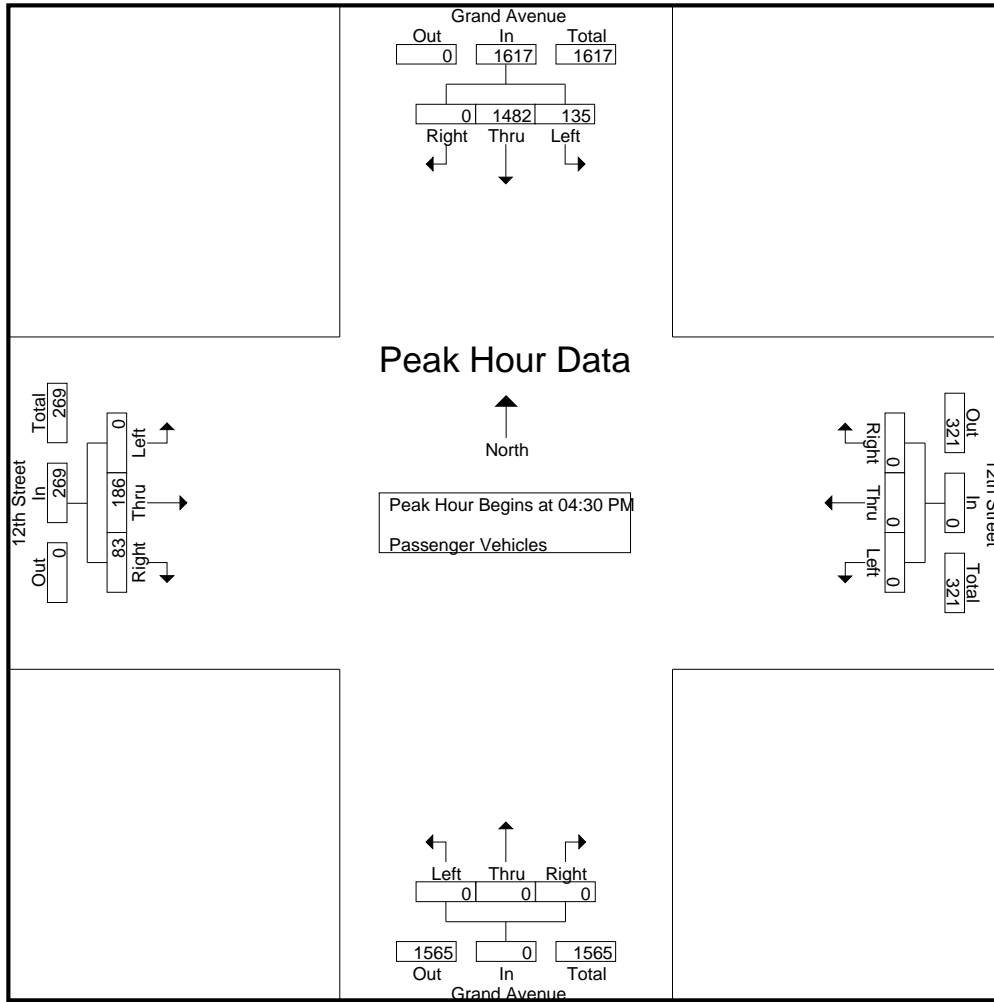
Groups Printed- Passenger Vehicles

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	21	132	0	153	0	0	0	0	0	0	0	0	0	23	15	38	191
03:15 PM	15	176	0	191	0	0	0	0	0	0	0	0	0	28	12	40	231
03:30 PM	28	217	0	245	0	0	0	0	0	0	0	0	0	35	20	55	300
03:45 PM	20	314	0	334	0	0	0	0	0	0	0	0	0	24	11	35	369
Total	84	839	0	923	0	0	0	0	0	0	0	0	0	110	58	168	1091
04:00 PM	23	385	0	408	0	0	0	0	0	0	0	0	0	29	30	59	467
04:15 PM	17	337	0	354	0	0	0	0	0	0	0	0	0	23	20	43	397
04:30 PM	34	374	0	408	0	0	0	0	0	0	0	0	0	34	15	49	457
04:45 PM	41	394	0	435	0	0	0	0	0	0	0	0	0	41	27	68	503
Total	115	1490	0	1605	0	0	0	0	0	0	0	0	0	127	92	219	1824
05:00 PM	32	370	0	402	0	0	0	0	0	0	0	0	0	55	23	78	480
05:15 PM	28	344	0	372	0	0	0	0	0	0	0	0	0	56	18	74	446
05:30 PM	61	298	0	359	0	0	0	0	0	0	0	0	0	60	31	91	450
05:45 PM	41	358	0	399	0	0	0	0	0	0	0	0	0	46	30	76	475
Total	162	1370	0	1532	0	0	0	0	0	0	0	0	0	217	102	319	1851
Grand Total	361	3699	0	4060	0	0	0	0	0	0	0	0	0	454	252	706	4766
Apprch %	8.9	91.1	0		0	0	0		0	0	0		0	64.3	35.7		
Total %	7.6	77.6	0	85.2	0	0	0	0	0	0	0	0	0	9.5	5.3	14.8	

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	34	374	0	408	0	0	0	0	0	0	0	0	0	34	15	49	457
04:45 PM	41	394	0	435	0	0	0	0	0	0	0	0	0	41	27	68	503
05:00 PM	32	370	0	402	0	0	0	0	0	0	0	0	0	55	23	78	480
05:15 PM	28	344	0	372	0	0	0	0	0	0	0	0	0	56	18	74	446
Total Volume	135	1482	0	1617	0	0	0	0	0	0	0	0	0	186	83	269	1886
% App. Total	8.3	91.7	0		0	0	0		0	0	0		0	69.1	30.9		
PHF	.823	.940	.000	.929	.000	.000	.000	.000	.000	.000	.000	.000	.000	.830	.769	.862	.937

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	34	374	0	408	0	0	0	0	0	0	0	0	0	34	15	49
+15 mins.	41	394	0	435	0	0	0	0	0	0	0	0	0	41	27	68
+30 mins.	32	370	0	402	0	0	0	0	0	0	0	0	0	55	23	78
+45 mins.	28	344	0	372	0	0	0	0	0	0	0	0	0	56	18	74
Total Volume	135	1482	0	1617	0	0	0	0	0	0	0	0	0	186	83	269
% App. Total	8.3	91.7	0		0	0	0		0	0	0		0	69.1	30.9	
PHF	.823	.940	.000	.929	.000	.000	.000	.000	.000	.000	.000	.000	.000	.830	.769	.862

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

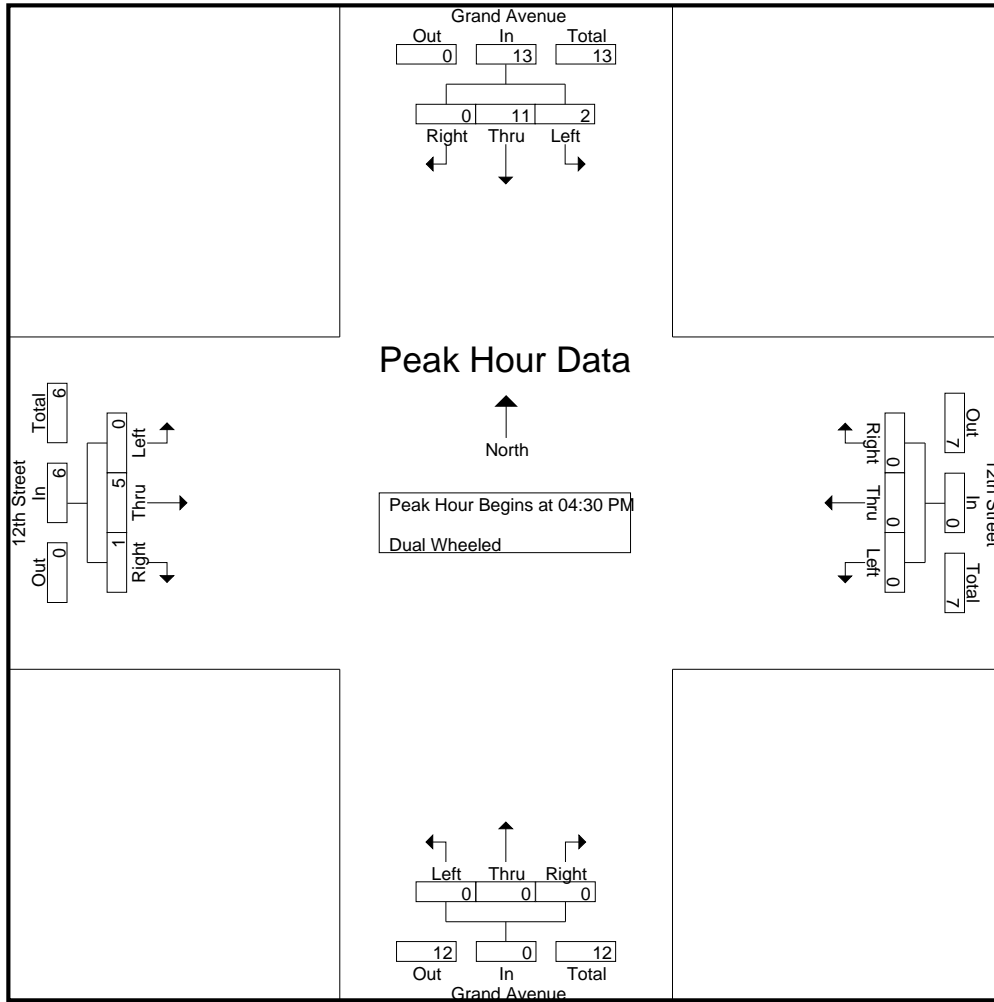
Groups Printed- Dual Wheeled

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
03:00 PM	2	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
03:15 PM	2	5	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
03:30 PM	2	1	0	3	0	0	0	0	0	0	0	0	0	1	1	2	2	5
03:45 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	7	15	0	22	0	0	0	0	0	0	0	0	0	1	1	2	2	24
04:00 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	1	2	3	3	7
04:15 PM	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:30 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	5
04:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	5
Total	4	13	0	17	0	0	0	0	0	0	0	0	0	3	2	5	5	22
05:00 PM	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	1	1	4
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	3	5
05:30 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	1	0	1	1	7
05:45 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	1	16	0	17	0	0	0	0	0	0	0	0	0	4	1	5	5	22
Grand Total	12	44	0	56	0	0	0	0	0	0	0	0	0	8	4	12	12	68
Apprch %	21.4	78.6	0		0	0	0		0	0	0		0	66.7	33.3			
Total %	17.6	64.7	0	82.4	0	0	0	0	0	0	0	0	0	11.8	5.9	17.6		

Start Time	Grand Avenue Southbound				12th Street Westbound				Grand Avenue Northbound				12th Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	5
04:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	5
05:00 PM	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	1	1	4
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	3	5
Total Volume	2	11	0	13	0	0	0	0	0	0	0	0	0	5	1	6	6	19
% App. Total	15.4	84.6	0		0	0	0		0	0	0		0	83.3	16.7			
PHF	.500	.688	.000	.813	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.250	.500		.950

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



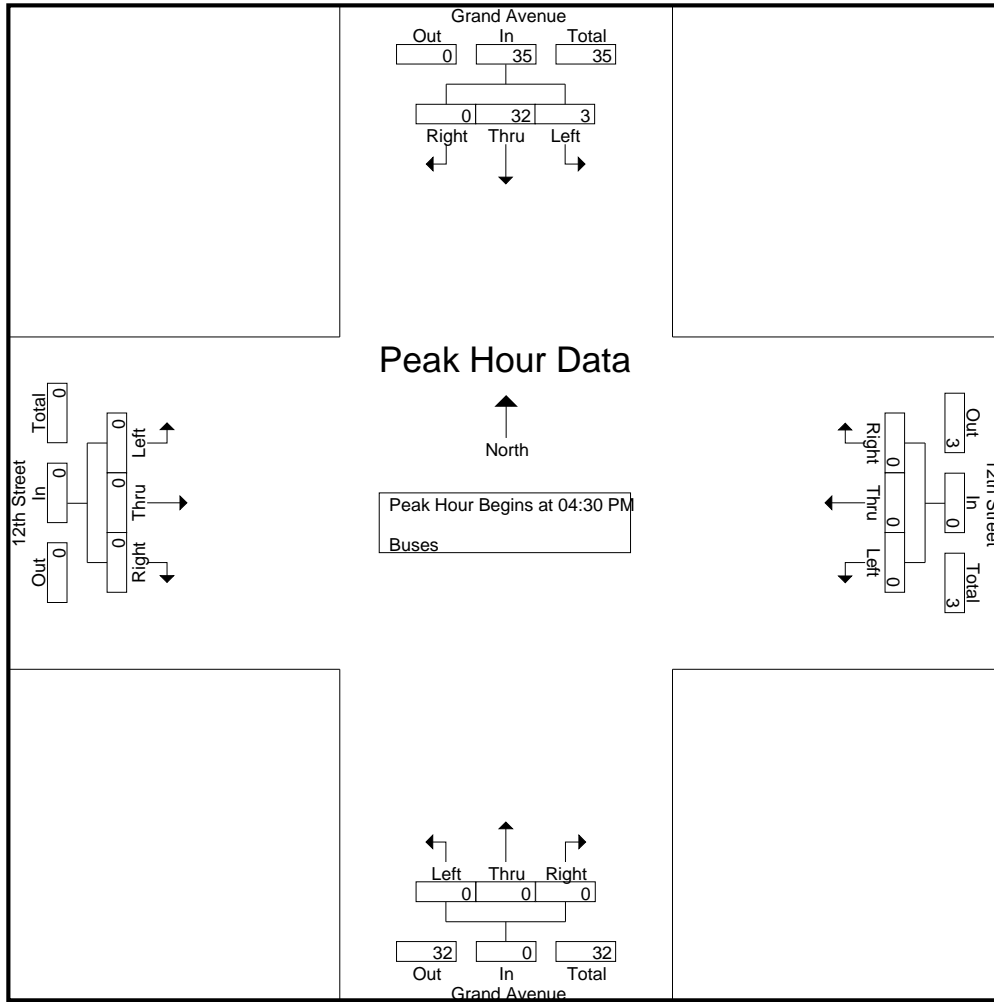
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	1	3	0	4	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	4	0	4	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3
Total Volume	2	11	0	13	0	0	0	0	0	0	0	0	0	5	1	6
% App. Total	15.4	84.6	0		0	0	0	0	0	0	0	0	0	83.3	16.7	
PHF	.500	.688	.000	.813	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.250	.500



City of Los Angeles  
 N/S: Grand Avenue  
 E/W: 12th Street  
 Weather: Clear

File Name : 03\_LAC\_Grand\_12th PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	2	11	0	13	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	7	0	8	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	3	32	0	35	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	8.6	91.4	0		0	0	0		0	0	0		0	0	0	
PHF	.375	.727	.000	.673	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

North/South Grand Avenue

East/West 12th Street

Day: Tuesday Date: December 17, 2019 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8766

	N/B	S/B	E/B	W/B
DUAL-WHEELED BIKES	0	94	20	0
BIKES	23	66	41	14
BUSES	0	230	6	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	0 7.00	165 8.30	39 8.15	0 7.00
PM PK 15 MIN	0 3.00	452 4.45	92 5.30	0 3.00
AM PK HOUR	0 7.00	600 7.45	151 8.00	0 7.00
PM PK HOUR	0 3.00	1665 4.30	324 5.00	0 3.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	92	429	0	521
8-9	125	461	0	586
9-10	106	418	0	524
3-4	95	886	0	981
4-5	123	1541	0	1664
5-6	166	1416	0	1582
TOTAL	707	5151	0	5858

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
521	22	6	48	24
586	36	2	93	6
524	26	1	72	5
981	44	6	55	7
1664	56	12	76	27
1582	42	6	71	14
5858	226	33	415	83

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	55	56	111
8-9	0	86	65	151
9-10	0	66	58	124
3-4	0	111	59	170
4-5	0	131	94	225
5-6	0	221	103	324
TOTAL	0	670	435	1105

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
111	31	5	57	7
151	52	1	76	2
124	48	5	44	2
170	51	5	81	7
225	65	4	84	11
324	65	0	97	2
1105	312	20	439	31

**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Grand Avenue				
<b>East/West:</b>	12th Street				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	Yes	<b>District:</b>	Central	<b>I/S Code:</b>	8766
<b>Hours:</b>	7-10 AM, 3-6 PM		<b>Staff:</b>	CUI	

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	1	2	3
8-9	1	1	0	2
9-10	1	3	2	6
3-4	2	3	0	5
4-5	0	2	0	2
5-6	0	5	0	5
<b>TOTAL</b>	<b>4</b>	<b>15</b>	<b>4</b>	<b>23</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	3	5	1	9	12
8-9	3	12	1	16	18
9-10	3	6	1	10	16
3-4	3	9	1	13	18
4-5	2	14	0	16	18
5-6	0	2	0	2	7
<b>TOTAL</b>	<b>14</b>	<b>48</b>	<b>4</b>	<b>66</b>	<b>89</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	9	1	10
8-9	1	5	3	9
9-10	0	7	3	10
3-4	0	2	1	3
4-5	2	1	2	5
5-6	0	4	0	4
<b>TOTAL</b>	<b>3</b>	<b>28</b>	<b>10</b>	<b>41</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	1	1	0	2	12
8-9	0	0	0	0	9
9-10	0	1	0	1	11
3-4	0	1	0	1	4
4-5	2	0	0	2	7
5-6	3	5	0	8	12
<b>TOTAL</b>	<b>6</b>	<b>8</b>	<b>0</b>	<b>14</b>	<b>55</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	0	1	1	0	2
- No helmet riders	17	35	26	10	88
- Sidewalk Riding	21	22	12	12	67
- Wrong way riding	23	3	3	15	44

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP



**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Grand Avenue				
<b>East/West:</b>	12th Street				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Central	<b>I/S Code:</b>	8766
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	13	7	8	4	32
7:15-7:30	20	5	21	9	55
7:30-7:45	15	8	15	10	48
7:45-8:00	24	8	20	13	65
8:00-8:15	27	12	20	19	78
8:15-8:30	26	7	28	12	73
8:30-8:45	24	7	12	9	52
8:45-9:00	22	12	18	13	65
9:00-9:15	21	9	11	13	54
9:15-9:30	26	6	7	15	54
9:30-9:45	16	7	15	22	60
9:45-10:00	14	5	13	3	35

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	72	28	64	36	200
8 - 9	99	38	78	53	268
9 - 10	77	27	46	53	203
<b>TOTAL</b>	<b>248</b>	<b>93</b>	<b>188</b>	<b>142</b>	<b>671</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	11	6	20	9	46
3:15-3:30	14	24	17	15	70
3:30-3:45	14	15	23	11	63
3:45-4:00	23	5	28	21	77
4:00-4:15	29	17	15	24	85
4:15-4:30	15	13	25	18	71
4:30-4:45	27	20	32	12	91
4:45-5:00	32	18	23	15	88
5:00-5:15	32	10	34	12	88
5:15-5:30	13	11	25	20	69
5:30-5:45	27	17	23	19	86
5:45-6:00	13	10	17	14	54

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	62	50	88	56	256
4 - 5	103	68	95	69	335
5 - 6	85	48	99	65	297
<b>TOTAL</b>	<b>250</b>	<b>166</b>	<b>282</b>	<b>190</b>	<b>888</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
1	2	0	1	4
47	18	20	31	116

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

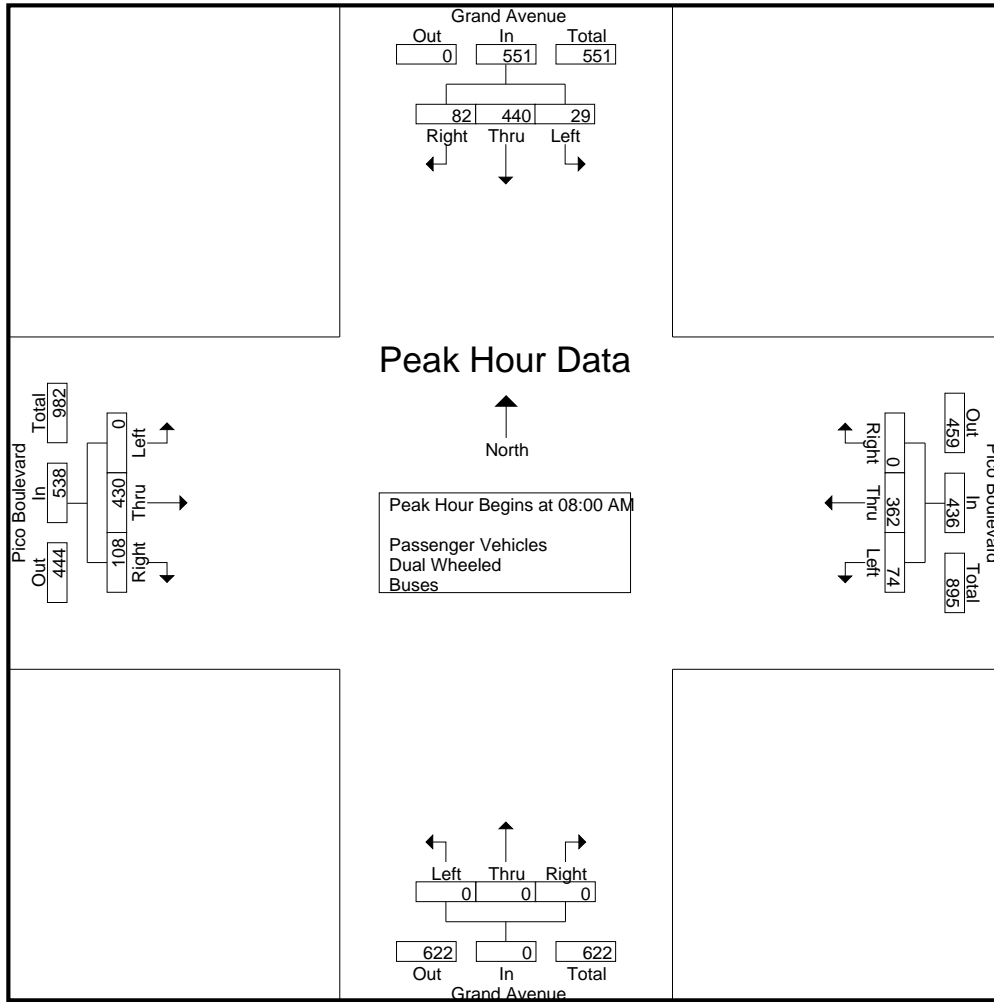
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	8	81	17	106	15	81	0	96	0	0	0	0	0	49	6	55	257
07:15 AM	12	100	15	127	11	86	0	97	0	0	0	0	0	65	14	79	303
07:30 AM	2	114	15	131	8	91	0	99	0	0	0	0	0	88	23	111	341
07:45 AM	8	97	20	125	14	80	0	94	0	0	0	0	0	96	21	117	336
Total	30	392	67	489	48	338	0	386	0	0	0	0	0	298	64	362	1237
08:00 AM	5	124	24	153	12	89	0	101	0	0	0	0	0	103	19	122	376
08:15 AM	7	89	23	119	16	81	0	97	0	0	0	0	0	107	30	137	353
08:30 AM	8	120	19	147	23	92	0	115	0	0	0	0	0	107	25	132	394
08:45 AM	9	107	16	132	23	100	0	123	0	0	0	0	0	113	34	147	402
Total	29	440	82	551	74	362	0	436	0	0	0	0	0	430	108	538	1525
09:00 AM	8	98	20	126	17	87	0	104	0	0	0	0	0	96	22	118	348
09:15 AM	4	105	17	126	15	71	0	86	0	0	0	0	0	67	25	92	304
09:30 AM	7	92	13	112	13	68	0	81	0	0	0	0	0	77	31	108	301
09:45 AM	10	82	16	108	18	53	0	71	0	0	0	0	0	91	36	127	306
Total	29	377	66	472	63	279	0	342	0	0	0	0	0	331	114	445	1259
Grand Total	88	1209	215	1512	185	979	0	1164	0	0	0	0	0	1059	286	1345	4021
Apprch %	5.8	80	14.2		15.9	84.1	0		0	0	0	0	0	78.7	21.3		
Total %	2.2	30.1	5.3	37.6	4.6	24.3	0	28.9	0	0	0	0	0	26.3	7.1	33.4	
Passenger Vehicles	86	1068	212	1366	155	911	0	1066	0	0	0	0	0	1014	282	1296	3728
% Passenger Vehicles	97.7	88.3	98.6	90.3	83.8	93.1	0	91.6	0	0	0	0	0	95.8	98.6	96.4	92.7
Dual Wheeled	2	24	3	29	3	34	0	37	0	0	0	0	0	20	3	23	89
% Dual Wheeled	2.3	2	1.4	1.9	1.6	3.5	0	3.2	0	0	0	0	0	1.9	1	1.7	2.2
Buses	0	117	0	117	27	34	0	61	0	0	0	0	0	25	1	26	204
% Buses	0	9.7	0	7.7	14.6	3.5	0	5.2	0	0	0	0	0	2.4	0.3	1.9	5.1

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	5	124	24	153	12	89	0	101	0	0	0	0	0	103	19	122	376
08:15 AM	7	89	23	119	16	81	0	97	0	0	0	0	0	107	30	137	353
08:30 AM	8	120	19	147	23	92	0	115	0	0	0	0	0	107	25	132	394
08:45 AM	9	107	16	132	23	100	0	123	0	0	0	0	0	113	34	147	402
Total Volume	29	440	82	551	74	362	0	436	0	0	0	0	0	430	108	538	1525
% App. Total	5.3	79.9	14.9		17	83	0		0	0	0	0	0	79.9	20.1		
PHF	.806	.887	.854	.900	.804	.905	.000	.886	.000	.000	.000	.000	.000	.951	.794	.915	.948

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:15 AM				07:00 AM				08:00 AM			
+0 mins.	5	<b>124</b>	<b>24</b>	<b>153</b>	16	81	0	97	0	0	0	0	0	103	19	122
+15 mins.	7	89	23	119	<b>23</b>	92	0	115	0	0	0	0	0	107	30	137
+30 mins.	8	120	19	147	23	<b>100</b>	0	<b>123</b>	0	0	0	0	0	107	25	132
+45 mins.	<b>9</b>	107	16	132	17	87	0	104	0	0	0	0	0	<b>113</b>	<b>34</b>	<b>147</b>
Total Volume	29	440	82	551	79	360	0	439	0	0	0	0	0	430	108	538
% App. Total	5.3	79.9	14.9		18	82	0		0	0	0		0	79.9	20.1	
PHF	.806	.887	.854	.900	.859	.900	.000	.892	.000	.000	.000	.000	.000	.951	.794	.915

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

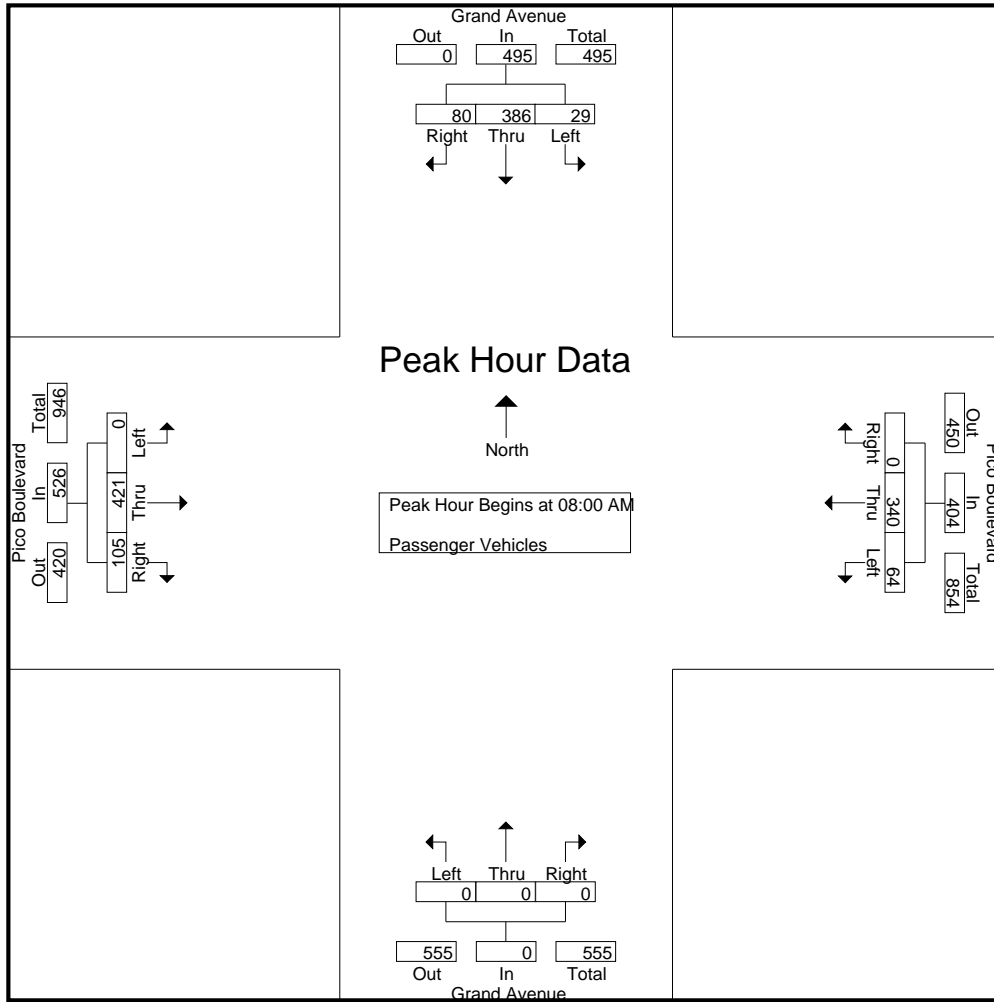
Groups Printed- Passenger Vehicles

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	8	72	17	97	12	77	0	89	0	0	0	0	0	43	6	49	235
07:15 AM	11	88	15	114	9	79	0	88	0	0	0	0	0	58	14	72	274
07:30 AM	2	103	15	120	6	83	0	89	0	0	0	0	0	85	23	108	317
07:45 AM	8	87	19	114	12	73	0	85	0	0	0	0	0	92	21	113	312
Total	29	350	66	445	39	312	0	351	0	0	0	0	0	278	64	342	1138
08:00 AM	5	103	23	131	10	86	0	96	0	0	0	0	0	101	18	119	346
08:15 AM	7	80	23	110	13	73	0	86	0	0	0	0	0	103	30	133	329
08:30 AM	8	108	18	134	21	85	0	106	0	0	0	0	0	106	24	130	370
08:45 AM	9	95	16	120	20	96	0	116	0	0	0	0	0	111	33	144	380
Total	29	386	80	495	64	340	0	404	0	0	0	0	0	421	105	526	1425
09:00 AM	7	84	20	111	15	80	0	95	0	0	0	0	0	93	22	115	321
09:15 AM	4	92	17	113	11	69	0	80	0	0	0	0	0	63	25	88	281
09:30 AM	7	82	13	102	11	64	0	75	0	0	0	0	0	74	31	105	282
09:45 AM	10	74	16	100	15	46	0	61	0	0	0	0	0	85	35	120	281
Total	28	332	66	426	52	259	0	311	0	0	0	0	0	315	113	428	1165
Grand Total	86	1068	212	1366	155	911	0	1066	0	0	0	0	0	1014	282	1296	3728
Apprch %	6.3	78.2	15.5		14.5	85.5	0		0	0	0	0	0	78.2	21.8		
Total %	2.3	28.6	5.7	36.6	4.2	24.4	0	28.6	0	0	0	0	0	27.2	7.6	34.8	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	5	103	<b>23</b>	131	10	86	0	96	0	0	0	0	0	101	18	119	346
08:15 AM	7	80	23	110	13	73	0	86	0	0	0	0	0	103	30	133	329
08:30 AM	8	<b>108</b>	18	<b>134</b>	<b>21</b>	85	0	106	0	0	0	0	0	106	24	130	370
08:45 AM	<b>9</b>	95	16	120	20	<b>96</b>	0	<b>116</b>	0	0	0	0	0	<b>111</b>	<b>33</b>	<b>144</b>	<b>380</b>
Total Volume	29	386	80	495	64	340	0	404	0	0	0	0	0	421	105	526	1425
% App. Total	5.9	78	16.2		15.8	84.2	0		0	0	0	0	0	80	20		
PHF	.806	.894	.870	.924	.762	.885	.000	.871	.000	.000	.000	.000	.000	.948	.795	.913	.938

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	5	103	<b>23</b>	131	10	86	0	96	0	0	0	0	0	101	18	119
+15 mins.	7	80	23	110	13	73	0	86	0	0	0	0	0	103	30	133
+30 mins.	8	<b>108</b>	18	<b>134</b>	<b>21</b>	85	0	106	0	0	0	0	0	106	24	130
+45 mins.	<b>9</b>	95	16	120	20	<b>96</b>	0	<b>116</b>	0	0	0	0	0	<b>111</b>	<b>33</b>	<b>144</b>
Total Volume	29	386	80	495	64	340	0	404	0	0	0	0	0	421	105	526
% App. Total	5.9	78	16.2		15.8	84.2	0		0	0	0		0	80	20	
PHF	.806	.894	.870	.924	.762	.885	.000	.871	.000	.000	.000	.000	.000	.948	.795	.913

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

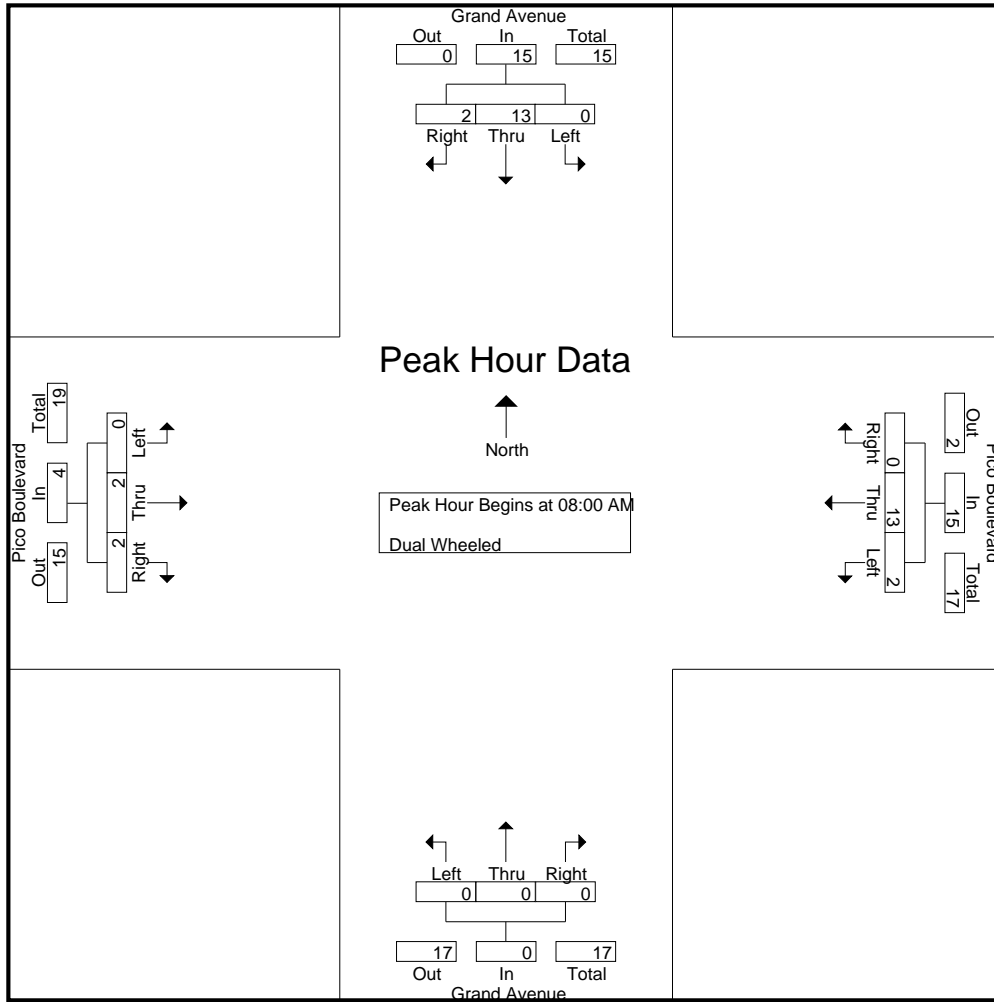
Groups Printed- Dual Wheeled

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	4	0	4	7
07:15 AM	1	2	0	3	0	4	0	4	0	0	0	0	0	3	0	3	10
07:30 AM	0	1	0	1	0	5	0	5	0	0	0	0	0	1	0	1	7
07:45 AM	0	1	1	2	0	3	0	3	0	0	0	0	0	1	0	1	6
<b>Total</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>30</b>
08:00 AM	0	7	1	8	1	1	0	2	0	0	0	0	0	1	1	2	12
08:15 AM	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	6
08:30 AM	0	4	1	5	0	3	0	3	0	0	0	0	0	1	0	1	9
08:45 AM	0	2	0	2	1	3	0	4	0	0	0	0	0	0	1	1	7
<b>Total</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>15</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>34</b>
09:00 AM	1	2	0	3	0	2	0	2	0	0	0	0	0	0	0	0	5
09:15 AM	0	2	0	2	1	1	0	2	0	0	0	0	0	4	0	4	8
09:30 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
09:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	5	1	6	9
<b>Total</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>10</b>	<b>25</b>
<b>Grand Total</b>	<b>2</b>	<b>24</b>	<b>3</b>	<b>29</b>	<b>3</b>	<b>34</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>3</b>	<b>23</b>	<b>89</b>
<b>Apprch %</b>	<b>6.9</b>	<b>82.8</b>	<b>10.3</b>		<b>8.1</b>	<b>91.9</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>13</b>		
<b>Total %</b>	<b>2.2</b>	<b>27</b>	<b>3.4</b>	<b>32.6</b>	<b>3.4</b>	<b>38.2</b>	<b>0</b>	<b>41.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22.5</b>	<b>3.4</b>	<b>25.8</b>	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	7	1	8	1	1	0	2	0	0	0	0	0	1	1	2	12
08:15 AM	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	6
08:30 AM	0	4	1	5	0	3	0	3	0	0	0	0	0	1	0	1	9
08:45 AM	0	2	0	2	1	3	0	4	0	0	0	0	0	0	1	1	7
<b>Total Volume</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>15</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>34</b>
<b>% App. Total</b>	<b>0</b>	<b>86.7</b>	<b>13.3</b>		<b>13.3</b>	<b>86.7</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>50</b>		
<b>PHF</b>	<b>.000</b>	<b>.464</b>	<b>.500</b>	<b>.469</b>	<b>.500</b>	<b>.542</b>	<b>.000</b>	<b>.625</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.500</b>	<b>.500</b>	<b>.500</b>	<b>.708</b>

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	7	1	8	1	1	0	2	0	0	0	0	0	1	1	2
+15 mins.	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0
+30 mins.	0	4	1	5	0	3	0	3	0	0	0	0	0	1	0	1
+45 mins.	0	2	0	2	1	3	0	4	0	0	0	0	0	0	1	1
Total Volume	0	13	2	15	2	13	0	15	0	0	0	0	0	2	2	4
% App. Total	0	86.7	13.3		13.3	86.7	0		0	0	0		0	50	50	
PHF	.000	.464	.500	.469	.500	.542	.000	.625	.000	.000	.000	.000	.000	.500	.500	.500

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Buses

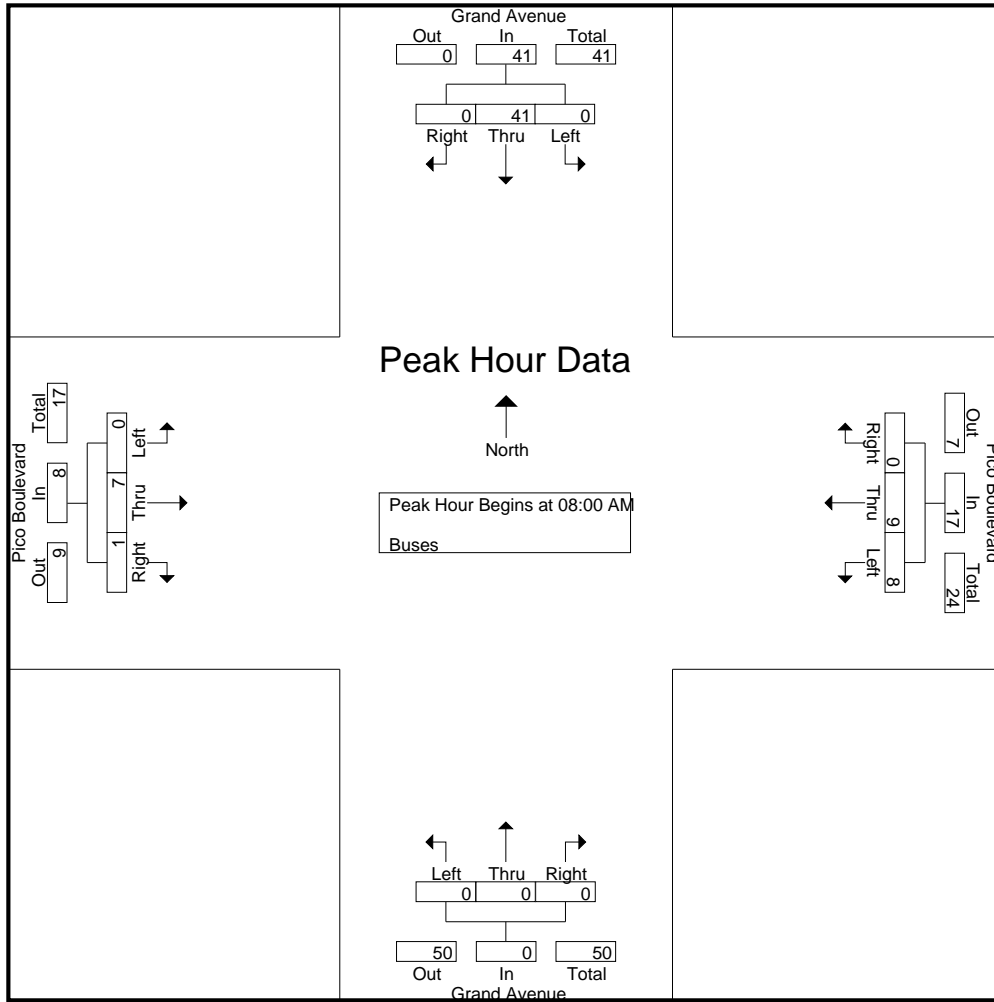
Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	7	0	7	3	3	0	6	0	0	0	0	0	2	0	2	15
07:15 AM	0	10	0	10	2	3	0	5	0	0	0	0	0	4	0	4	19
07:30 AM	0	10	0	10	2	3	0	5	0	0	0	0	0	2	0	2	17
07:45 AM	0	9	0	9	2	4	0	6	0	0	0	0	0	3	0	3	18
Total	0	36	0	36	9	13	0	22	0	0	0	0	0	11	0	11	69
08:00 AM	0	14	0	14	1	2	0	3	0	0	0	0	0	1	0	1	18
08:15 AM	0	9	0	9	3	2	0	5	0	0	0	0	0	4	0	4	18
08:30 AM	0	8	0	8	2	4	0	6	0	0	0	0	0	0	1	1	15
08:45 AM	0	10	0	10	2	1	0	3	0	0	0	0	0	2	0	2	15
Total	0	41	0	41	8	9	0	17	0	0	0	0	0	7	1	8	66
09:00 AM	0	12	0	12	2	5	0	7	0	0	0	0	0	3	0	3	22
09:15 AM	0	11	0	11	3	1	0	4	0	0	0	0	0	0	0	0	15
09:30 AM	0	9	0	9	2	2	0	4	0	0	0	0	0	3	0	3	16
09:45 AM	0	8	0	8	3	4	0	7	0	0	0	0	0	1	0	1	16
Total	0	40	0	40	10	12	0	22	0	0	0	0	0	7	0	7	69
Grand Total	0	117	0	117	27	34	0	61	0	0	0	0	0	25	1	26	204
Apprch %	0	100	0		44.3	55.7	0		0	0	0	0	0	96.2	3.8		
Total %	0	57.4	0	57.4	13.2	16.7	0	29.9	0	0	0	0	0	12.3	0.5	12.7	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	<b>14</b>	0	<b>14</b>	1	2	0	3	0	0	0	0	0	1	0	1	<b>18</b>
08:15 AM	0	9	0	9	3	2	0	5	0	0	0	0	0	4	0	4	18
08:30 AM	0	8	0	8	2	<b>4</b>	0	<b>6</b>	0	0	0	0	0	0	<b>1</b>	1	15
08:45 AM	0	10	0	10	2	1	0	3	0	0	0	0	0	2	0	2	15
Total Volume	0	41	0	41	8	9	0	17	0	0	0	0	0	7	1	8	66
% App. Total	0	100	0		47.1	52.9	0		0	0	0	0	0	87.5	12.5		
PHF	.000	.732	.000	.732	.667	.563	.000	.708	.000	.000	.000	.000	.000	.438	.250	.500	.917



City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico AM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	14	0	14	1	2	0	3	0	0	0	0	0	1	0	1
+15 mins.	0	9	0	9	3	2	0	5	0	0	0	0	0	4	0	4
+30 mins.	0	8	0	8	2	4	0	6	0	0	0	0	0	0	1	1
+45 mins.	0	10	0	10	2	1	0	3	0	0	0	0	0	2	0	2
Total Volume	0	41	0	41	8	9	0	17	0	0	0	0	0	7	1	8
% App. Total	0	100	0		47.1	52.9	0		0	0	0		0	87.5	12.5	
PHF	.000	.732	.000	.732	.667	.563	.000	.708	.000	.000	.000	.000	.000	.438	.250	.500

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

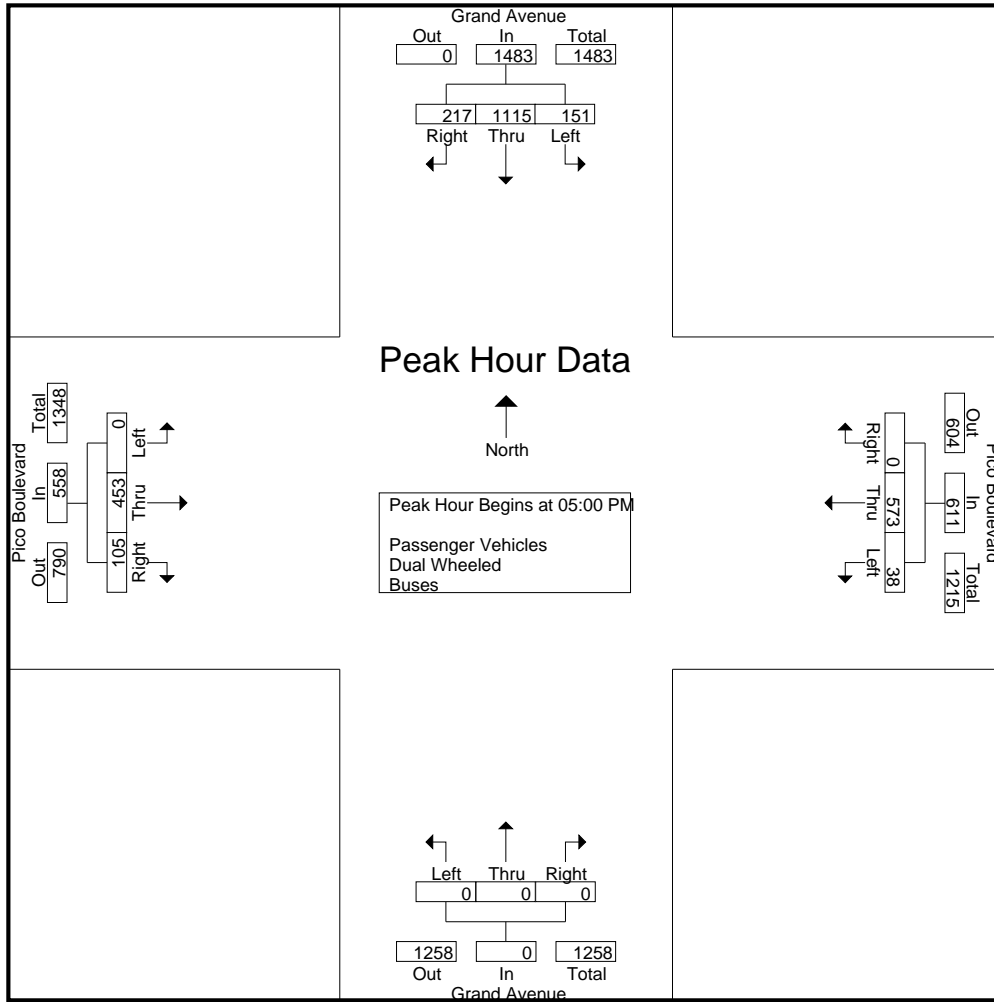
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	10	137	13	160	16	60	0	76	0	0	0	0	0	88	19	107	343
03:15 PM	20	162	15	197	14	94	0	108	0	0	0	0	0	91	22	113	418
03:30 PM	16	216	14	246	8	76	0	84	0	0	0	0	0	87	27	114	444
03:45 PM	19	291	15	325	12	94	0	106	0	0	0	0	0	95	21	116	547
Total	65	806	57	928	50	324	0	374	0	0	0	0	0	361	89	450	1752
04:00 PM	23	365	31	419	13	85	0	98	0	0	0	0	0	102	16	118	635
04:15 PM	12	319	30	361	10	96	0	106	0	0	0	0	0	125	24	149	616
04:30 PM	28	338	21	387	13	96	0	109	0	0	0	0	0	117	29	146	642
04:45 PM	30	359	26	415	10	116	0	126	0	0	0	0	0	97	22	119	660
Total	93	1381	108	1582	46	393	0	439	0	0	0	0	0	441	91	532	2553
05:00 PM	32	328	41	401	9	122	0	131	0	0	0	0	0	109	29	138	670
05:15 PM	20	281	55	356	10	134	0	144	0	0	0	0	0	133	27	160	660
05:30 PM	51	221	67	339	6	157	0	163	0	0	0	0	0	102	32	134	636
05:45 PM	48	285	54	387	13	160	0	173	0	0	0	0	0	109	17	126	686
Total	151	1115	217	1483	38	573	0	611	0	0	0	0	0	453	105	558	2652
Grand Total	309	3302	382	3993	134	1290	0	1424	0	0	0	0	0	1255	285	1540	6957
Apprch %	7.7	82.7	9.6		9.4	90.6	0		0	0	0	0	0	81.5	18.5		
Total %	4.4	47.5	5.5	57.4	1.9	18.5	0	20.5	0	0	0	0	0	18	4.1	22.1	
Passenger Vehicles	302	3175	367	3844	99	1231	0	1330	0	0	0	0	0	1196	279	1475	6649
% Passenger Vehicles	97.7	96.2	96.1	96.3	73.9	95.4	0	93.4	0	0	0	0	0	95.3	97.9	95.8	95.6
Dual Wheeled	5	40	11	56	8	12	0	20	0	0	0	0	0	36	6	42	118
% Dual Wheeled	1.6	1.2	2.9	1.4	6	0.9	0	1.4	0	0	0	0	0	2.9	2.1	2.7	1.7
Buses	2	87	4	93	27	47	0	74	0	0	0	0	0	23	0	23	190
% Buses	0.6	2.6	1	2.3	20.1	3.6	0	5.2	0	0	0	0	0	1.8	0	1.5	2.7

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	32	<b>328</b>	41	<b>401</b>	9	122	0	131	0	0	0	0	0	109	29	138	670
05:15 PM	20	281	55	356	10	134	0	144	0	0	0	0	0	<b>133</b>	27	<b>160</b>	660
05:30 PM	<b>51</b>	221	<b>67</b>	339	6	157	0	163	0	0	0	0	0	102	<b>32</b>	134	636
05:45 PM	48	285	54	387	<b>13</b>	<b>160</b>	0	<b>173</b>	0	0	0	0	0	109	17	126	<b>686</b>
Total Volume	151	1115	217	1483	38	573	0	611	0	0	0	0	0	453	105	558	2652
% App. Total	10.2	75.2	14.6		6.2	93.8	0		0	0	0	0	0	81.2	18.8		
PHF	.740	.850	.810	.925	.731	.895	.000	.883	.000	.000	.000	.000	.000	.852	.820	.872	.966

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				03:00 PM				04:30 PM			
+0 mins.	23	<b>365</b>	<b>31</b>	<b>419</b>	9	122	0	131	0	0	0	0	0	117	<b>29</b>	146
+15 mins.	12	319	30	361	10	134	0	144	0	0	0	0	0	97	22	119
+30 mins.	28	338	21	387	6	157	0	163	0	0	0	0	0	109	29	138
+45 mins.	<b>30</b>	359	26	415	<b>13</b>	<b>160</b>	0	<b>173</b>	0	0	0	0	0	<b>133</b>	27	<b>160</b>
Total Volume	93	1381	108	1582	38	573	0	611	0	0	0	0	0	456	107	563
% App. Total	5.9	87.3	6.8		6.2	93.8	0		0	0	0	0	0	81	19	
PHF	.775	.946	.871	.944	.731	.895	.000	.883	.000	.000	.000	.000	.000	.857	.922	.880

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Passenger Vehicles

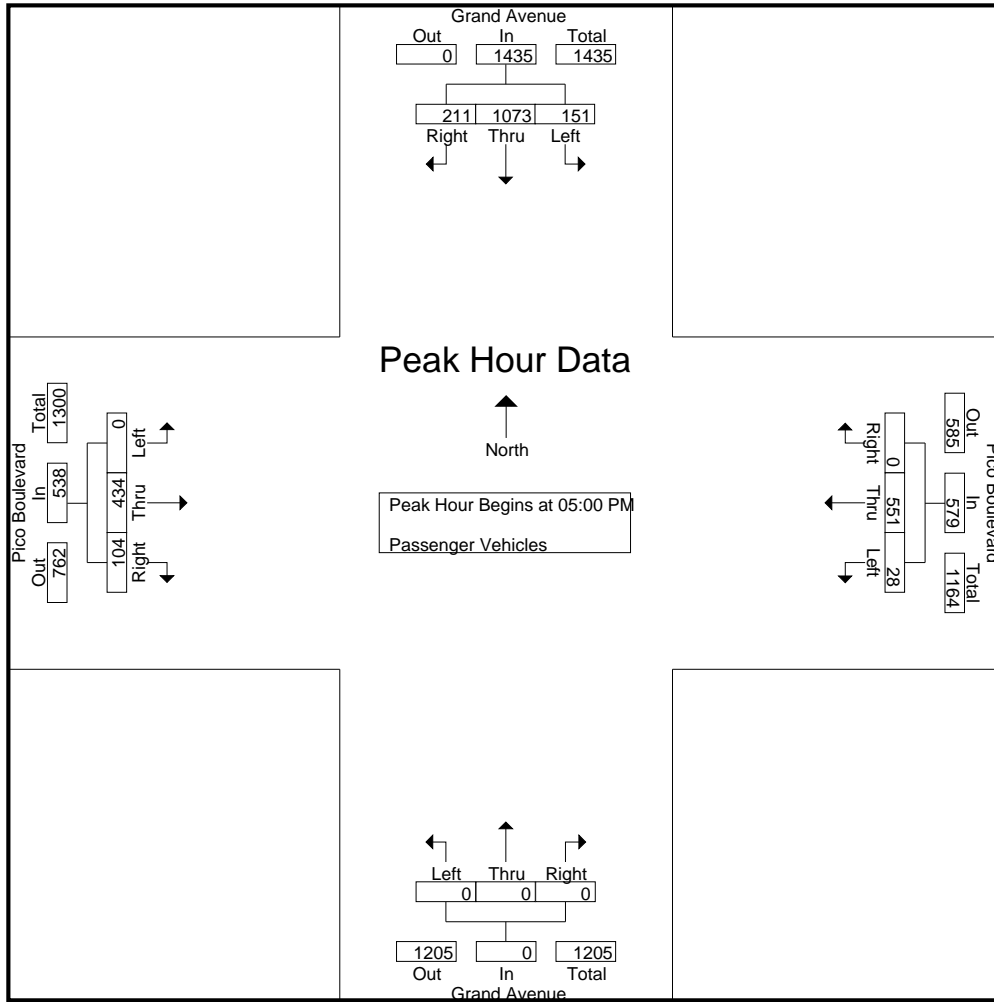
Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	10	123	12	145	12	57	0	69	0	0	0	0	0	80	17	97	311
03:15 PM	18	151	15	184	10	89	0	99	0	0	0	0	0	88	22	110	393
03:30 PM	15	211	14	240	5	72	0	77	0	0	0	0	0	78	27	105	422
03:45 PM	19	280	14	313	8	88	0	96	0	0	0	0	0	92	21	113	522
Total	62	765	55	882	35	306	0	341	0	0	0	0	0	338	87	425	1648
04:00 PM	22	353	27	402	10	82	0	92	0	0	0	0	0	101	16	117	611
04:15 PM	11	308	29	348	7	91	0	98	0	0	0	0	0	122	22	144	590
04:30 PM	27	329	20	376	10	91	0	101	0	0	0	0	0	110	28	138	615
04:45 PM	29	347	25	401	9	110	0	119	0	0	0	0	0	91	22	113	633
Total	89	1337	101	1527	36	374	0	410	0	0	0	0	0	424	88	512	2449
05:00 PM	32	321	40	393	6	115	0	121	0	0	0	0	0	105	29	134	648
05:15 PM	20	273	53	346	6	128	0	134	0	0	0	0	0	128	27	155	635
05:30 PM	51	211	65	327	6	152	0	158	0	0	0	0	0	97	32	129	614
05:45 PM	48	268	53	369	10	156	0	166	0	0	0	0	0	104	16	120	655
Total	151	1073	211	1435	28	551	0	579	0	0	0	0	0	434	104	538	2552
Grand Total	302	3175	367	3844	99	1231	0	1330	0	0	0	0	0	1196	279	1475	6649
Apprch %	7.9	82.6	9.5		7.4	92.6	0		0	0	0	0	0	81.1	18.9		
Total %	4.5	47.8	5.5	57.8	1.5	18.5	0	20	0	0	0	0	0	18	4.2	22.2	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	32	<b>321</b>	40	<b>393</b>	6	115	0	121	0	0	0	0	0	105	29	134	648
05:15 PM	20	273	53	346	6	128	0	134	0	0	0	0	0	<b>128</b>	27	<b>155</b>	635
05:30 PM	<b>51</b>	211	<b>65</b>	327	6	152	0	158	0	0	0	0	0	97	<b>32</b>	129	614
05:45 PM	48	268	53	369	<b>10</b>	<b>156</b>	0	<b>166</b>	0	0	0	0	0	104	16	120	<b>655</b>
Total Volume	151	1073	211	1435	28	551	0	579	0	0	0	0	0	434	104	538	2552
% App. Total	10.5	74.8	14.7		4.8	95.2	0		0	0	0	0	0	80.7	19.3		
PHF	.740	.836	.812	.913	.700	.883	.000	.872	.000	.000	.000	.000	.000	.848	.813	.868	.974

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 05:00 PM

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	32	<b>321</b>	40	<b>393</b>	6	115	0	121	0	0	0	0	0	105	29	134
+15 mins.	20	273	53	346	6	128	0	134	0	0	0	0	0	<b>128</b>	27	<b>155</b>
+30 mins.	<b>51</b>	211	<b>65</b>	327	6	152	0	158	0	0	0	0	0	97	<b>32</b>	129
+45 mins.	48	268	53	369	<b>10</b>	<b>156</b>	0	<b>166</b>	0	0	0	0	0	104	16	120
Total Volume	151	1073	211	1435	28	551	0	579	0	0	0	0	0	434	104	538
% App. Total	10.5	74.8	14.7		4.8	95.2	0		0	0	0	0	0	80.7	19.3	
PHF	.740	.836	.812	.913	.700	.883	.000	.872	.000	.000	.000	.000	.000	.848	.813	.868

City of Los Angeles  
 N/S: Grand Avenue  
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File Name : 04\_LAC\_Grand\_Pico PM  
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 Page No : 1

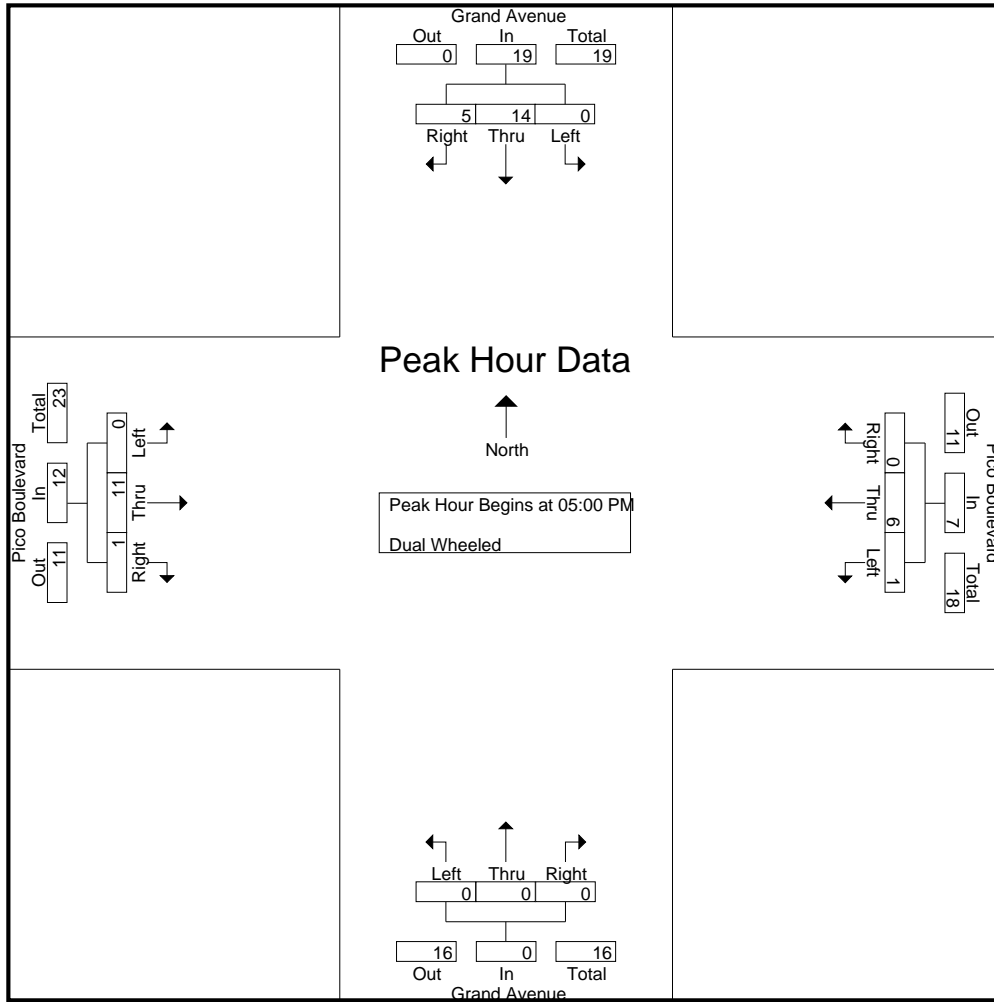
Groups Printed- Dual Wheeled

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	8	0	8	1	0	0	1	0	0	0	0	0	5	2	7	16
03:15 PM	1	3	0	4	2	2	0	4	0	0	0	0	0	1	0	1	9
03:30 PM	1	2	0	3	0	0	0	0	0	0	0	0	0	7	0	7	10
03:45 PM	0	1	1	2	1	0	0	1	0	0	0	0	0	2	0	2	5
Total	2	14	1	17	4	2	0	6	0	0	0	0	0	15	2	17	40
04:00 PM	1	4	4	9	1	1	0	2	0	0	0	0	0	0	0	0	11
04:15 PM	0	4	1	5	2	1	0	3	0	0	0	0	0	2	2	4	12
04:30 PM	1	1	0	2	0	1	0	1	0	0	0	0	0	5	1	6	9
04:45 PM	1	3	0	4	0	1	0	1	0	0	0	0	0	3	0	3	8
Total	3	12	5	20	3	4	0	7	0	0	0	0	0	10	3	13	40
05:00 PM	0	1	1	2	0	3	0	3	0	0	0	0	0	3	0	3	8
05:15 PM	0	2	2	4	1	1	0	2	0	0	0	0	0	3	0	3	9
05:30 PM	0	4	2	6	0	1	0	1	0	0	0	0	0	3	0	3	10
05:45 PM	0	7	0	7	0	1	0	1	0	0	0	0	0	2	1	3	11
Total	0	14	5	19	1	6	0	7	0	0	0	0	0	11	1	12	38
Grand Total	5	40	11	56	8	12	0	20	0	0	0	0	0	36	6	42	118
Apprch %	8.9	71.4	19.6		40	60	0		0	0	0	0	0	85.7	14.3		
Total %	4.2	33.9	9.3	47.5	6.8	10.2	0	16.9	0	0	0	0	0	30.5	5.1	35.6	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	1	1	2	0	3	0	3	0	0	0	0	0	3	0	3	8
05:15 PM	0	2	2	4	1	1	0	2	0	0	0	0	0	3	0	3	9
05:30 PM	0	4	2	6	0	1	0	1	0	0	0	0	0	3	0	3	10
05:45 PM	0	7	0	7	0	1	0	1	0	0	0	0	0	2	1	3	11
Total Volume	0	14	5	19	1	6	0	7	0	0	0	0	0	11	1	12	38
% App. Total	0	73.7	26.3		14.3	85.7	0		0	0	0	0	0	91.7	8.3		
PHF	.000	.500	.625	.679	.250	.500	.000	.583	.000	.000	.000	.000	.000	.917	.250	1.00	.864

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	1	1	2	0	<b>3</b>	0	<b>3</b>	0	0	0	0	0	<b>3</b>	0	<b>3</b>
+15 mins.	0	2	<b>2</b>	4	<b>1</b>	1	0	2	0	0	0	0	0	3	0	3
+30 mins.	0	4	2	6	0	1	0	1	0	0	0	0	0	3	0	3
+45 mins.	0	<b>7</b>	0	<b>7</b>	0	1	0	1	0	0	0	0	0	2	<b>1</b>	<b>3</b>
Total Volume	0	14	5	19	1	6	0	7	0	0	0	0	0	11	1	12
% App. Total	0	73.7	26.3		14.3	85.7	0		0	0	0		0	91.7	8.3	
PHF	.000	.500	.625	.679	.250	.500	.000	.583	.000	.000	.000	.000	.000	.917	.250	1.000

City of Los Angeles  
 N/S: Grand Avenue  
 E/W: Pico Boulevard  
 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 1

Groups Printed- Buses

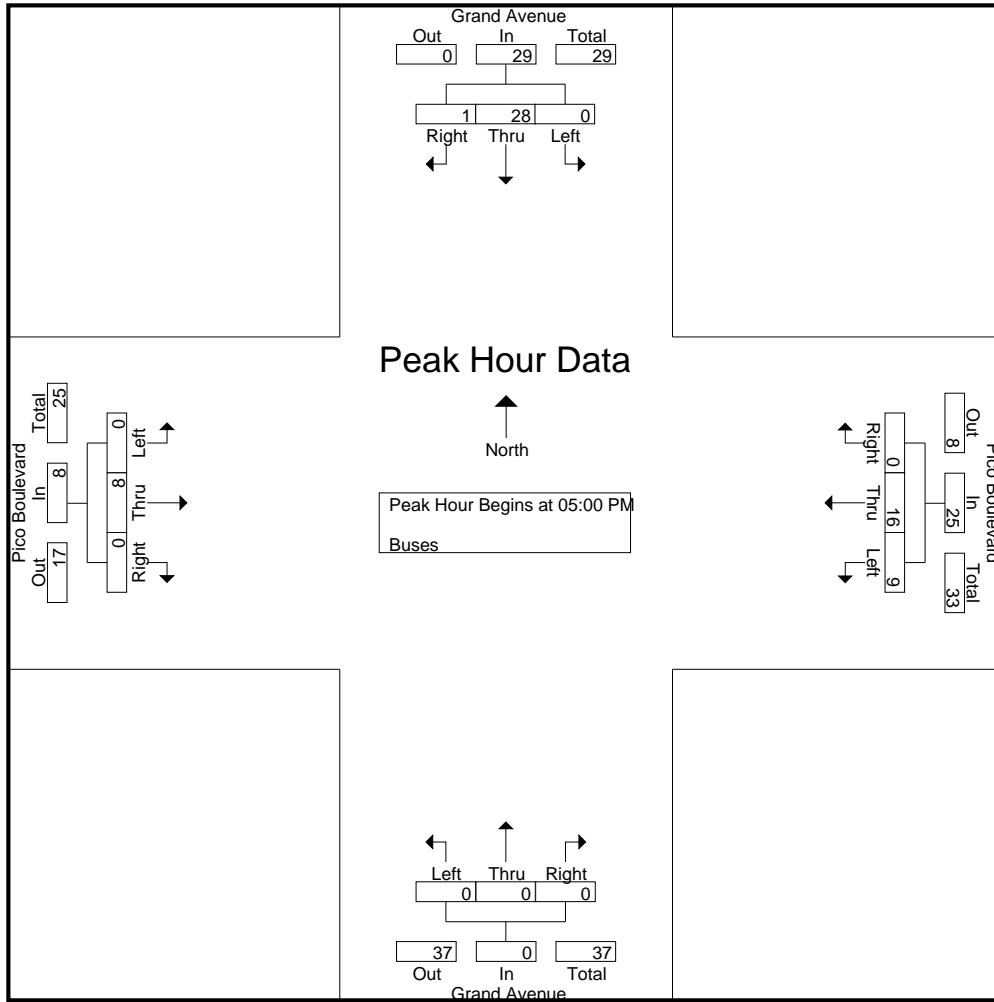
Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	0	6	1	7	3	3	0	6	0	0	0	0	0	3	0	3	16
03:15 PM	1	8	0	9	2	3	0	5	0	0	0	0	0	2	0	2	16
03:30 PM	0	3	0	3	3	4	0	7	0	0	0	0	0	2	0	2	12
03:45 PM	0	10	0	10	3	6	0	9	0	0	0	0	0	1	0	1	20
Total	1	27	1	29	11	16	0	27	0	0	0	0	0	8	0	8	64
04:00 PM	0	8	0	8	2	2	0	4	0	0	0	0	0	1	0	1	13
04:15 PM	1	7	0	8	1	4	0	5	0	0	0	0	0	1	0	1	14
04:30 PM	0	8	1	9	3	4	0	7	0	0	0	0	0	2	0	2	18
04:45 PM	0	9	1	10	1	5	0	6	0	0	0	0	0	3	0	3	19
Total	1	32	2	35	7	15	0	22	0	0	0	0	0	7	0	7	64
05:00 PM	0	6	0	6	3	4	0	7	0	0	0	0	0	1	0	1	14
05:15 PM	0	6	0	6	3	5	0	8	0	0	0	0	0	2	0	2	16
05:30 PM	0	6	0	6	0	4	0	4	0	0	0	0	0	2	0	2	12
05:45 PM	0	10	1	11	3	3	0	6	0	0	0	0	0	3	0	3	20
Total	0	28	1	29	9	16	0	25	0	0	0	0	0	8	0	8	62
Grand Total	2	87	4	93	27	47	0	74	0	0	0	0	0	23	0	23	190
Apprch %	2.2	93.5	4.3		36.5	63.5	0		0	0	0	0	0	100	0		
Total %	1.1	45.8	2.1	48.9	14.2	24.7	0	38.9	0	0	0	0	0	12.1	0	12.1	

Start Time	Grand Avenue Southbound				Pico Boulevard Westbound				Grand Avenue Northbound				Pico Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	6	0	6	3	4	0	7	0	0	0	0	0	1	0	1	14
05:15 PM	0	6	0	6	3	5	0	8	0	0	0	0	0	2	0	2	16
05:30 PM	0	6	0	6	0	4	0	4	0	0	0	0	0	2	0	2	12
05:45 PM	0	10	1	11	3	3	0	6	0	0	0	0	0	3	0	3	20
Total Volume	0	28	1	29	9	16	0	25	0	0	0	0	0	8	0	8	62
% App. Total	0	96.6	3.4		36	64	0		0	0	0	0	0	100	0		
PHF	.000	.700	.250	.659	.750	.800	.000	.781	.000	.000	.000	.000	.000	.667	.000	.667	.775



City of Los Angeles  
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 Weather: Clear

File Name : 04\_LAC\_Grand\_Pico PM  
 Site Code : 99919863  
 Start Date : 12/17/2019  
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	6	0	6	<b>3</b>	4	0	7	0	0	0	0	0	1	0	1
+15 mins.	0	6	0	6	3	<b>5</b>	0	<b>8</b>	0	0	0	0	0	2	0	2
+30 mins.	0	6	0	6	0	4	0	4	0	0	0	0	0	2	0	2
+45 mins.	0	<b>10</b>	<b>1</b>	<b>11</b>	3	3	0	6	0	0	0	0	0	<b>3</b>	0	<b>3</b>
Total Volume	0	28	1	29	9	16	0	25	0	0	0	0	0	8	0	8
% App. Total	0	96.6	3.4		36	64	0		0	0	0		0	100	0	
PHF	.000	.700	.250	.659	.750	.800	.000	.781	.000	.000	.000	.000	.000	.667	.000	.667



**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

**North/South** Grand Avenue

**East/West** Pico Boulevard

**Day:** Tuesday **Date:** December 17, 2019 **Weather:** CLEAR

**Hours:** 7-10AM 3-6PM **Staff:** CUI

**School Day:** YES **District:** Central **I/S CODE** 8766

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED BIKES</b>	0	85	65	57
<b>BIKES</b>	15	60	52	62
<b>BUSES</b>	0	210	49	135

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
<i>AM PK 15 MIN</i>	0 7.00	153 8.00	147 8.45	123 8.45
<i>PM PK 15 MIN</i>	0 3.00	419 4.00	160 5.15	173 5.45
<i>AM PK HOUR</i>	0 7.00	551 8.00	538 8.00	439 8.15
<i>PM PK HOUR</i>	0 3.00	1582 4.00	563 4.30	611 5.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	30	392	67	489
8-9	29	440	82	551
9-10	29	377	66	472
3-4	65	806	57	928
4-5	93	1381	108	1582
5-6	151	1115	217	1483
<b>TOTAL</b>	397	4511	597	5505

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
489	43	5	87	28
551	32	1	78	18
472	25	4	68	10
928	53	10	94	18
1582	60	15	106	43
1483	31	23	110	28
<b>5505</b>	<b>244</b>	<b>58</b>	<b>543</b>	<b>145</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	298	64	362
8-9	0	430	108	538
9-10	0	331	114	445
3-4	0	361	89	450
4-5	0	441	91	532
5-6	0	453	105	558
<b>TOTAL</b>	0	2314	571	2885

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	48	338	0	386
8-9	74	362	0	436
9-10	63	279	0	342
3-4	50	324	0	374
4-5	46	393	0	439
5-6	38	573	0	611
<b>TOTAL</b>	319	2269	0	2588

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
748	52	5	40	16
974	43	3	27	7
787	40	8	36	11
824	83	10	55	14
971	69	14	49	15
1169	62	14	21	7
<b>5473</b>	<b>349</b>	<b>54</b>	<b>228</b>	<b>70</b>

City of Los Angeles  
 Department of Transportation  
**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Grand Avenue				
<b>East/West:</b>	Pico Boulevard				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	Yes	<b>District:</b>	Central	<b>I/S Code:</b>	8766
<b>Hours:</b>	7-10 AM, 3-6 PM		<b>Staff:</b>	CUI	

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	1	1
9-10	0	4	0	4
3-4	0	5	1	6
4-5	0	2	0	2
5-6	0	2	0	2
<b>TOTAL</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>15</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	0	4	2	6	6
8-9	3	12	2	17	18
9-10	1	7	0	8	12
3-4	0	9	1	10	16
4-5	0	12	4	16	18
5-6	0	3	0	3	5
<b>TOTAL</b>	<b>4</b>	<b>47</b>	<b>9</b>	<b>60</b>	<b>75</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	1	12	0	13
8-9	1	11	0	12
9-10	0	9	0	9
3-4	1	3	1	5
4-5	0	5	0	5
5-6	1	6	1	8
<b>TOTAL</b>	<b>4</b>	<b>46</b>	<b>2</b>	<b>52</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	0	4	0	4	17
8-9	0	0	0	0	12
9-10	0	4	0	4	13
3-4	0	11	1	12	17
4-5	0	16	1	17	22
5-6	0	25	0	25	33
<b>TOTAL</b>	<b>0</b>	<b>60</b>	<b>2</b>	<b>62</b>	<b>114</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	2	1	1	2	6
- No helmet riders	13	37	51	51	152
- Sidewalk Riding	15	16	33	30	94
- Wrong way riding	15	1	18	7	41

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Grand Avenue				
<b>East/West:</b>	Pico Boulevard				
<b>Day:</b>	Tuesday	<b>Date:</b>	12/17/2019	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Central	<b>I/S Code:</b>	8766
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	17	6	13	11	47
7:15-7:30	24	12	16	11	63
7:30-7:45	33	22	16	12	83
7:45-8:00	41	8	11	23	83
8:00-8:15	38	8	9	12	67
8:15-8:30	23	9	9	10	51
8:30-8:45	13	7	7	11	38
8:45-9:00	22	9	9	13	53
9:00-9:15	24	9	17	10	60
9:15-9:30	16	6	5	13	40
9:30-9:45	16	6	9	16	47
9:45-10:00	22	8	16	9	55

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	115	48	56	57	276
8 - 9	96	33	34	46	209
9 - 10	78	29	47	48	202
<b>TOTAL</b>	<b>289</b>	<b>110</b>	<b>137</b>	<b>151</b>	<b>687</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	26	22	14	24	86
3:15-3:30	24	13	22	29	88
3:30-3:45	24	16	15	21	76
3:45-4:00	38	12	18	19	87
4:00-4:15	31	21	18	21	91
4:15-4:30	44	23	14	28	109
4:30-4:45	37	19	15	14	85
4:45-5:00	37	12	17	20	86
5:00-5:15	38	15	13	14	80
5:15-5:30	31	20	3	29	83
5:30-5:45	38	11	9	17	75
5:45-6:00	31	8	3	16	58

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	112	63	69	93	337
4 - 5	149	75	64	83	371
5 - 6	138	54	28	76	296
<b>TOTAL</b>	<b>399</b>	<b>192</b>	<b>161</b>	<b>252</b>	<b>1004</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
2	0	2	3	7
28	12	14	27	81

N: North, S: South, E: East, W: West, I/S: Intersection

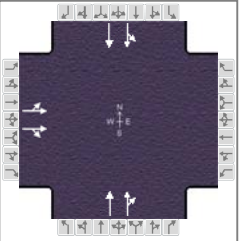
Source:

LADOT 2015 CMP

## **HCS WORKSHEETS**

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	2019	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM EXISTING.xus				
Project Description	MORRISON MU - Existing Dec 2019						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	19	34	7					217	32	56	62	

Signal Information				Signal Phases								
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	48.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

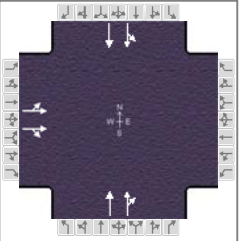
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		8.0				52.0		52.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		3.1						
Green Extension Time ( g <sub>e</sub> ), s		0.1				0.0		0.0
Phase Call Probability		0.66						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	34		31				137	134	64	64		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1844		1820				1900	1815	1087	1729		
Queue Service Time ( g <sub>s</sub> ), s	1.1		1.0				2.7	1.0	0.7	1.2		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	1.1		1.0				2.7	1.0	3.4	1.2		
Green Ratio ( g/C )	0.07		0.07				0.80	0.80	0.80	0.80		
Capacity ( c ), veh/h	122		121				1521	1453	988	1384		
Volume-to-Capacity Ratio ( X )	0.279		0.257				0.090	0.092	0.065	0.047		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	11.2		10.2				2	2	1.2	1		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	0.4		0.4				0.1	0.1	0.0	0.0		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	26.6		26.6				1.3	1.3	1.7	1.2		
Incremental Delay ( d <sub>2</sub> ), s/veh	0.5		0.4				0.1	0.1	0.1	0.1		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	27.1		27.0				1.4	1.4	1.9	1.3		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	27.1		C	0.0			1.4	A	1.6	A		
Intersection Delay, s/veh / LOS	5.1						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.5	A			0.7	A	0.6	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM EXISTING+PROJ 8-2020.xus				
Project Description	MORRISON MU - Existing + Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	19	56	14					240	56	64	69	

Signal Information				Signal Phases								
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	47.2	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

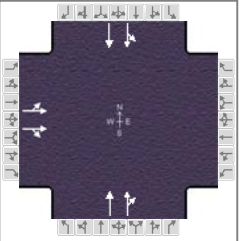
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		8.8				51.2		51.2
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		3.5						
Green Extension Time ( g <sub>e</sub> ), s		0.1				0.0		0.0
Phase Call Probability		0.80						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	51		46				164	158	70	74		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1862		1793				1900	1777	1008	1729		
Queue Service Time ( g <sub>s</sub> ), s	1.5		1.5				3.2	1.2	1.1	1.4		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	1.5		1.5				3.2	1.2	4.3	1.4		
Green Ratio ( g/C )	0.08		0.08				0.79	0.79	0.79	0.79		
Capacity ( c ), veh/h	149		144				1495	1398	912	1360		
Volume-to-Capacity Ratio ( X )	0.341		0.320				0.110	0.113	0.077	0.054		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	16.5		14.9				3.6	3.6	3.6	1.6		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	0.7		0.6				0.1	0.1	0.1	0.1		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	26.1		26.1				1.5	1.5	2.2	1.4		
Incremental Delay ( d <sub>2</sub> ), s/veh	0.5		0.5				0.1	0.2	0.2	0.1		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	26.6		26.5				1.6	1.7	2.4	1.5		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	26.6		C	0.0			1.7	A	1.9	A		
Intersection Delay, s/veh / LOS	6.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.6	A			0.8	A	0.6	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT WO PROJ.xus				
Project Description	MORRISON MU - FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	21	167	30						469	61	60	224

Signal Information				Phase Diagram										
Cycle, s	60.0	Reference Phase	2	↓	↑	↔					1	2	3	4
Offset, s	0	Reference Point	End	Green	45.9	6.1	0.0	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.1				49.9		49.9
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		5.8						
Green Extension Time ( g <sub>e</sub> ), s		0.4				0.0		0.0
Phase Call Probability		0.98						
Max Out Probability		0.00						

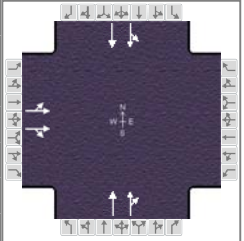
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate ( v ), veh/h	125		112					293	283	142	166	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1883		1805					1900	1823	1147	1729	
Queue Service Time ( g <sub>s</sub> ), s	3.8		3.6					6.2	2.6	0.5	3.5	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	3.8		3.6					6.2	2.6	6.7	3.5	
Green Ratio ( g/C )	0.10		0.10					0.76	0.76	0.76	0.76	
Capacity ( c ), veh/h	191		184					1453	1395	965	1323	
Volume-to-Capacity Ratio ( X )	0.654		0.609					0.202	0.203	0.147	0.126	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	41.6		36.9					10.3	10.1	5.3	5.6	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.7		1.5					0.4	0.4	0.2	0.2	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	25.9		25.8					2.0	2.0	1.9	1.8	
Incremental Delay ( d <sub>2</sub> ), s/veh	1.4		1.2					0.3	0.3	0.3	0.2	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh	27.3		27.0					2.3	2.3	2.3	2.0	
Level of Service ( LOS )	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	27.2		C	0.0			2.3		A	2.1		A
Intersection Delay, s/veh / LOS	7.5						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.7	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT WITH PROJ 8-2020.xus				
Project Description	MORRISON MU - FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	21	189	37					492	85	68	231	

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	45.3	6.7	0.0	0.0	0.0	0.0				
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
		Red	0.0	0.0	0.0	0.0	0.0	0.0				

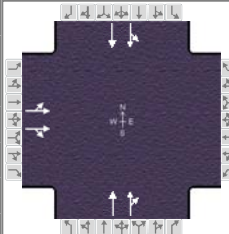
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.7				49.3		49.3
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		6.3						
Green Extension Time ( g <sub>e</sub> ), s		0.4				0.0		0.0
Phase Call Probability		0.99						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	142		126				321	306	145	180		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1885		1797				1900	1802	1037	1729		
Queue Service Time ( g <sub>s</sub> ), s	4.3		4.0				6.9	3.0	0.7	3.7		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.3		4.0				6.9	3.0	7.6	3.7		
Green Ratio ( g/C )	0.11		0.11				0.75	0.75	0.75	0.75		
Capacity ( c ), veh/h	211		201				1434	1360	873	1305		
Volume-to-Capacity Ratio ( X )	0.674		0.629				0.224	0.225	0.166	0.138		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	47		41.4				13.2	12.8	6.3	7		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.9		1.7				0.5	0.5	0.3	0.3		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	25.6		25.5				2.2	2.2	2.2	2.0		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.4		1.2				0.4	0.4	0.4	0.2		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	27.0		26.7				2.5	2.6	2.6	2.2		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	26.8		C	0.0			2.5	A	2.4	A		
Intersection Delay, s/veh / LOS	7.8						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.8	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM EXISTING.xus				
Project Description	MORRISON MU - EXISTING DEC 2019						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	73	165	9					172	75	88	274	

Signal Information				Phase Diagram										
Cycle, s	60.0	Reference Phase	2	↓	↑	↔					1	2	3	4
Offset, s	0	Reference Point	End	Green	45.3	6.7	0.0	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0				

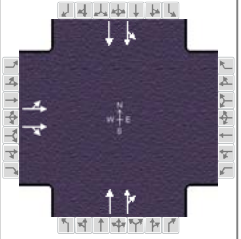
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.7				49.3		49.3
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		6.4						
Green Extension Time ( g <sub>e</sub> ), s		0.4				0.0		0.0
Phase Call Probability		0.99						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	140		128				138	131	190	203		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1848		1874				1900	1708	1414	1729		
Queue Service Time ( g <sub>s</sub> ), s	4.4		3.9				2.7	1.2	0.1	4.3		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.4		3.9				2.7	1.2	2.8	4.3		
Green Ratio ( g/C )	0.11		0.11				0.75	0.75	0.75	0.75		
Capacity ( c ), veh/h	207		210				1434	1289	1157	1305		
Volume-to-Capacity Ratio ( X )	0.676		0.611				0.096	0.101	0.165	0.156		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	46.3		41.8				5	4.9	7.8	7.9		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.9		1.7				0.2	0.2	0.3	0.3		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	25.6		25.4				1.9	2.0	2.0	2.0		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.4		1.1				0.1	0.2	0.3	0.3		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	27.0		26.5				2.1	2.1	2.3	2.3		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	26.8		C	0.0			2.1	A	2.3	A		
Intersection Delay, s/veh / LOS	9.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			0.7	A	0.8	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM EXISTING+PROJ 8-2020.xus				
Project Description	MORRISON MU - EXISTING + PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	73	206	23					208	125	104	287	

Signal Information				Signal Phases										
Cycle, s	60.0	Reference Phase	2	↓	↑	↔					1	2	3	4
Offset, s	0	Reference Point	End	Green	44.2	7.8	0.0	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8

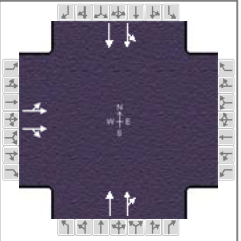
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		11.8				48.2		48.2
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		7.3						
Green Extension Time ( g <sub>e</sub> ), s		0.5				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate ( v ), veh/h	172		156					188	174	197	228	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1857		1847					1900	1665	1243	1729	
Queue Service Time ( g <sub>s</sub> ), s	5.3		4.8					3.7	1.8	0.9	4.8	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	5.3		4.8					3.7	1.8	4.6	4.8	
Green Ratio ( g/C )	0.13		0.13					0.74	0.74	0.74	0.74	
Capacity ( c ), veh/h	243		241					1398	1226	1009	1273	
Volume-to-Capacity Ratio ( X )	0.709		0.647					0.135	0.142	0.196	0.179	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	56.3		50.3					8.7	8.3	10.2	11.3	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	2.3		2.0					0.3	0.3	0.4	0.5	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	25.0		24.8					2.3	2.3	2.5	2.4	
Incremental Delay ( d <sub>2</sub> ), s/veh	1.4		1.1					0.2	0.2	0.4	0.3	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh	26.4		25.9					2.5	2.6	2.9	2.7	
Level of Service ( LOS )	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	26.2		C	0.0			2.5		A	2.8		A
Intersection Delay, s/veh / LOS	9.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.8	A			0.8	A	0.8	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE WO PROJ.xus				
Project Description	MORRISON MU - FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	82	369	41					484	99	94	532	

Signal Information				Signal Timing (s)								Signal Phases						
Cycle, s	60.0	Reference Phase	2	Green	40.5	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On															

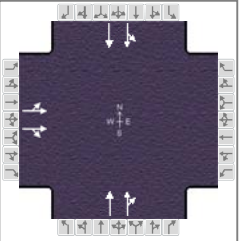
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		15.5				44.5		44.5
Change Period, (Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway (MAH), s		3.1				0.0		0.0
Queue Clearance Time (g <sub>s</sub> ), s		10.6						
Green Extension Time (g <sub>e</sub> ), s		0.9				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (v), veh/h	282		253					325	308	308	372	
Adjusted Saturation Flow Rate (s), veh/h/ln	1870		1842					1900	1788	1274	1729	
Queue Service Time (g <sub>s</sub> ), s	8.6		7.7					7.0	4.1	0.9	8.7	
Cycle Queue Clearance Time (g <sub>c</sub> ), s	8.6		7.7					7.0	4.1	7.9	8.7	
Green Ratio (g/C)	0.19		0.19					0.67	0.67	0.67	0.67	
Capacity (c), veh/h	359		353					1282	1207	939	1167	
Volume-to-Capacity Ratio (X)	0.785		0.717					0.254	0.256	0.328	0.319	
Back of Queue (Q), ft/ln (50th percentile)	89.5		78.5					27.1	25.9	27.5	33.5	
Back of Queue (Q), veh/ln (50th percentile)	3.6		3.1					1.1	1.0	1.1	1.3	
Queue Storage Ratio (RQ) (50th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay (d <sub>1</sub> ), s/veh	23.1		22.7					3.8	3.8	3.9	4.0	
Incremental Delay (d <sub>2</sub> ), s/veh	1.5		1.0					0.5	0.5	0.9	0.7	
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	24.5		23.7					4.3	4.3	4.8	4.8	
Level of Service (LOS)	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	24.2		C	0.0			4.3		A	4.8		A
Intersection Delay, s/veh / LOS	10.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	0.9	A			1.0	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	Hope Street	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE WITH PROJ 8-202...				
Project Description	MORRISON MU - FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	82	410	55					520	149	110	545	

Signal Information				Signal Phases											
Cycle, s	60.0	Reference Phase	2	↓	↑	→	←	1	2	3	4	5	6	7	8
Offset, s	0	Reference Point	End	Green	39.4	12.6	0.0	0.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0					

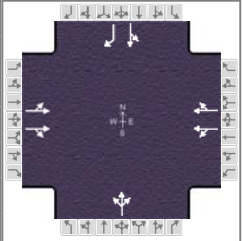
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		16.6				43.4		43.4
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		11.6						
Green Extension Time ( g <sub>e</sub> ), s		1.0				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	314		280				377	350	306	406		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1873		1830				1900	1754	1079	1729		
Queue Service Time ( g <sub>s</sub> ), s	9.6		8.6				8.3	5.1	3.3	9.4		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	9.6		8.6				8.3	5.1	11.7	9.4		
Green Ratio ( g/C )	0.21		0.21				0.66	0.66	0.66	0.66		
Capacity ( c ), veh/h	393		384				1248	1152	792	1136		
Volume-to-Capacity Ratio ( X )	0.800		0.731				0.302	0.304	0.386	0.357		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	99.1		86				36.1	33.9	31.6	41.3		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	4.0		3.4				1.4	1.4	1.3	1.7		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	22.5		22.1				4.4	4.4	5.0	4.6		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.0				0.6	0.7	1.4	0.9		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	24.0		23.1				5.0	5.1	6.5	5.5		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	23.6		C	0.0			5.1	A	5.9	A		
Intersection Delay, s/veh / LOS	10.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	1.0	A			1.1	A	1.1	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM EXISTING.xus				
Project Description	MORRISON MU EXISTING						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	92	480	23	20	356	65	40	102	44	8	28	35

Signal Information												
Cycle, s	90.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	68.7	13.3	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

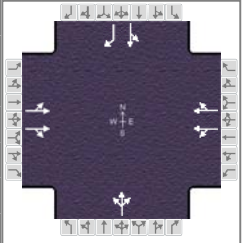
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		72.7		72.7		17.3		17.3
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.3		3.3
Queue Clearance Time ( g <sub>s</sub> ), s						12.9		4.0
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.4		0.5
Phase Call Probability						1.00		1.00
Max Out Probability						0.02		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	310		337	257		223		202			39	38
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1459		1646	1778		1543		1616			1744	1468
Queue Service Time ( g <sub>s</sub> ), s	0.0		5.3	0.0		3.4		7.5			0.0	2.0
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.2		5.3	3.3		3.4		10.9			1.6	2.0
Green Ratio ( g/C )	0.76		0.76	0.76		0.76		0.15			0.15	0.15
Capacity ( c ), veh/h	1167		1257	1401		1178		287			306	217
Volume-to-Capacity Ratio ( X )	0.266		0.268	0.183		0.189		0.704			0.128	0.176
Back of Queue ( Q ), ft/ln ( 50 th percentile)	30.4		33.8	23.5		21		107.4			18.3	18
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.2		1.4	0.9		0.8		4.3			0.7	0.7
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	3.0		3.1	2.9		2.9		37.3			33.4	33.6
Incremental Delay ( d <sub>2</sub> ), s/veh	0.6		0.5	0.3		0.4		1.2			0.1	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	3.6		3.7	3.2		3.3		38.4			33.5	33.7
Level of Service ( LOS )	A		A	A		A		D			C	C
Approach Delay, s/veh / LOS	3.6		A	3.2		A		38.4		D	33.6	C
Intersection Delay, s/veh / LOS	10.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.0	A	0.9	A	0.8	A	0.6	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM EXISTING+PROJECT 8-202...				
Project Description	MORRISON MU EXISTING + PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	115	480	23	28	386	179	40	164	44	23	28	35

Signal Information				Phase Diagram								
Cycle, s	90.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	65.9	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

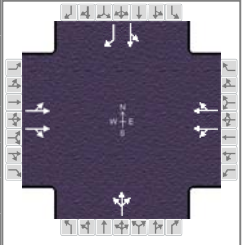
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		69.9		69.9		20.1		20.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.3		3.3
Queue Clearance Time ( g <sub>s</sub> ), s						15.9		4.2
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.2		0.7
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	298		374	356		289		270			55	38
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1193		1648	1778		1435		1698			1223	1489
Queue Service Time ( g <sub>s</sub> ), s	3.9		6.8	0.0		5.7		9.4			0.0	1.9
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	9.7		6.8	5.6		5.7		13.9			2.2	1.9
Green Ratio ( g/C )	0.73		0.73	0.73		0.73		0.18			0.18	0.18
Capacity ( c ), veh/h	931		1207	1346		1051		350			277	266
Volume-to-Capacity Ratio ( X )	0.320		0.310	0.264		0.275		0.770			0.200	0.143
Back of Queue ( Q ), ft/ln ( 50 th percentile)	37.5		48.4	43.5		36.6		157			25.1	17.2
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.5		1.9	1.7		1.5		6.3			1.0	0.7
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	4.4		4.1	4.0		4.0		36.0			31.3	31.1
Incremental Delay ( d <sub>2</sub> ), s/veh	0.9		0.7	0.5		0.6		7.2			0.1	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	5.3		4.8	4.4		4.6		43.2			31.4	31.2
Level of Service ( LOS )	A		A	A		A		D			C	C
Approach Delay, s/veh / LOS	5.0		A	4.5		A		43.2		D	31.3	C
Intersection Delay, s/veh / LOS	12.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.0	A	1.0	A	0.9	A	0.6	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE WO PROJECT.xus				
Project Description	MORRISON MU FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	106	698	30	27	533	78	42	377	46	14	217	36

Signal Information																		
Cycle, s	100.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On	Green	61.9	30.1	0.0	0.0	0.0	0.0	1		2		3		4	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5		6		7		8	
				Red	0.0	0.0	0.0	0.0	0.0	0.0								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		65.9		65.9		34.1		34.1
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		3.1		3.1
Queue Clearance Time ( $g_s$ ), s						29.8		12.6
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.3		1.6
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.00

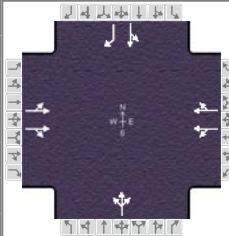
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( $v$ ), veh/h	421			485			367			326		
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1316			1648			1747			1560		
Queue Service Time ( $g_s$ ), s	10.6			15.2			0.0			9.5		
Cycle Queue Clearance Time ( $g_c$ ), s	20.1			15.2			9.1			9.5		
Green Ratio ( $g/C$ )	0.62			0.62			0.62			0.62		
Capacity ( $c$ ), veh/h	861			1020			1121			966		
Volume-to-Capacity Ratio ( $X$ )	0.489			0.476			0.328			0.338		
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	134.4			138			91			82.5		
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	5.4			5.5			3.6			3.3		
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay ( $d_1$ ), s/veh	10.9			10.1			9.0			9.1		
Incremental Delay ( $d_2$ ), s/veh	2.0			1.6			0.8			0.9		
Initial Queue Delay ( $d_3$ ), s/veh	0.0			0.0			0.0			0.0		
Control Delay ( $d$ ), s/veh	12.9			11.7			9.8			10.0		
Level of Service (LOS)	B			B			A			B		
Approach Delay, s/veh / LOS	12.3			B			9.9			A		
Intersection Delay, s/veh / LOS				21.0						C		

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.1	A	1.3	A	1.0	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE With PROJECT 8-...				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	129	698	30	35	563	192	42	439	46	29	217	36

Signal Information														
Cycle, s	100.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	57.9	34.1	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
				Red	0.0	0.0	0.0	0.0	0.0	0.0				

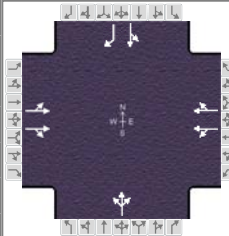
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		61.9		61.9		38.1		38.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.2		3.2
Queue Clearance Time ( g <sub>s</sub> ), s						32.9		12.8
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		1.1		1.9
Phase Call Probability						1.00		1.00
Max Out Probability						0.50		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	399			533			467			392		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	988			1650			1748			1472		
Queue Service Time ( g <sub>s</sub> ), s	20.6			19.1			0.0			14.4		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	35.0			19.1			13.7			14.4		
Green Ratio ( g/C )	0.58			0.58			0.58			0.58		
Capacity ( c ), veh/h	621			956			1051			853		
Volume-to-Capacity Ratio ( X )	0.642			0.558			0.444			0.460		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	187.8			181.8			142.5			123.3		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	7.5			7.3			5.7			4.9		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	17.8			12.9			11.7			11.9		
Incremental Delay ( d <sub>2</sub> ), s/veh	5.0			2.3			1.4			1.8		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0			0.0			0.0			0.0		
Control Delay ( d ), s/veh	22.9			15.2			13.1			13.7		
Level of Service ( LOS )	C			B			B			B		
Approach Delay, s/veh / LOS	18.5			B			13.3			B		
Intersection Delay, s/veh / LOS				22.8						C		

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.2	A	1.4	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM EXISTING.xus				
Project Description	MORRISON MU EXISTING DEC 2019						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	81	482	28	30	706	53	34	107	51	27	125	128

Signal Information				Signal Phases							
Cycle, s	60.0	Reference Phase	2	1	2	3	4	5	6	7	8
Offset, s	0	Reference Point	End	Green	42.1	9.9	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0

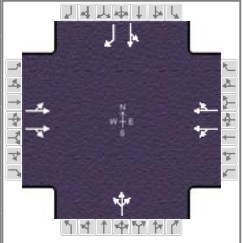
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		46.1		46.1		13.9		13.9
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		3.4		3.4
Queue Clearance Time ( $g_s$ ), s						9.2		7.7
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.8		0.9
Phase Call Probability						1.00		1.00
Max Out Probability						0.16		0.07

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( $v$ ), veh/h	294		349	466		391		209			165	139
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1278		1635	1826		1538		1639			1770	1369
Queue Service Time ( $g_s$ ), s	0.3		4.6	0.0		5.5		2.3			0.0	5.7
Cycle Queue Clearance Time ( $g_c$ ), s	5.7		4.6	5.8		5.5		7.2			4.9	5.7
Green Ratio ( $g/C$ )	0.70		0.70	0.70		0.70		0.17			0.17	0.17
Capacity ( $c$ ), veh/h	974		1146	1344		1078		342			364	227
Volume-to-Capacity Ratio ( $X$ )	0.301		0.304	0.347		0.363		0.610			0.454	0.614
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	21.7		26.1	35.8		31		65.8			49.7	43.4
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	0.9		1.0	1.4		1.2		2.6			2.0	1.7
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( $d_1$ ), s/veh	3.2		3.4	3.6		3.5		23.8			22.9	23.2
Incremental Delay ( $d_2$ ), s/veh	0.8		0.7	0.7		0.9		0.7			0.3	1.0
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( $d$ ), s/veh	4.0		4.1	4.3		4.4		24.5			23.2	24.3
Level of Service (LOS)	A		A	A		A		C			C	C
Approach Delay, s/veh / LOS	4.0		A	4.3		A		24.5		C	23.7	C
Intersection Delay, s/veh / LOS	9.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.0	A	1.2	A	0.8	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM EXISTING+PROJECT 8-202...				
Project Description	MORRISON MU EXISTING+PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	123	482	28	45	750	239	34	220	51	53	125	128

Signal Information														
Cycle, s	90.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	62.5	19.5	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
				Red	0.0	0.0	0.0	0.0	0.0	0.0				

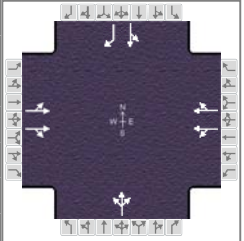
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		66.5		66.5		23.5		23.5
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.3		3.3
Queue Clearance Time ( g <sub>s</sub> ), s						18.4		12.8
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		1.1		1.3
Phase Call Probability						1.00		1.00
Max Out Probability						0.15		0.01

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	242		446	628		496		332			193	139
Adjusted Saturation Flow Rate ( s ), veh/h/ln	669		1642	1791		1419		1746			1387	1421
Queue Service Time ( g <sub>s</sub> ), s	12.4		9.8	0.0		13.0		5.6			0.0	7.7
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	25.5		9.8	13.6		13.0		16.4			10.8	7.7
Green Ratio ( g/C )	0.69		0.69	0.69		0.69		0.22			0.22	0.22
Capacity ( c ), veh/h	527		1140	1287		985		423			352	308
Volume-to-Capacity Ratio ( X )	0.458		0.391	0.488		0.504		0.785			0.549	0.452
Back of Queue ( Q ), ft/ln ( 50 th percentile)	72.2		76.2	117.7		95.3		180.5			92.6	64.4
Back of Queue ( Q ), veh/ln ( 50 th percentile)	2.9		3.0	4.7		3.8		7.2			3.7	2.6
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	9.3		5.7	6.3		6.2		33.9			31.3	30.6
Incremental Delay ( d <sub>2</sub> ), s/veh	2.9		1.0	1.3		1.8		4.1			0.5	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	12.2		6.7	7.6		8.0		38.1			31.8	31.0
Level of Service ( LOS )	B		A	A		A		D			C	C
Approach Delay, s/veh / LOS	8.6		A	7.8		A		38.1		D	31.5	C
Intersection Delay, s/veh / LOS	15.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.1	A	1.4	A	1.0	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jul 23, 2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITHOUT PROJE...				
Project Description	MORRISON MU FUTURE WITHOUT PROJECT						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h	103	701	47	46	923	77	35	362	53	36	325	133

Signal Information												
Cycle, s	100.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	62.0	30.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

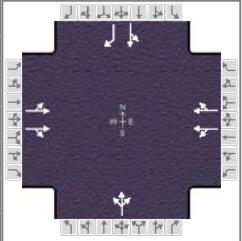
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		66.0		66.0		34.0		34.0
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		3.2		3.2
Queue Clearance Time ( $g_s$ ), s						32.0		32.0
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( $v$ ), veh/h	386		539	603		534		489			392	145
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	918		1632	1727		1534		1613			1548	1468
Queue Service Time ( $g_s$ ), s	17.7		17.8	0.0		17.9		0.0			0.0	7.6
Cycle Queue Clearance Time ( $g_c$ ), s	35.5		17.8	17.7		17.9		30.0			22.7	7.6
Green Ratio ( $g/C$ )	0.62		0.62	0.62		0.62		0.30			0.30	0.30
Capacity ( $c$ ), veh/h	616		1012	1109		951		523			504	440
Volume-to-Capacity Ratio ( $X$ )	0.626		0.533	0.544		0.561		0.936			0.778	0.328
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	170.6		161.3	179		161.8		373			234.7	66
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	6.8		6.5	7.2		6.5		14.9			9.4	2.6
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( $d_1$ ), s/veh	14.7		10.6	10.6		10.6		34.5			31.6	27.2
Incremental Delay ( $d_2$ ), s/veh	4.8		2.0	1.9		2.4		24.2			7.0	0.2
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( $d$ ), s/veh	19.5		12.6	12.5		13.0		58.6			38.6	27.3
Level of Service (LOS)	B		B	B		B		E			D	C
Approach Delay, s/veh / LOS	15.5		B	12.7		B		58.6		E	35.5	D
Intersection Delay, s/veh / LOS	24.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A	1.3	A	1.4	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITH PROJECT 8...				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	145	701	47	61	967	263	35	475	53	62	325	133

Signal Information													
Cycle, s	100.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	57.0	35.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

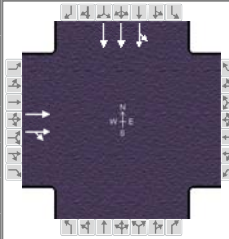
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		61.0		61.0		39.0		39.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.2		3.2
Queue Clearance Time ( g <sub>s</sub> ), s						37.0		37.0
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	308		663	742		661		612			421	145
Adjusted Saturation Flow Rate ( s ), veh/h/ln	365		1638	1265		1442		1677			1186	1485
Queue Service Time ( g <sub>s</sub> ), s	25.7		27.5	29.5		31.3		0.0			0.0	7.0
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	57.0		27.5	57.0		31.3		35.0			35.0	7.0
Green Ratio ( g/C )	0.57		0.57	0.57		0.57		0.35			0.35	0.35
Capacity ( c ), veh/h	263		934	760		822		625			457	520
Volume-to-Capacity Ratio ( X )	1.171		0.710	0.976		0.804		0.979			0.921	0.278
Back of Queue ( Q ), ft/ln ( 50 th percentile)	362.5		269.4	566.8		298.8		491			313.4	60.2
Back of Queue ( Q ), veh/ln ( 50 th percentile)	14.5		10.8	22.7		12.0		19.6			12.5	2.4
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	33.9		15.2	24.1		16.0		32.6			30.7	23.4
Incremental Delay ( d <sub>2</sub> ), s/veh	110.0		4.6	27.4		8.2		30.5			23.6	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	143.9		19.7	51.5		24.2		63.1			54.3	23.5
Level of Service ( LOS )	F		B	D		C		E			D	C
Approach Delay, s/veh / LOS	59.1		E	38.6		D		63.1		E	46.4	D
Intersection Delay, s/veh / LOS	49.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.6	A	1.5	A	1.4	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	12TH STREET	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM EXISTING.xus				
Project Description	MORRISON MU EXISTING DEC 2019						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		77	65							137	463	

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	42.0	10.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

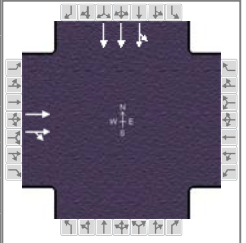
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		46.0						14.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								9.1
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.9
Phase Call Probability								1.00
Max Out Probability								0.20

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		80	75							228	424	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1543							1840	1900	
Queue Service Time ( g <sub>s</sub> ), s		1.0	0.9							7.1	6.3	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		1.0	0.9							7.1	6.3	
Green Ratio ( g/C )		0.70	0.70							0.17	0.17	
Capacity ( c ), veh/h		1331	1081							306	631	
Volume-to-Capacity Ratio ( X )		0.060	0.069							0.746	0.672	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		4.7	4.6							73.2	65.4	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.2	0.2							2.9	2.6	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		2.8	2.8							23.8	23.5	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.1	0.1							1.4	0.5	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		2.9	2.9							25.2	24.0	
Level of Service ( LOS )		A	A							C	C	
Approach Delay, s/veh / LOS	2.9	A		0.0			0.0			24.4	C	
Intersection Delay, s/veh / LOS	20.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.6	A					0.8	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	DEC 2019	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM EXISTING+PROJECT 8-2...		
Project Description	MORRISON MU EXISTING + PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		94	93							137	471	

Signal Information				Signal Phases									
Cycle, s	65.0	Reference Phase	2	↔	↓					↘	↙		
Offset, s	0	Reference Point	End	Green	46.0	11.0	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0			

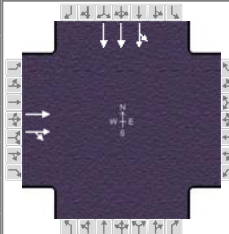
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		50.0						15.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								9.7
Green Extension Time ( g <sub>e</sub> ), s		0.0						1.3
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		102	101							231	430	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1528							1841	1900	
Queue Service Time ( g <sub>s</sub> ), s		1.8	1.3							7.7	6.9	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		1.8	1.3							7.7	6.9	
Green Ratio ( g/C )		0.71	0.71							0.17	0.17	
Capacity ( c ), veh/h		1343	1081							313	645	
Volume-to-Capacity Ratio ( X )		0.076	0.094							0.739	0.666	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		6.9	7.2							81.2	72.9	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.3	0.3							3.2	2.9	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		2.9	3.0							25.6	25.3	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.1	0.2							1.3	0.4	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		3.1	3.2							26.9	25.7	
Level of Service ( LOS )		A	A							C	C	
Approach Delay, s/veh / LOS	3.1	A		0.0			0.0			26.1	C	
Intersection Delay, s/veh / LOS	20.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.7	A					0.9	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	12TH STREET	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WO PROJECT.xus				
Project Description	MORRISON MU FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		222	68							143	707	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	43.0	14.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		47.0						18.0
Change Period, ( $Y+R_c$ ), s		4.0						4.0
Max Allow Headway ( $MAH$ ), s		0.0						3.0
Queue Clearance Time ( $g_s$ ), s								12.8
Green Extension Time ( $g_e$ ), s		0.0						1.2
Phase Call Probability								1.00
Max Out Probability								0.40

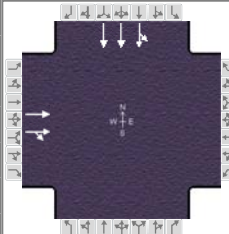
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( $v$ ), veh/h		163	152							323	601	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1900	1694							1855	1900	
Queue Service Time ( $g_s$ ), s		2.4	2.2							10.8	9.6	
Cycle Queue Clearance Time ( $g_c$ ), s		2.4	2.2							10.8	9.6	
Green Ratio ( $g/C$ )		0.66	0.66							0.22	0.22	
Capacity ( $c$ ), veh/h		1257	1121							400	818	
Volume-to-Capacity Ratio ( $X$ )		0.129	0.136							0.809	0.734	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		15.2	14.5							124.2	102.2	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		0.6	0.6							5.0	4.1	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( $d_1$ ), s/veh		4.1	4.1							24.2	23.8	
Incremental Delay ( $d_2$ ), s/veh		0.2	0.3							5.7	1.3	
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( $d$ ), s/veh		4.3	4.3							29.9	25.0	
Level of Service (LOS)		A	A							C	C	
Approach Delay, s/veh / LOS	4.3	A		0.0			0.0			26.7	C	
Intersection Delay, s/veh / LOS	21.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.7	A					1.0	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2023	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		239	96							143	715	

Signal Information													
Cycle, s	65.0	Reference Phase	2	↔	↓					↘	↙		
Offset, s	0	Reference Point	End	Green	43.0	14.0	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0			

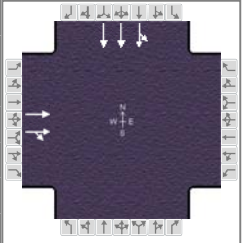
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		47.0						18.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								12.9
Green Extension Time ( g <sub>e</sub> ), s		0.0						1.1
Phase Call Probability								1.00
Max Out Probability								0.64

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		190	174							326	606	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1653							1856	1900	
Queue Service Time ( g <sub>s</sub> ), s		2.7	2.6							10.9	9.7	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		2.7	2.6							10.9	9.7	
Green Ratio ( g/C )		0.66	0.66							0.21	0.21	
Capacity ( c ), veh/h		1258	1095							398	816	
Volume-to-Capacity Ratio ( X )		0.151	0.159							0.819	0.743	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		18.1	16.9							130.3	104.8	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.7	0.7							5.2	4.2	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		4.1	4.1							24.3	23.8	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.3	0.3							7.4	1.8	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		4.4	4.5							31.8	25.6	
Level of Service ( LOS )		A	A							C	C	
Approach Delay, s/veh / LOS	4.4	A		0.0			0.0			27.8	C	
Intersection Delay, s/veh / LOS	21.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	12TH STREET	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM EXISTING.xus				
Project Description	MORRISON MU DEC 2019 EXISTING						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		191	84							140	1525	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	32.5	24.5	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

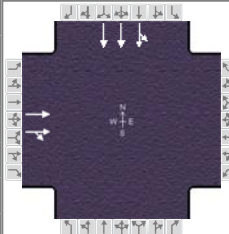
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		36.5						28.5
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								22.8
Green Extension Time ( g <sub>e</sub> ), s		0.0						1.8
Phase Call Probability								1.00
Max Out Probability								0.97

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		156	143							637	1173	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1622							1878	1900	
Queue Service Time ( g <sub>s</sub> ), s		3.0	3.1							20.8	18.1	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		3.0	3.1							20.8	18.1	
Green Ratio ( g/C )		0.50	0.50							0.38	0.38	
Capacity ( c ), veh/h		949	810							709	1435	
Volume-to-Capacity Ratio ( X )		0.164	0.177							0.899	0.817	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		27.7	25.9							258.5	187.8	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.1	1.0							10.3	7.5	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		8.9	8.9							19.1	18.2	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.4	0.5							12.7	3.1	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		9.2	9.4							31.8	21.3	
Level of Service ( LOS )		A	A							C	C	
Approach Delay, s/veh / LOS	9.3	A		0.0			0.0			25.0	C	
Intersection Delay, s/veh / LOS	22.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.7	A					1.5	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	DEC 2019	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM EXISTING+PROJECT 8-2...		
Project Description	MORRISON MU EXISTING + PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		218	127							140	1542	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	32.7	24.3	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

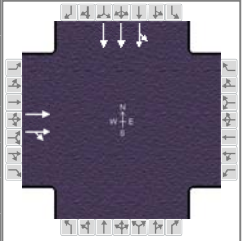
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		36.7						28.3
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								23.2
Green Extension Time ( g <sub>e</sub> ), s		0.0						1.1
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		199	176							644	1185	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1570							1878	1900	
Queue Service Time ( g <sub>s</sub> ), s		3.7	4.1							21.2	18.4	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		3.7	4.1							21.2	18.4	
Green Ratio ( g/C )		0.50	0.50							0.37	0.37	
Capacity ( c ), veh/h		956	790							702	1421	
Volume-to-Capacity Ratio ( X )		0.208	0.223							0.917	0.834	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		35.9	32.7							277.7	195.4	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.4	1.3							11.1	7.8	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		9.0	9.0							19.4	18.5	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.5	0.7							15.9	3.9	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		9.5	9.7							35.3	22.4	
Level of Service ( LOS )		A	A							D	C	
Approach Delay, s/veh / LOS	9.6	A		0.0			0.0			27.0	C	
Intersection Delay, s/veh / LOS	24.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.5	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2023	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		383	87							146	1884	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	29.0	28.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

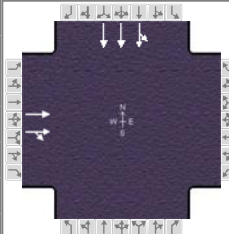
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								28.1
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.0
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		266	245							779	1428	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1716							1881	1900	
Queue Service Time ( g <sub>s</sub> ), s		5.8	6.0							26.1	22.3	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		5.8	6.0							26.1	22.3	
Green Ratio ( g/C )		0.45	0.45							0.43	0.43	
Capacity ( c ), veh/h		848	766							810	1637	
Volume-to-Capacity Ratio ( X )		0.313	0.320							0.961	0.872	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		58.8	55.1							363.8	234.7	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		2.4	2.2							14.6	9.4	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		11.6	11.6							18.0	16.9	
Incremental Delay ( d <sub>2</sub> ), s/veh		1.0	1.1							22.4	5.3	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		12.6	12.7							40.3	22.1	
Level of Service ( LOS )		B	B							D	C	
Approach Delay, s/veh / LOS	12.6	B		0.0			0.0			28.6	C	
Intersection Delay, s/veh / LOS	25.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.9	A					1.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2023	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		410	130							146	1901	

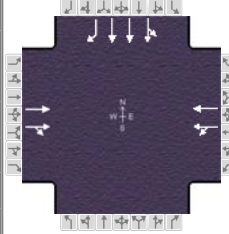
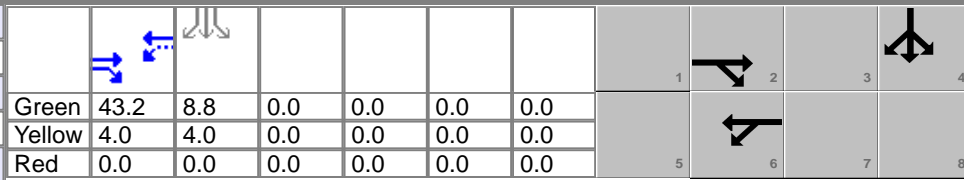
Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	29.0	28.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( $Y+R_c$ ), s		4.0						4.0
Max Allow Headway ( $MAH$ ), s		0.0						3.0
Queue Clearance Time ( $g_s$ ), s								28.5
Green Extension Time ( $g_e$ ), s		0.0						0.0
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( $v$ ), veh/h		310	277							785	1440	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1900	1664							1881	1900	
Queue Service Time ( $g_s$ ), s		6.8	7.2							26.5	22.6	
Cycle Queue Clearance Time ( $g_c$ ), s		6.8	7.2							26.5	22.6	
Green Ratio ( $g/C$ )		0.45	0.45							0.43	0.43	
Capacity ( $c$ ), veh/h		848	742							810	1637	
Volume-to-Capacity Ratio ( $X$ )		0.366	0.373							0.969	0.880	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		70.9	64.5							376.5	239.6	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		2.8	2.6							15.1	9.6	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( $d_1$ ), s/veh		11.9	12.0							18.1	17.0	
Incremental Delay ( $d_2$ ), s/veh		1.2	1.4							24.1	5.7	
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( $d$ ), s/veh		13.1	13.4							42.2	22.6	
Level of Service (LOS)		B	B							D	C	
Approach Delay, s/veh / LOS	13.3	B		0.0			0.0			29.5	C	
Intersection Delay, s/veh / LOS		26.1						C				

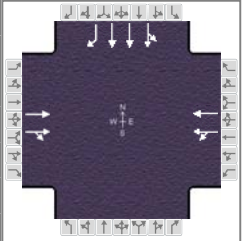
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	1.0	A					1.7	A

## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency	OVERLAND TRAFFIC				Duration, h	0.25										
Analyst	LF	Analysis Date	1/22/2020		Area Type	Other										
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR		PHF	0.92										
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019		Analysis Period	1 > 7:00										
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM EXISTING.xus													
Project Description	MORRISON MU EXISTING DEC 2019															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h						430	108	74	362					29	440	82
Signal Information																
Cycle, s	60.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
Green	43.2	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase						2		6				4				
Case Number						8.0		8.0				11.0				
Phase Duration, s						47.2		47.2				12.8				
Change Period, ( Y+R <sub>c</sub> ), s						4.0		4.0				4.0				
Max Allow Headway ( MAH ), s						0.0		0.0				3.1				
Queue Clearance Time ( g <sub>s</sub> ), s												7.6				
Green Extension Time ( g <sub>e</sub> ), s						0.0		0.0				1.3				
Phase Call Probability												1.00				
Max Out Probability												0.00				
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement						2	12	1	6				7	4	14	
Adjusted Flow Rate ( v ), veh/h						308	277	227	247				177	333	89	
Adjusted Saturation Flow Rate ( s ), veh/h/ln						1900	1685	1276	1611				1802	1900	1210	
Queue Service Time ( g <sub>s</sub> ), s						6.5	3.3	0.6	6.1				5.6	4.9	4.1	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s						6.5	3.3	7.1	6.1				5.6	4.9	4.1	
Green Ratio ( g/C )						0.72	0.72	0.72	0.72				0.15	0.15	0.15	
Capacity ( c ), veh/h						1367	1212	1000	1160				265	559	178	
Volume-to-Capacity Ratio ( X )						0.225	0.228	0.227	0.213				0.667	0.596	0.501	
Back of Queue ( Q ), ft/ln ( 50 th percentile)						18.2	16.8	13.8	14.7				56.4	51.4	27.7	
Back of Queue ( Q ), veh/ln ( 50 th percentile)						0.7	0.7	0.6	0.6				2.3	2.1	1.1	
Queue Storage Ratio ( RQ ) ( 50 th percentile)						0.00	0.00	0.00	0.00				0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh						2.8	2.8	2.8	2.8				24.2	23.9	23.6	
Incremental Delay ( d <sub>2</sub> ), s/veh						0.4	0.4	0.5	0.4				1.1	0.4	0.8	
Initial Queue Delay ( d <sub>3</sub> ), s/veh						0.0	0.0	0.0	0.0				0.0	0.0	0.0	
Control Delay ( d ), s/veh						3.2	3.3	3.3	3.2				25.3	24.3	24.4	
Level of Service ( LOS )						A	A	A	A				C	C	C	
Approach Delay, s/veh / LOS					3.2	A		3.2	A	0.0			24.6	C		
Intersection Delay, s/veh / LOS					10.9				B							
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS					1.83	B		2.02	B	2.13	B		2.13	B		
Bicycle LOS Score / LOS					0.97	A		0.88	A			0.82	A			

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM EXISTING+PROJECT8-20...				
Project Description	MORRISON MU EXISTING + PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		440	108	74	378					29	468	90

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	42.8	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

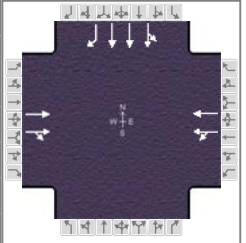
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		46.8		46.8				13.2
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								7.9
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				1.3
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		314	282	236	256					188	353	98
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1687	1287	1611					1811	1900	1215
Queue Service Time ( g <sub>s</sub> ), s		6.6	3.5	0.6	6.3					5.9	5.2	4.4
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		6.6	3.5	7.2	6.3					5.9	5.2	4.4
Green Ratio ( g/C )		0.71	0.71	0.71	0.71					0.15	0.15	0.15
Capacity ( c ), veh/h		1355	1203	998	1149					278	583	187
Volume-to-Capacity Ratio ( X )		0.231	0.234	0.236	0.222					0.674	0.605	0.524
Back of Queue ( Q ), ft/ln ( 50 th percentile)		19.7	18.1	15.1	16.2					59.5	54.2	30.3
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.8	0.7	0.6	0.6					2.4	2.2	1.2
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		3.0	3.0	2.9	2.9					24.0	23.7	23.4
Incremental Delay ( d <sub>2</sub> ), s/veh		0.4	0.5	0.6	0.4					1.1	0.4	0.9
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		3.4	3.4	3.5	3.3					25.0	24.1	24.2
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	3.4	A		3.4	A		0.0			24.4	C	
Intersection Delay, s/veh / LOS	11.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.0	A	0.9	A			0.8	A

# HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE WO PROJECT.xus				
Project Description	MORRISON MU FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		649	112	77	533					30	656	85

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	0.0	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	0.0	0.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		44.3		44.3				15.7
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				0.0
Queue Clearance Time ( g <sub>s</sub> ), s		0.0		0.0				0.0
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				0.0
Phase Call Probability		0.00		0.00				0.00
Max Out Probability		0.00		0.00				0.00

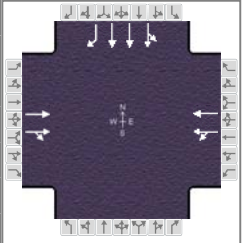
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		0	0	0	0					0	0	0
Adjusted Saturation Flow Rate ( s ), veh/h/ln		0	0	0	0					0	0	0
Queue Service Time ( g <sub>s</sub> ), s		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Green Ratio ( g/C )		0.67	0.67	0.67	0.67					0.19	0.19	0.19
Capacity ( c ), veh/h		1277	1158	890	1083					360	740	241
Volume-to-Capacity Ratio ( X )		0.340	0.340	0.347	0.327					0.724	0.655	0.383
Back of Queue ( Q ), ft/ln ( 50 th percentile)		39.5	36.5	28.3	32.1					80.9	72.7	26.3
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.6	1.5	1.1	1.3					3.2	2.9	1.1
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		4.2	4.2	4.1	4.1					22.6	22.3	21.0
Incremental Delay ( d <sub>2</sub> ), s/veh		0.7	0.8	1.1	0.8					1.0	0.4	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		4.9	5.0	5.2	4.9					23.7	22.7	21.4
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	4.9	A		5.0	A		0.0			22.8	C	
Intersection Delay, s/veh / LOS	11.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.84	B	2.04	B	2.13	B	2.13	B
Bicycle LOS Score / LOS	1.17	A	1.03	A			0.95	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE WITH PROJECT...				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		659	112	77	549					30	684	93

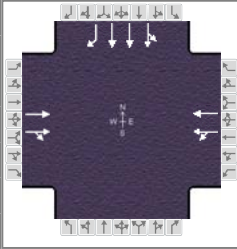
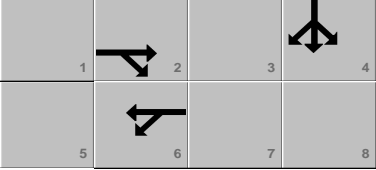
Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	39.9	12.1	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		43.9		43.9				16.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								10.2
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				1.8
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		439	399	318	363					271	505	101
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1725	1219	1611					1850	1900	1242
Queue Service Time ( g <sub>s</sub> ), s		10.0	6.0	1.5	9.7					8.2	7.3	4.2
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		10.0	6.0	11.5	9.7					8.2	7.3	4.2
Green Ratio ( g/C )		0.67	0.67	0.67	0.67					0.20	0.20	0.20
Capacity ( c ), veh/h		1264	1148	887	1072					372	765	250
Volume-to-Capacity Ratio ( X )		0.347	0.348	0.358	0.338					0.728	0.660	0.404
Back of Queue ( Q ), ft/ln ( 50 th percentile)		41.7	38.5	30.3	34.6					83.8	75.3	28.8
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.7	1.5	1.2	1.4					3.4	3.0	1.2
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		4.4	4.4	4.3	4.2					22.4	22.1	20.8
Incremental Delay ( d <sub>2</sub> ), s/veh		0.8	0.8	1.1	0.9					1.0	0.4	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		5.1	5.2	5.4	5.1					23.5	22.4	21.2
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	5.2	A		5.2	A		0.0			22.6	C	
Intersection Delay, s/veh / LOS	11.6						B					

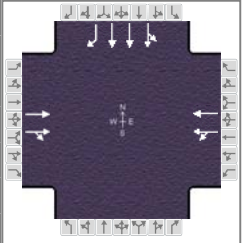
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.0	A			1.0	A

## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency	OVERLAND TRAFFIC				Duration, h	0.25										
Analyst	LF	Analysis Date	1/22/2020		Area Type	Other										
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR		PHF	0.92										
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019		Analysis Period	1 > 7:00										
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM EXISTING.xus													
Project Description	MORRISON MU EXISTING DEC 2019															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h						453	105	38	573					151	1115	217
Signal Information																
Cycle, s	60.0	Reference Phase	2							1	2	3	4			
Offset, s	0	Reference Point	End		Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On		Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase						2		6				4				
Case Number						8.0		8.0				11.0				
Phase Duration, s						36.4		36.4				23.6				
Change Period, ( Y+R <sub>c</sub> ), s						4.0		4.0				4.0				
Max Allow Headway ( MAH ), s						0.0		0.0				0.0				
Queue Clearance Time ( g <sub>s</sub> ), s						0.0		0.0				0.0				
Green Extension Time ( g <sub>e</sub> ), s						0.0		0.0				0.0				
Phase Call Probability						0.00		0.00				0.00				
Max Out Probability						0.00		0.00				0.00				
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement						2	12	1	6				7	4	14	
Adjusted Flow Rate ( v ), veh/h						0	0	0	0				0	0	0	
Adjusted Saturation Flow Rate ( s ), veh/h/ln						0	0	0	0				0	0	0	
Queue Service Time ( g <sub>s</sub> ), s						0.0	0.0	0.0	0.0				0.0	0.0	0.0	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s						0.0	0.0	0.0	0.0				0.0	0.0	0.0	
Green Ratio ( g/C )						0.54	0.54	0.54	0.54				0.33	0.33	0.33	
Capacity ( c ), veh/h						1025	913	1011	839				581	1244	437	
Volume-to-Capacity Ratio ( X )						0.311	0.315	0.350	0.369				0.804	0.731	0.540	
Back of Queue ( Q ), ft/ln ( 50 th percentile)						49.5	45.3	56.4	50.6				142.1	123.9	59.2	
Back of Queue ( Q ), veh/ln ( 50 th percentile)						2.0	1.8	2.3	2.0				5.7	5.0	2.4	
Queue Storage Ratio ( RQ ) ( 50 th percentile)						0.00	0.00	0.00	0.00				0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh						7.7	7.7	7.8	7.8				18.4	17.8	16.5	
Incremental Delay ( d <sub>2</sub> ), s/veh						0.8	0.9	1.0	1.3				3.4	0.7	0.4	
Initial Queue Delay ( d <sub>3</sub> ), s/veh						0.0	0.0	0.0	0.0				0.0	0.0	0.0	
Control Delay ( d ), s/veh						8.4	8.6	8.8	9.0				21.8	18.5	16.9	
Level of Service ( LOS )						A	A	A	A				C	B	B	
Approach Delay, s/veh / LOS					8.5	A	8.9	A	0.0			19.2	B			
Intersection Delay, s/veh / LOS					14.6					B						
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS					1.87	B	2.06	B	2.13	B	2.13	B				
Bicycle LOS Score / LOS					0.99	A	1.04	A			1.37	A				

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	DEC 2019	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM EXISTING+PROJECT 8-2...		
Project Description	MORRISON MU EXISTING+PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		472	105	38	604					151	1158	234

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
				Green	31.8	20.2	0.0	0.0	0.0	0.0			
				Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

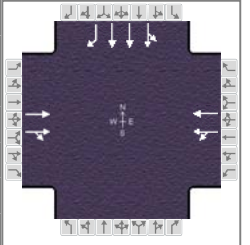
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		35.8		35.8				24.2
Change Period, ( $Y+R_c$ ), s		4.0		4.0				4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0				3.1
Queue Clearance Time ( $g_s$ ), s								16.9
Green Extension Time ( $g_e$ ), s		0.0		0.0				3.3
Phase Call Probability								1.00
Max Out Probability								0.32

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( $v$ ), veh/h		330	297	372	325					484	939	254
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1900	1698	1757	1556					1781	1900	1336
Queue Service Time ( $g_s$ ), s		7.0	6.0	0.0	9.5					14.9	13.1	9.4
Cycle Queue Clearance Time ( $g_c$ ), s		7.0	6.0	6.9	9.5					14.9	13.1	9.4
Green Ratio ( $g/C$ )		0.53	0.53	0.53	0.53					0.34	0.34	0.34
Capacity ( $c$ ), veh/h		1008	901	999	826					599	1277	449
Volume-to-Capacity Ratio ( $X$ )		0.327	0.330	0.373	0.394					0.809	0.735	0.566
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		53	48.7	62	55.3					148.4	127.8	63.8
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		2.1	1.9	2.5	2.2					5.9	5.1	2.6
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh		8.0	8.0	8.2	8.1					18.2	17.6	16.3
Incremental Delay ( $d_2$ ), s/veh		0.9	1.0	1.1	1.4					3.8	0.8	0.4
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( $d$ ), s/veh		8.9	9.0	9.3	9.6					22.0	18.4	16.7
Level of Service ( LOS )		A	A	A	A					C	B	B
Approach Delay, s/veh / LOS	8.9	A		9.4	A		0.0			19.2	B	
Intersection Delay, s/veh / LOS	14.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.0	A	1.1	A			1.4	A

## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	1/22/2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	2 HOPE & PICO PM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		747	109	40	947					157	1359	226

Signal Information																		
Cycle, s	60.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On	Green	29.6	22.4	0.0	0.0	0.0	0.0	1		2		3		4	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5		6		7		8	
				Red	0.0	0.0	0.0	0.0	0.0	0.0								

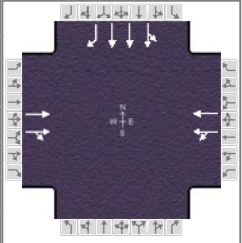
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		33.6		33.6				26.4
Change Period, ( $Y+R_c$ ), s		4.0		4.0				4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0				3.1
Queue Clearance Time ( $g_s$ ), s								19.2
Green Extension Time ( $g_e$ ), s		0.0		0.0				3.2
Phase Call Probability								1.00
Max Out Probability								0.56

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( $v$ ), veh/h		486	444	569	503					566	1082	246
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1900	1738	1749	1556					1802	1900	1343
Queue Service Time ( $g_s$ ), s		11.5	10.4	0.4	17.3					17.2	15.0	8.4
Cycle Queue Clearance Time ( $g_c$ ), s		11.5	10.4	13.1	17.3					17.2	15.0	8.4
Green Ratio ( $g/C$ )		0.49	0.49	0.49	0.49					0.37	0.37	0.37
Capacity ( $c$ ), veh/h		938	858	928	768					672	1418	501
Volume-to-Capacity Ratio ( $X$ )		0.518	0.518	0.614	0.656					0.842	0.763	0.490
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		100.1	92.6	127.9	117.5					182	146.3	56.2
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		4.0	3.7	5.1	4.7					7.3	5.9	2.2
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh		10.3	10.3	11.0	10.9					17.2	16.5	14.4
Incremental Delay ( $d_2$ ), s/veh		2.0	2.2	3.0	4.3					6.5	1.5	0.3
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( $d$ ), s/veh		12.4	12.6	14.0	15.2					23.7	18.0	14.7
Level of Service (LOS)		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	12.5	B		14.6	B		0.0			19.2	B	
Intersection Delay, s/veh / LOS	16.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.07	B	2.13	B	2.13	B
Bicycle LOS Score / LOS	1.26	A	1.37	A			1.53	B

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Aug 20, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM FUTURE WITH PROJECT...				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		766	109	40	978					157	1402	243

Signal Information														
Cycle, s	60.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	29.2	22.8	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
				Red	0.0	0.0	0.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		33.2		33.2				26.8
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								19.7
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				3.1
Phase Call Probability								1.00
Max Out Probability								0.63

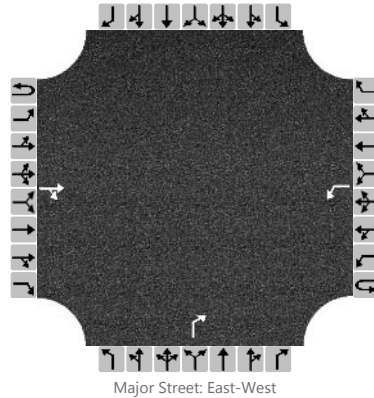
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		496	455	587	519					584	1111	264
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1740	1749	1556					1806	1900	1345
Queue Service Time ( g <sub>s</sub> ), s		11.8	10.9	1.7	18.1					17.7	15.4	9.1
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		11.8	10.9	14.1	18.1					17.7	15.4	9.1
Green Ratio ( g/C )		0.49	0.49	0.49	0.49					0.38	0.38	0.38
Capacity ( c ), veh/h		923	845	914	756					688	1447	512
Volume-to-Capacity Ratio ( X )		0.538	0.538	0.643	0.686					0.849	0.768	0.516
Back of Queue ( Q ), ft/ln ( 50 th percentile)		106.1	98.3	138.3	127.7					189.4	149.7	60.3
Back of Queue ( Q ), veh/ln ( 50 th percentile)		4.2	3.9	5.5	5.1					7.6	6.0	2.4
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		10.7	10.7	11.5	11.3					17.0	16.3	14.3
Incremental Delay ( d <sub>2</sub> ), s/veh		2.2	2.4	3.5	5.0					7.1	1.6	0.3
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		13.0	13.2	14.9	16.4					24.1	17.9	14.6
Level of Service ( LOS )		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	13.1	B		15.6	B		0.0			19.3	B	
Intersection Delay, s/veh / LOS	16.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A			1.6	A

# HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	PROJECT DRIVEWAY
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES
Date Performed	8/21/20	East/West Street	GARAGE ACCESS WAY
Analysis Year	2023	North/South Street	
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	MORRISON MIXED USE		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	0	0		0	0	1		0	0	0
Configuration				TR		L						R				
Volume, V (veh/h)			12	137		20						126				
Percent Heavy Vehicles (%)						0						0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.2				
Critical Headway (sec)						4.10						6.20				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.20						3.30				

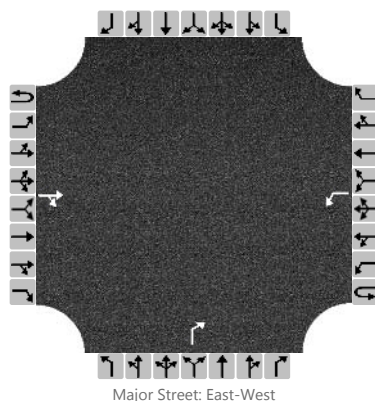
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						22						137				
Capacity, c (veh/h)						1429						976				
v/c Ratio						0.02						0.14				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.5				
Control Delay (s/veh)						7.6						9.3				
Level of Service, LOS						A						A				
Approach Delay (s/veh)					7.6				9.3							
Approach LOS									A							

# HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	PROJECT DRIVEWAY
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES
Date Performed	8/21/2020	East/West Street	GARAGE ACCESS WAY
Analysis Year	2023	North/South Street	
Time Analyzed	pM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	MORRISON MIXED USE		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	0	0		0	0	1		0	0	0
Configuration				TR		L						R				
Volume, V (veh/h)			8	249		39						187				
Percent Heavy Vehicles (%)						0						0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.2				
Critical Headway (sec)						4.10						6.20				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.20						3.30				

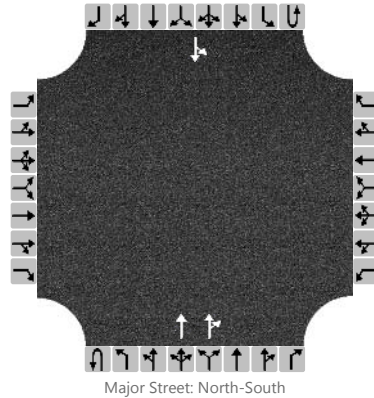
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						42						203				
Capacity, c (veh/h)						1294						909				
v/c Ratio						0.03						0.22				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.9				
Control Delay (s/veh)						7.9						10.1				
Level of Service, LOS						A						B				
Approach Delay (s/veh)					7.9				10.1							
Approach LOS									B							

# HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LF			Intersection	Hope St & Dwy		
Agency/Co.	OVERLAND TRAFFIC			Jurisdiction	LOS ANGELES		
Date Performed	8/25/20			East/West Street	GARAGE ACCESS WAY		
Analysis Year	2023			North/South Street	Hope Street		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	MORRISON MIXED USE						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR		LT		
Volume, V (veh/h)											249	151		0	69	
Percent Heavy Vehicles (%)														3		
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)														4.1		
Critical Headway (sec)														4.16		
Base Follow-Up Headway (sec)														2.2		
Follow-Up Headway (sec)														2.23		

## Delay, Queue Length, and Level of Service

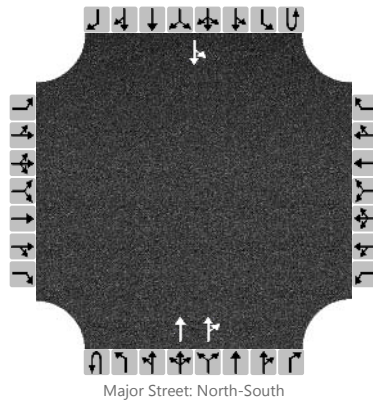
Flow Rate, v (veh/h)														0		
Capacity, c (veh/h)														1114		
v/c Ratio														0.00		
95% Queue Length, Q <sub>95</sub> (veh)														0.0		
Control Delay (s/veh)														8.2		
Level of Service, LOS														A		
Approach Delay (s/veh)													0.0			
Approach LOS																



# HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LF			Intersection	Hope St & Dwy		
Agency/Co.	OVERLAND TRAFFIC			Jurisdiction	LOS ANGELES		
Date Performed	8/25/20			East/West Street	GARAGE ACCESS WAY		
Analysis Year	2023			North/South Street	Hope Street		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	MORRISON MIXED USE						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR		LT		
Volume, V (veh/h)											669	257		1	580	
Percent Heavy Vehicles (%)														3		
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)														4.1		
Critical Headway (sec)														4.16		
Base Follow-Up Headway (sec)														2.2		
Follow-Up Headway (sec)														2.23		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)														1		
Capacity, c (veh/h)														678		
v/c Ratio														0.00		
95% Queue Length, Q <sub>95</sub> (veh)														0.0		
Control Delay (s/veh)														10.3		
Level of Service, LOS														B		
Approach Delay (s/veh)	0.0															
Approach LOS																

Morrison Mixed-Use Project  
1220-1246 South Hope Street & 427-435 Pico Boulevard  
Supplemental Traffic Assessment  
Updated Future Build Out Year from 2023 to 2024

(LADOT Case No: CEN 18-45368)

The Los Angeles Department of Transportation (LADOT) is currently reviewing a Draft Traffic Assessment dated September 2020 with corrections dated November 29, 2020 (Submitted Traffic Assessment) including California Environmental Quality Act (CEQA) and Non-CEQA evaluation. As the entitlement process has continued, it has been determined that the projected future buildout year of 2023 included in this analysis may not be able to be achieved. Therefore, this supplement evaluates traffic conditions for a revised future buildout year of 2024.

The existing conditions and proposed Project do not change from what is presented in the Submitted Traffic Assessment. The following presents the CEQA and Non-CEQA evaluation of the future 2024 conditions.

### **CEQA Future Evaluation**

Since the entitlement requests and Project description do not change, increase of the future buildout year does not change the VMT calculation. As with the Project evaluated in the Submitted Traffic Assessment, Project features include reduced parking supply and inclusion of bike parking per Los Angeles Municipal Code (LAMC). The results of the Household VMT per capita is 3.5 which is below the Central APC area threshold value of 6.0. The results of the Work VMT per employee is 6.7 which is below the Central APC area threshold value of 7.6.

The future Cumulative VMT impacts are evaluated through a consistency check with the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) plan. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets.

Per the City's Traffic Assessment Guidelines (TAG), projects that are consistent with the RTP/SCS plan in terms of development location and density are part of the regional solution for meeting air pollution and GHG goals. Projects that have less than a

significant VMT impact are deemed to be consistent with the SCAG's 2016-2040 RTP/SCS and would have a less-than-significant cumulative impact on VMT.

The Project VMT impact would not exceed the City's Central APC VMT impact thresholds and as such, the Project's contribution to the cumulative VMT impact is adequate to demonstrate there is no cumulative VMT impact.

There are no changes to the CEQA analysis presented. However, minor changes to the Non-CEQA analysis occur in the Future Without and With Project Traffic Conditions at the four study intersections and driveways. Following is a presentation of these changes.

### INCREASE TO FUTURE YEAR 2024

The Project's Submitted Traffic Assessment estimated the future buildout year of the Project as 2023. This Supplemental Traffic Assessment has extended this time period to assume a buildout year of 2024. The extension of one year includes a 1% ambient growth in traffic volumes for the future conditions without Project and future with Project, which is consistent with LADOT requirements.

#### Analysis Findings

This Supplemental Traffic Assessment was conducted is based on the LADOT's July 2020 TAG. Table 1 displays the delay findings of the analysis accounting for future 2023 from the Submitted Traffic Assessment 2024 traffic conditions without the project with the project completion at the 4 study intersections.

Table 1  
HCS Summary Future 2023 and 2024 without & with Project

No.	Intersection	Peak Hour	From Submitted Traffic Assessment							
			Future (2023) + Ambient Growth + Related Projects		Future (2023) + Ambient + Related + Project		Future (2024) + Ambient Growth + Related Projects		Future (2024) + Ambient + Related + Project	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	12th Street & Hope Street	AM	7.5	A	7.8	A	7.6	A	8.0	A
		PM	10.2	B	10.8	B	10.2	B	10.8	B
2	Hope Street & Pico Boulevard	AM	21.0	C	22.8	C	21.9	C	28.7	C
		PM	24.8	C	49.7	D	25.2	C	53.3	D
3	12th Street & Grand Avenue	AM	21.0	C	21.2	C	21.4	C	21.6	C
		PM	25.6	C	26.1	C	26.4	C	27.0	C
4	Grand Avenue & Pico Boulevard	AM	11.4	B	11.6	B	11.4	B	11.6	B
		PM	16.3	B	16.8	B	16.7	B	17.2	B

The Highway Capacity Software (HCS) worksheets for this analysis are provided in Attachment A. Figure 1 shows the future (2024) traffic volumes without the Project and Figure 2 displays the projected future (2024) traffic volumes with the Project.

Findings in Table 1 indicate that the delay increases mildly but the LOS does not change at 12<sup>th</sup> Street & Hope Street, at 12<sup>th</sup> Street & Grand Avenue and at Grand Avenue & Pico Boulevard. The intersection of Pico Boulevard & Hope Street provides circulation for both the arrival and departures of the tenants, the hotel guests, and commercial employees and guest, but it is also part of the valet circulation. The intersection delay increases from LOS C without the Project to LOS D during the PM Peak Hour with the Project when evaluating future 2023 and future 2024 conditions. However, the 2024 evaluation does demonstrate a possible increase in the operating conditions for eastbound and northbound directions. The LOS for the eastbound left turn traffic movement increases to LOS F, the northbound to LOS F and the southbound through to LOS E with the Project in future year 2024. As with the Submitted Traffic Assessment, consideration was given for installation of an eastbound left turn phase. However, there is not sufficient right-of-way to install a dedicated left turn lane which would allow the eastbound and westbound directions to operate separately creating greater overall intersection delay. An evaluation was conducted to operate the eastbound and westbound traffic movements independently without a left turn. This creates poor intersection operating conditions of LOS E or F. Therefore, since the overall intersection operation of LOS D is not considered deficient and no changes are being recommended with the Project. Accounting for future 2024 traffic conditions without the Project and 2024 Project completion does not change the conclusions in the Submitted Traffic Assessment.

Table 2 displays the delay findings of the analysis accounting for future 2024 traffic conditions at the Project’s covered driveway and Hope Street and at the Project’s covered driveway and garage entry. Table 3, on the following displays the Project driveway queue lengths. The queue lengths do not change at the Project driveways.

Table 2  
HCS Summary  
Future 2023 and 2024 at Project Driveways

No.	Intersection	Peak Hour	From Submitted Traffic Assessment			Direction	Future (2024) + Ambient + Related + Project	
			Direction	Future (2023) + Ambient + Related + Project			Delay (s)	LOS
				Delay (s)	LOS			
A	Project Driveway & Project Covered Driveway	AM	WB	7.6	A	WB	7.6	A
			NB	9.3	A	NB	9.3	A
		PM	WB	7.9	A	WB	7.9	A
			NB	10.1	B	NB	10.1	B
B	Hope Street & Project Covered Driveway	AM	SB	8.2	A	SB	9.4	A
		PM	SB	10.3	B	SB	10.3	B

Table 3  
Queue Length  
Future 2024 at Project Driveways

<b>No.</b>	<b>Intersection</b>	<b>Peak Hour</b>	<b>TYPICAL QUEUE LENGTH</b>	
			<b>DIRECTION</b>	<b># of Cars</b>
A	Project driveway & Accessway	AM	WBL	0
			NBR	1
		PM	WBL	1
			NBR	1
B	Hope Street & Project Covered Driveway	AM	SBL	0
		PM	SBL	0

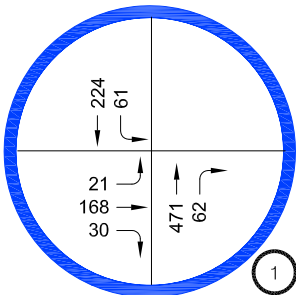
WBL = Westbound Left  
 NBR = Northbound Right  
 SBL = Southbound Left

The results of the driveway queues do not change at all between future year 2023 and 2024 with Project conditions.

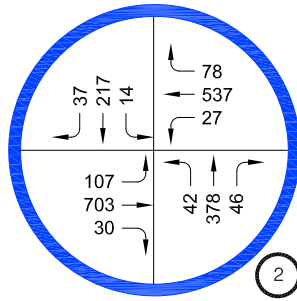
**SUPPLEMENTAL TRAFFIC ANALYSIS SUMMARY**

Based on the LADOT TAG, CEQA and Non-CEQA, traffic conditions changed extending buildout year from 2023 to 2024 completion of the Project does not change any of the conclusions in the Project’s Submitted Traffic Assessment. Since there is no change to the Project itself, the CEQA analysis indicates no change to the Work or Household VMT results and lack of significant impacts. The cumulative CEQA impacts do not change.

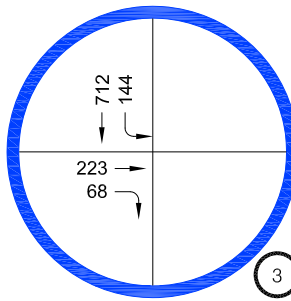
The Non-CEQA analysis indicates slight increase in delay at some intersections but does not change the LOS at the study intersections and driveways. The conclusions of the Submitted Traffic Assessment do not change with the extension of the build out year to 2024.



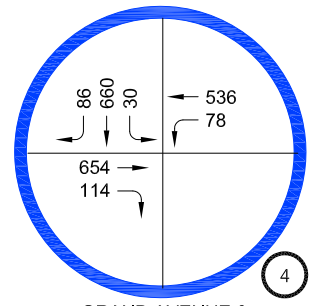
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

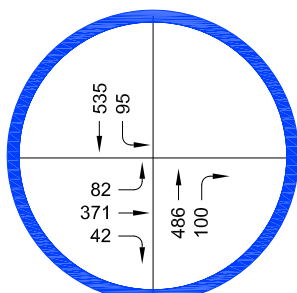
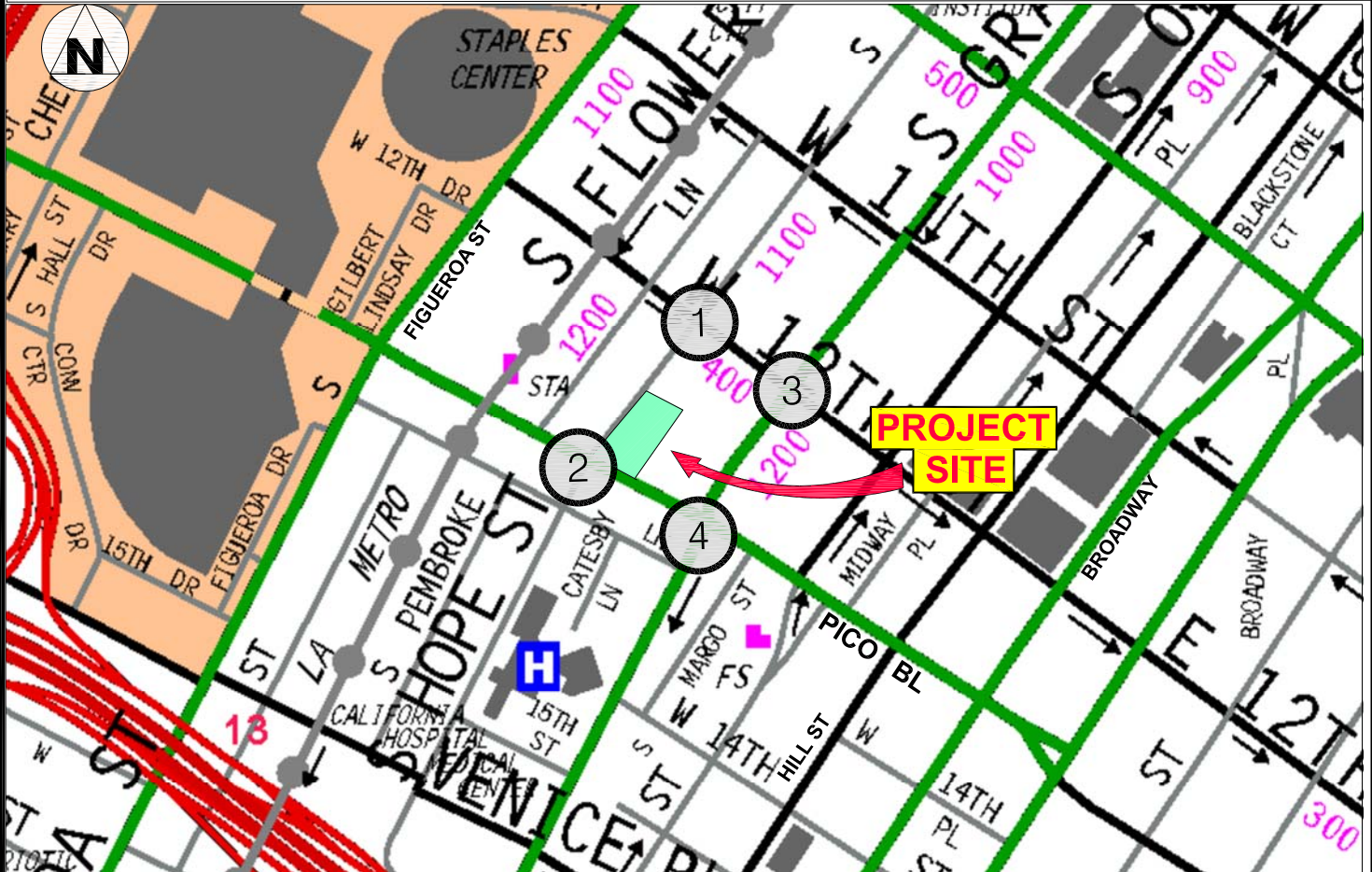


GRAND AVENUE & 12TH STREET

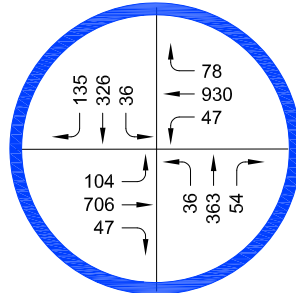


GRAND AVENUE & PICO BOULEVARD

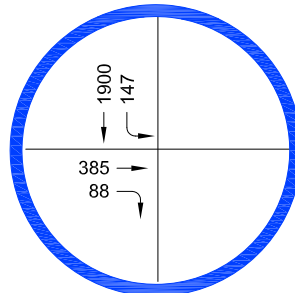
AM PEAK HOUR



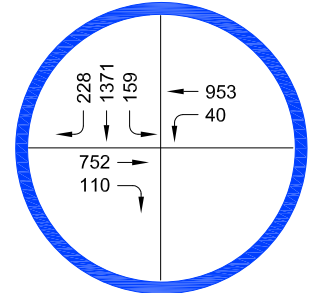
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



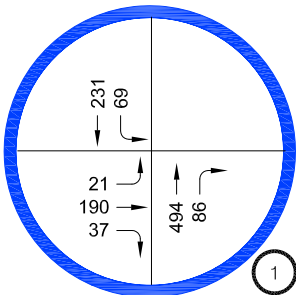
GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

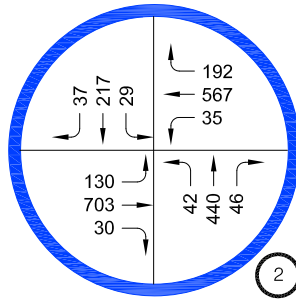
FUTURE (2024)  
WITHOUT PROJECT  
TRAFFIC VOLUMES

Overland Traffic Consultants, Inc.

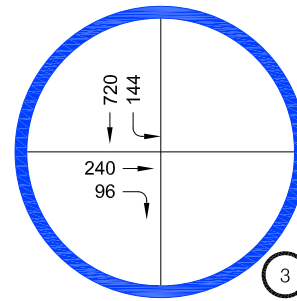
952 Manhattan Beach Bl #100, Manhattan Beach Ca 90266  
(310)545-1235, (661)799-8423, liz@overlandtraffic.com



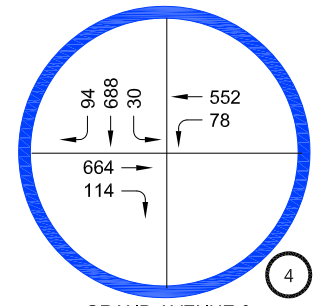
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

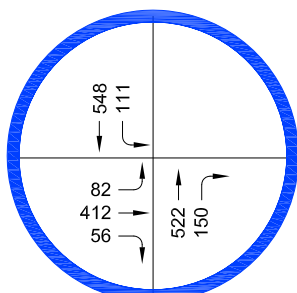
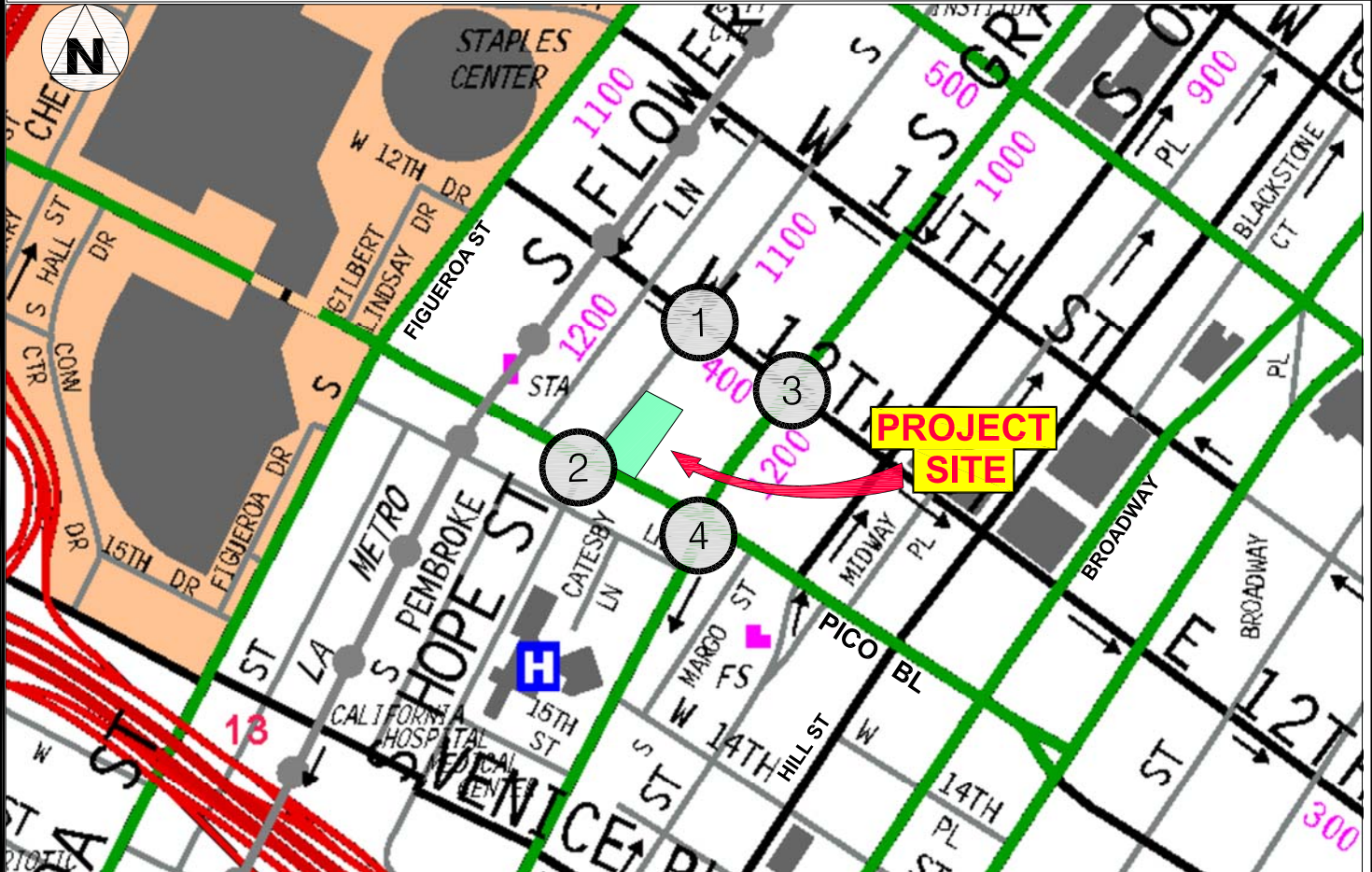


GRAND AVENUE & 12TH STREET

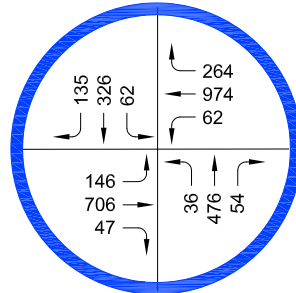


GRAND AVENUE & PICO BOULEVARD

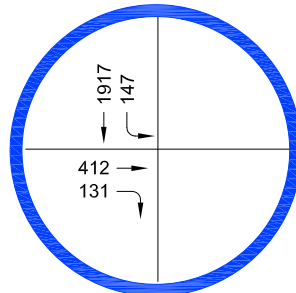
AM PEAK HOUR



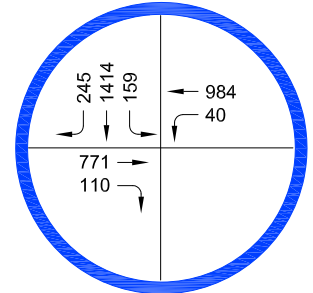
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

**FUTURE (2024)  
WITH PROJECT  
TRAFFIC VOLUMES**

**FIGURE 10**

**Overland Traffic Consultants, Inc.**

952 Manhattan Beach Bl #100, Manhattan Beach Ca 90266  
(310)545-1235, (661)799-8423, liz@overlandtraffic.com

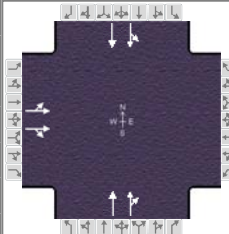
ATTACHMENT A

HCS Worksheets



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.93
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT WO PROJ.xus		
Project Description	MORRISON MU - FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	21	168	30					471	62	61	224	

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	45.7	6.3	0.0	0.0	0.0	0.0				
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
		Red	0.0	0.0	0.0	0.0	0.0	0.0				

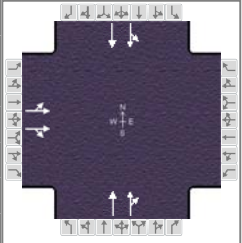
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.3				49.7		49.7
Change Period, ( $Y+R_c$ ), s		4.0				4.0		4.0
Max Allow Headway ( $MAH$ ), s		3.1				0.0		0.0
Queue Clearance Time ( $g_s$ ), s		6.0						
Green Extension Time ( $g_e$ ), s		0.4				0.0		0.0
Phase Call Probability		0.98						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( $v$ ), veh/h	126		109				293	280	141	166		
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1811		1618				1827	1730	1079	1663		
Queue Service Time ( $g_s$ ), s	4.0		3.9				6.5	2.8	0.6	3.6		
Cycle Queue Clearance Time ( $g_c$ ), s	4.0		3.9				6.5	2.8	7.0	3.6		
Green Ratio ( $g/C$ )	0.10		0.10				0.76	0.76	0.76	0.76		
Capacity ( $c$ ), veh/h	190		170				1392	1318	910	1266		
Volume-to-Capacity Ratio ( $X$ )	0.664		0.643				0.211	0.213	0.154	0.131		
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	42		36.4				11	10.4	5.5	6		
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	1.7		1.5				0.4	0.4	0.2	0.2		
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( $d_1$ ), s/veh	25.8		25.8				2.0	2.0	2.0	1.9		
Incremental Delay ( $d_2$ ), s/veh	1.5		1.5				0.3	0.4	0.4	0.2		
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( $d$ ), s/veh	27.3		27.3				2.4	2.4	2.4	2.1		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	27.3		C	0.0			2.4	A	2.2	A		
Intersection Delay, s/veh / LOS	7.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Nov 25, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.93		
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT With PROJ.xus				
Project Description	MORRISON MU - FUTURE With PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	21	190	37					494	86	69	231	

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	60.0	Reference Phase	2	Green	45.1	6.9	0.0	0.0	0.0	0.0	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5	6	7	8	
Uncoordinated	No	Simult. Gap E/W	On	Red	0.0	0.0	0.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												

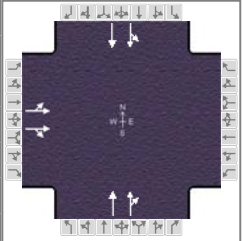
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.9				49.1		49.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.2				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		6.6						
Green Extension Time ( g <sub>e</sub> ), s		0.5				0.0		0.0
Phase Call Probability		0.99						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	143		123				321	302	143	179		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1813		1613				1827	1704	975	1663		
Queue Service Time ( g <sub>s</sub> ), s	4.6		4.4				7.2	3.2	0.8	3.9		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.6		4.4				7.2	3.2	8.0	3.9		
Green Ratio ( g/C )	0.12		0.12				0.75	0.75	0.75	0.75		
Capacity ( c ), veh/h	210		186				1372	1280	823	1249		
Volume-to-Capacity Ratio ( X )	0.684		0.661				0.234	0.236	0.174	0.144		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	47.4		40.7				14.5	13.5	6.7	7.6		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.9		1.6				0.6	0.5	0.3	0.3		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	25.5		25.4				2.3	2.3	2.3	2.1		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.5				0.4	0.4	0.5	0.2		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	27.0		26.9				2.7	2.7	2.7	2.3		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	26.9		C	0.0			2.7	A	2.5	A		
Intersection Delay, s/veh / LOS	8.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.8	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.96		
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE WO PROJ.xus				
Project Description	MORRISON MU - FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	82	371	42						486	100	95	535

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	60.0	Reference Phase	2	Green	40.5	11.5	0.0	0.0	0.0	0.0	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5	6	7	8	
Uncoordinated	No	Simult. Gap E/W	On	Red	0.0	0.0	0.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												

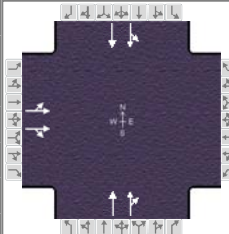
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		15.5				44.5		44.5
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		10.6						
Green Extension Time ( g <sub>e</sub> ), s		0.9				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate ( v ), veh/h	274		242					316	294	298	358	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1816		1752					1863	1711	1255	1695	
Queue Service Time ( g <sub>s</sub> ), s	8.6		7.8					6.9	4.0	0.9	8.5	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	8.6		7.8					6.9	4.0	7.7	8.5	
Green Ratio ( g/C )	0.19		0.19					0.68	0.68	0.68	0.68	
Capacity ( c ), veh/h	348		335					1258	1155	927	1145	
Volume-to-Capacity Ratio ( X )	0.787		0.722					0.252	0.254	0.322	0.313	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	87.2		75.4					26.4	24.7	26.2	32.3	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	3.5		3.0					1.0	1.0	1.0	1.3	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	23.1		22.8					3.8	3.8	3.9	4.0	
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.1					0.5	0.5	0.9	0.7	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh	24.6		23.9					4.3	4.4	4.8	4.7	
Level of Service ( LOS )	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	24.3		C	0.0			4.3		A	4.7		A
Intersection Delay, s/veh / LOS	10.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	0.9	A			1.0	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.96		
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE With PROJ.xus				
Project Description	MORRISON MU - FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	82	412	56					522	150	111	548	

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	39.4	12.6	0.0	0.0	0.0	0.0				
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
		Red	0.0	0.0	0.0	0.0	0.0	0.0				

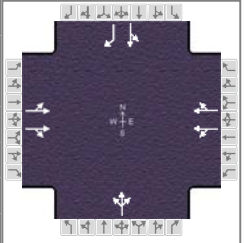
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		16.6				43.4		43.4
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		11.6						
Green Extension Time ( g <sub>e</sub> ), s		1.0				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate ( v ), veh/h	305		267					368	332	297	390	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1819		1737					1863	1665	1071	1695	
Queue Service Time ( g <sub>s</sub> ), s	9.6		8.6					8.1	5.1	3.1	9.2	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	9.6		8.6					8.1	5.1	11.2	9.2	
Green Ratio ( g/C )	0.21		0.21					0.66	0.66	0.66	0.66	
Capacity ( c ), veh/h	381		364					1224	1094	787	1114	
Volume-to-Capacity Ratio ( X )	0.802		0.735					0.301	0.303	0.377	0.350	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	96.5		82.4					35.8	32.4	30.4	40.4	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	3.9		3.3					1.4	1.3	1.2	1.6	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	22.5		22.2					4.4	4.4	4.9	4.6	
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.1					0.6	0.7	1.4	0.9	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh	24.0		23.3					5.0	5.1	6.3	5.4	
Level of Service ( LOS )	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	23.7		C	0.0			5.1		A	5.8		A
Intersection Delay, s/veh / LOS	10.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	1.0	A			1.1	A	1.1	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE WO PROJECT.xus				
Project Description	MORRISON MU FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	107	703	30	27	537	78	42	378	46	14	217	37

Signal Information												
Cycle, s	100.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	61.0	31.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

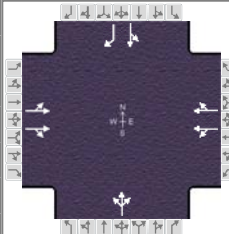
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		65.0		65.0		35.0		35.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.1		3.1
Queue Clearance Time ( g <sub>s</sub> ), s						31.0		12.7
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		1.6
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	424			489			370			328		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1244			1599			1604			1432		
Queue Service Time ( g <sub>s</sub> ), s	12.7			16.4			0.0			10.9		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	23.7			16.4			10.5			10.9		
Green Ratio ( g/C )	0.61			0.61			0.61			0.61		
Capacity ( c ), veh/h	805			975			1017			874		
Volume-to-Capacity Ratio ( X )	0.527			0.501			0.363			0.376		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	149.6			146.2			97.4			88.7		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	6.0			5.8			3.9			3.5		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	12.3			10.8			9.7			9.7		
Incremental Delay ( d <sub>2</sub> ), s/veh	2.5			1.8			1.0			1.2		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0			0.0			0.0			0.0		
Control Delay ( d ), s/veh	14.7			12.6			10.7			11.0		
Level of Service ( LOS )	B			B			B			B		
Approach Delay, s/veh / LOS	13.6			B			10.8			B		
Intersection Delay, s/veh / LOS				21.9						C		

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.1	A	1.3	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE WITH PROJECT.xus		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	130	703	30	35	567	192	42	440	46	29	217	37

Signal Information													
Cycle, s	100.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	0.0	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	0.0	0.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

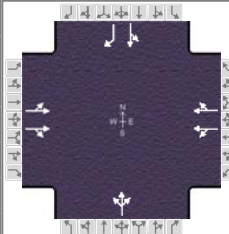
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		65.0		65.0		35.0		35.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		0.0		0.0		0.0		0.0
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate ( v ), veh/h	0		0	0		0		0		0		0	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	0		0	0		0		0		0		0	
Queue Service Time ( g <sub>s</sub> ), s	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Green Ratio ( g/C )	0.61		0.61	0.61		0.61		0.31		0.31		0.31	
Capacity ( c ), veh/h	631		977	1015		825		573		512		444	
Volume-to-Capacity Ratio ( X )	0.635		0.550	0.461		0.478		1.002		0.522		0.091	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	179.1		168.5	134.2		116.9		511.1		128.8		17.8	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	7.2		6.7	5.4		4.7		19.8		5.1		0.7	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00		0.00		0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	16.2		11.3	10.4		10.5		35.4		27.8		24.5	
Incremental Delay ( d <sub>2</sub> ), s/veh	4.8		2.2	1.5		2.0		38.1		0.5		0.0	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Control Delay ( d ), s/veh	21.0		13.5	11.9		12.5		73.5		28.3		24.5	
Level of Service ( LOS )	C		B	B		B		F		C		C	
Approach Delay, s/veh / LOS	16.7		B	12.2		B		73.5		E		27.8	C
Intersection Delay, s/veh / LOS	28.7						C						

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.2	A	1.4	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.93		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITHOUT PROJE...				
Project Description	MORRISON MU FUTURE WITHOUT PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	104	706	47	47	930	78	36	363	54	36	326	135

Signal Information																		
Cycle, s	100.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On	Green	62.0	30.0	0.0	0.0	0.0	0.0	1		2		3		4	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5		6		7		8	
				Red	0.0	0.0	0.0	0.0	0.0	0.0								

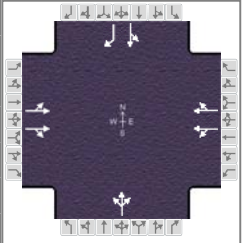
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		66.0		66.0		34.0		34.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.2		3.2
Queue Clearance Time ( g <sub>s</sub> ), s						31.9		25.4
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		1.3
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.65

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	384		537	602		533		487			389	145
Adjusted Saturation Flow Rate ( s ), veh/h/ln	865		1585	1619		1447		1629			1510	1449
Queue Service Time ( g <sub>s</sub> ), s	19.7		18.4	1.5		19.5		6.5			0.0	7.8
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	39.2		18.4	20.0		19.5		29.9			23.4	7.8
Green Ratio ( g/C )	0.62		0.62	0.62		0.62		0.30			0.30	0.30
Capacity ( c ), veh/h	583		982	1043		897		527			493	435
Volume-to-Capacity Ratio ( X )	0.660		0.547	0.577		0.594		0.923			0.790	0.334
Back of Queue ( Q ), ft/ln ( 50 th percentile)	181.1		163.4	185.2		167.8		378.2			241.8	66.9
Back of Queue ( Q ), veh/ln ( 50 th percentile)	7.2		6.5	7.4		6.7		14.5			9.4	2.7
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	15.9		10.7	10.9		10.9		34.7			31.8	27.2
Incremental Delay ( d <sub>2</sub> ), s/veh	5.8		2.2	2.3		2.9		21.7			7.8	0.2
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	21.6		12.9	13.2		13.8		56.4			39.6	27.4
Level of Service ( LOS )	C		B	B		B		E			D	C
Approach Delay, s/veh / LOS	16.6		B	13.5		B		56.4		E	36.3	D
Intersection Delay, s/veh / LOS	25.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.4	A	1.3	A	1.4	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.93		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITH PROJECT.xus				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	146	706	47	62	974	264	36	476	54	62	326	135

Signal Information																		
Cycle, s	95.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On	Green	56.0	31.0	0.0	0.0	0.0	0.0	1		2		3		4	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	5		6		7		8	
				Red	0.0	0.0	0.0	0.0	0.0	0.0								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		60.0		60.0		35.0		35.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.3		3.3
Queue Clearance Time ( g <sub>s</sub> ), s						33.0		33.0
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

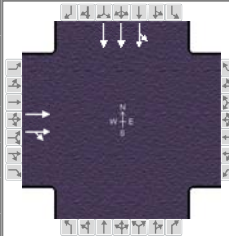
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	309		657	743		655		609			417	145
Adjusted Saturation Flow Rate ( s ), veh/h/ln	357		1590	1246		1360		1606			1205	1446
Queue Service Time ( g <sub>s</sub> ), s	25.0		25.8	30.2		31.0		0.0			0.0	7.1
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	56.0		25.8	56.0		31.0		31.0			31.0	7.1
Green Ratio ( g/C )	0.59		0.59	0.59		0.59		0.33			0.33	0.33
Capacity ( c ), veh/h	268		937	776		802		564			437	472
Volume-to-Capacity Ratio ( X )	1.155		0.701	0.958		0.817		1.078			0.954	0.308
Back of Queue ( Q ), ft/ln ( 50 th percentile)	348		239.4	507.9		277.3		578.2			334.3	60
Back of Queue ( Q ), veh/ln ( 50 th percentile)	13.9		9.6	20.3		11.1		22.2			13.1	2.4
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	31.7		13.3	21.3		14.4		32.6			31.3	24.0
Incremental Delay ( d <sub>2</sub> ), s/veh	103.5		4.4	23.5		9.0		60.8			31.3	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( d ), s/veh	135.2		17.7	44.8		23.4		93.4			62.6	24.1
Level of Service ( LOS )	F		B	D		C		F			E	C
Approach Delay, s/veh / LOS	55.3		E	34.8		C		93.4		F	52.7	D
Intersection Delay, s/veh / LOS	53.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.6	A	1.5	A	1.4	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.91
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		223	68							144	712	

Signal Information													
Cycle, s	65.0	Reference Phase	2	↔	↓					↗	↘		
Offset, s	0	Reference Point	End	Green	42.6	14.4	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0			

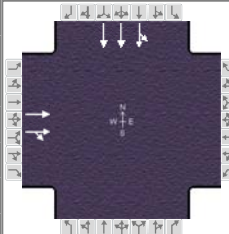
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		46.6						18.4
Change Period, ( $Y+R_c$ ), s		4.0						4.0
Max Allow Headway ( $MAH$ ), s		0.0						3.0
Queue Clearance Time ( $g_s$ ), s								13.2
Green Extension Time ( $g_e$ ), s		0.0						1.2
Phase Call Probability								1.00
Max Out Probability								0.48

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( $v$ ), veh/h		165	155							329	612	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1881	1678							1819	1863	
Queue Service Time ( $g_s$ ), s		2.5	2.3							11.2	9.9	
Cycle Queue Clearance Time ( $g_c$ ), s		2.5	2.3							11.2	9.9	
Green Ratio ( $g/C$ )		0.66	0.66							0.22	0.22	
Capacity ( $c$ ), veh/h		1234	1100							402	824	
Volume-to-Capacity Ratio ( $X$ )		0.134	0.141							0.818	0.742	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		16.1	15.2							129	106.4	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		0.6	0.6							5.2	4.2	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( $d_1$ ), s/veh		4.2	4.2							24.1	23.6	
Incremental Delay ( $d_2$ ), s/veh		0.2	0.3							6.7	1.6	
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( $d$ ), s/veh		4.4	4.5							30.8	25.1	
Level of Service ( LOS )		A	A							C	C	
Approach Delay, s/veh / LOS	4.5		A	0.0			0.0			27.1		C
Intersection Delay, s/veh / LOS	21.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.91
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		240	96							144	720	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	42.7	14.3	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

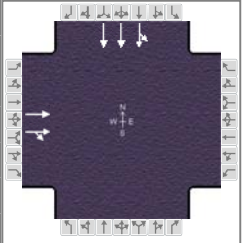
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		46.7						18.3
Change Period, ( $Y+R_c$ ), s		4.0						4.0
Max Allow Headway ( $MAH$ ), s		0.0						3.0
Queue Clearance Time ( $g_s$ ), s								13.3
Green Extension Time ( $g_e$ ), s		0.0						1.0
Phase Call Probability								1.00
Max Out Probability								0.77

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( $v$ ), veh/h		193	176							332	617	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1881	1637							1819	1863	
Queue Service Time ( $g_s$ ), s		2.8	2.7							11.3	10.1	
Cycle Queue Clearance Time ( $g_c$ ), s		2.8	2.7							11.3	10.1	
Green Ratio ( $g/C$ )		0.66	0.66							0.22	0.22	
Capacity ( $c$ ), veh/h		1235	1075							401	821	
Volume-to-Capacity Ratio ( $X$ )		0.156	0.164							0.829	0.752	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		19.1	17.8							135.6	109.1	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		0.8	0.7							5.4	4.3	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( $d_1$ ), s/veh		4.3	4.3							24.2	23.7	
Incremental Delay ( $d_2$ ), s/veh		0.3	0.3							8.7	2.1	
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( $d$ ), s/veh		4.5	4.6							32.8	25.8	
Level of Service (LOS)		A	A							C	C	
Approach Delay, s/veh / LOS	4.6		A	0.0			0.0			28.3		C
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		385	88							147	1900	

Signal Information				Signal Phases									
Cycle, s	65.0	Reference Phase	2	↔	↓					↘	↙		
Offset, s	0	Reference Point	End	Green	29.0	28.0	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0			

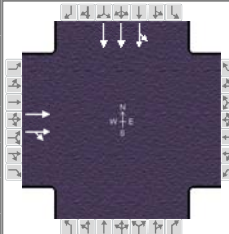
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								28.5
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.0
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		271	243							785	1440	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1653							1881	1900	
Queue Service Time ( g <sub>s</sub> ), s		5.8	6.2							26.5	22.6	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		5.8	6.2							26.5	22.6	
Green Ratio ( g/C )		0.45	0.45							0.43	0.43	
Capacity ( c ), veh/h		848	737							810	1637	
Volume-to-Capacity Ratio ( X )		0.320	0.329							0.969	0.880	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		60.3	55							376.6	239.6	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		2.4	2.2							15.1	9.6	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		11.6	11.7							18.1	17.0	
Incremental Delay ( d <sub>2</sub> ), s/veh		1.0	1.2							24.1	5.7	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		12.6	12.9							42.2	22.6	
Level of Service ( LOS )		B	B							D	C	
Approach Delay, s/veh / LOS	12.7	B		0.0			0.0			29.5	C	
Intersection Delay, s/veh / LOS	26.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.9	A					1.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		412	131							147	1917	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	0.0	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	0.0	0.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

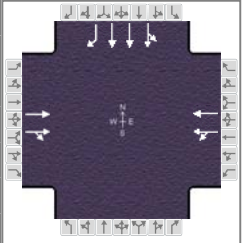
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						0.0
Queue Clearance Time ( g <sub>s</sub> ), s		0.0						0.0
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.0
Phase Call Probability		0.00						0.00
Max Out Probability		0.00						0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		0	0							0	0	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		0	0							0	0	
Queue Service Time ( g <sub>s</sub> ), s		0.0	0.0							0.0	0.0	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		0.0	0.0							0.0	0.0	
Green Ratio ( g/C )		0.45	0.45							0.43	0.43	
Capacity ( c ), veh/h		848	707							810	1637	
Volume-to-Capacity Ratio ( X )		0.375	0.385							0.977	0.887	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		73.1	64.3							390.5	244.8	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		2.9	2.6							15.6	9.8	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		12.0	12.0							18.2	17.0	
Incremental Delay ( d <sub>2</sub> ), s/veh		1.3	1.6							25.9	6.1	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		13.2	13.6							44.1	23.1	
Level of Service ( LOS )		B	B							D	C	
Approach Delay, s/veh / LOS	13.4		B	0.0			0.0			30.5		C
Intersection Delay, s/veh / LOS	27.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	1.0	A					1.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.95
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		654	114	78	536					30	660	86

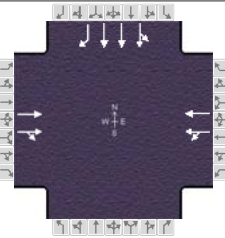
Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	40.4	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		44.4		44.4				15.6
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								9.9
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				1.7
Phase Call Probability								1.00
Max Out Probability								0.00

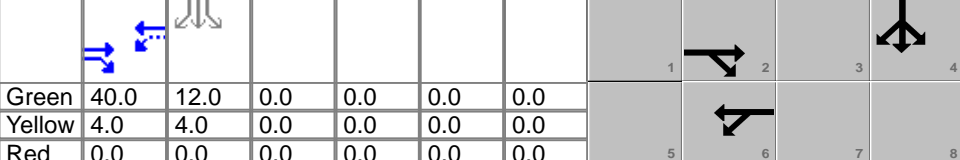
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		424	385	303	344					254	473	91
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1863	1688	1173	1549					1810	1863	1222
Queue Service Time ( g <sub>s</sub> ), s		9.8	5.8	1.5	9.5					7.9	7.0	3.9
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		9.8	5.8	11.3	9.5					7.9	7.0	3.9
Green Ratio ( g/C )		0.67	0.67	0.67	0.67					0.19	0.19	0.19
Capacity ( c ), veh/h		1254	1137	866	1043					350	720	236
Volume-to-Capacity Ratio ( X )		0.338	0.338	0.349	0.329					0.725	0.656	0.383
Back of Queue ( Q ), ft/ln ( 50 th percentile)		38.8	35.2	27.7	32.2					78.9	72.2	26.1
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.5	1.4	1.1	1.2					3.2	2.8	1.0
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		4.1	4.1	4.1	4.0					22.7	22.4	21.1
Incremental Delay ( d <sub>2</sub> ), s/veh		0.7	0.8	1.1	0.8					1.1	0.4	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		4.9	5.0	5.2	4.9					23.8	22.7	21.5
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	4.9	A		5.0	A			0.0		22.9	C	
Intersection Delay, s/veh / LOS	11.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.0	A			0.9	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	OVERLAND TRAFFIC			Duration, h	0.25	
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other	
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.95	
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00	
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE With PROJECT.xus			
Project Description	MORRISON MU FUTURE WO PROJECT					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h		664	114	78	552					30	688	94

Signal Information																		
Cycle, s	60.0	Reference Phase	2	Green	40.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On															

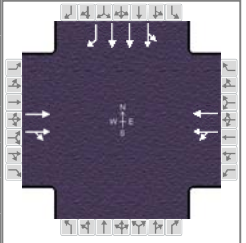
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		44.0		44.0				16.0
Change Period, ( $Y+R_c$ ), s		4.0		4.0				4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0				3.1
Queue Clearance Time ( $g_s$ ), s								10.2
Green Extension Time ( $g_e$ ), s		0.0		0.0				1.8
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( $v$ ), veh/h		429	390	311	352					264	492	99
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1863	1689	1181	1549					1814	1863	1225
Queue Service Time ( $g_s$ ), s		10.0	6.0	1.5	9.8					8.2	7.3	4.2
Cycle Queue Clearance Time ( $g_c$ ), s		10.0	6.0	11.5	9.8					8.2	7.3	4.2
Green Ratio ( $g/C$ )		0.67	0.67	0.67	0.67					0.20	0.20	0.20
Capacity ( $c$ ), veh/h		1242	1127	863	1034					362	744	245
Volume-to-Capacity Ratio ( $X$ )		0.345	0.346	0.360	0.341					0.730	0.661	0.405
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		41.2	37.5	29.9	34.6					81.8	74.7	28.5
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		1.6	1.5	1.2	1.3					3.3	2.9	1.1
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh		4.3	4.3	4.2	4.2					22.5	22.1	20.9
Incremental Delay ( $d_2$ ), s/veh		0.8	0.8	1.2	0.9					1.1	0.4	0.4
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( $d$ ), s/veh		5.1	5.2	5.4	5.1					23.6	22.5	21.3
Level of Service (LOS)		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	5.1	A		5.2	A		0.0			22.7	C	
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.0	A			1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		752	110	40	953					159	1371	228

Signal Information				Signal Phases								
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	29.3	22.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

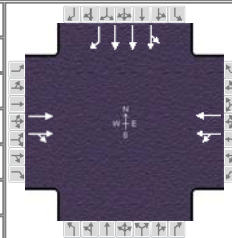
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		33.3		33.3				26.7
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								19.6
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				3.1
Phase Call Probability								1.00
Max Out Probability								0.60

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		489	448	573	507					572	1091	248
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1845	1687	1731	1541					1785	1881	1303
Queue Service Time ( g <sub>s</sub> ), s		12.1	11.1	1.1	17.7					17.6	15.3	8.8
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		12.1	11.1	13.6	17.7					17.6	15.3	8.8
Green Ratio ( g/C )		0.49	0.49	0.49	0.49					0.38	0.38	0.38
Capacity ( c ), veh/h		902	825	911	753					674	1422	492
Volume-to-Capacity Ratio ( X )		0.543	0.543	0.629	0.673					0.848	0.768	0.503
Back of Queue ( Q ), ft/ln ( 50 th percentile)		107.3	97	132.2	122.9					185.7	149	58
Back of Queue ( Q ), veh/ln ( 50 th percentile)		4.2	3.9	5.3	4.9					7.4	5.9	2.3
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		10.7	10.7	11.3	11.1					17.1	16.4	14.3
Incremental Delay ( d <sub>2</sub> ), s/veh		2.3	2.6	3.3	4.8					7.0	1.6	0.3
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		13.0	13.2	14.6	15.9					24.1	18.0	14.6
Level of Service ( LOS )		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	13.1	B		15.2	B		0.0			19.4	B	
Intersection Delay, s/veh / LOS	16.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A			1.5	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM FUTURE With PROJECT.x...		
Project Description	MORRISON MU FUTURE With PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		771	110	40	984					159	1414	245

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
		Green		28.9	23.1	0.0	0.0	0.0	0.0				
		Yellow		4.0	4.0	0.0	0.0	0.0	0.0				
		Red		0.0	0.0	0.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		32.9		32.9				27.1
Change Period, ( $Y+R_c$ ), s		4.0		4.0				4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0				3.1
Queue Clearance Time ( $g_s$ ), s								20.1
Green Extension Time ( $g_e$ ), s		0.0		0.0				3.0
Phase Call Probability								1.00
Max Out Probability								0.67

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( $v$ ), veh/h		500	458	591	522					589	1121	266
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1845	1689	1725	1541					1789	1881	1304
Queue Service Time ( $g_s$ ), s		12.4	11.6	2.5	18.6					18.1	15.6	9.5
Cycle Queue Clearance Time ( $g_c$ ), s		12.4	11.6	14.9	18.6					18.1	15.6	9.5
Green Ratio ( $g/C$ )		0.48	0.48	0.48	0.48					0.39	0.39	0.39
Capacity ( $c$ ), veh/h		888	813	895	742					689	1450	502
Volume-to-Capacity Ratio ( $X$ )		0.563	0.563	0.660	0.704					0.855	0.773	0.530
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		113.7	103	143.1	133.7					193.5	152.5	62.1
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		4.4	4.1	5.7	5.3					7.7	6.1	2.4
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh		11.1	11.1	11.8	11.6					16.9	16.1	14.2
Incremental Delay ( $d_2$ ), s/veh		2.6	2.8	3.8	5.5					7.7	1.8	0.3
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( $d$ ), s/veh		13.6	13.9	15.6	17.2					24.6	17.9	14.6
Level of Service (LOS)		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	13.8	B		16.3	B		0.0			19.5	B	
Intersection Delay, s/veh / LOS	17.2						B					

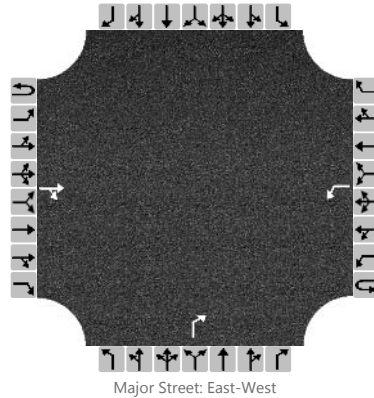
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A			1.6	A



# HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	PROJECT DRIVEWAY
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES
Date Performed	11-25-20	East/West Street	GARAGE ACCESS WAY
Analysis Year	2024	North/South Street	
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	MORRISON MIXED USE		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	0	0		0	0	1		0	0	0
Configuration				TR		L						R				
Volume, V (veh/h)			12	137		20						126				
Percent Heavy Vehicles (%)						0						0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

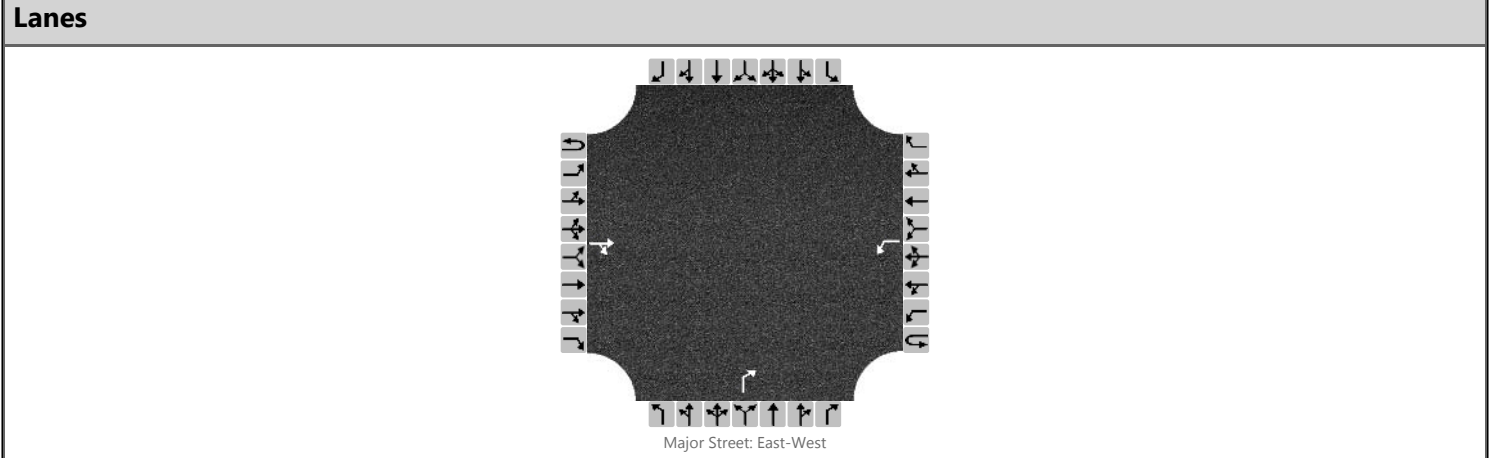
Base Critical Headway (sec)						4.1						6.2				
Critical Headway (sec)						4.10						6.20				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.20						3.30				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						22						137				
Capacity, c (veh/h)						1429						976				
v/c Ratio						0.02						0.14				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.5				
Control Delay (s/veh)						7.6						9.3				
Level of Service, LOS						A						A				
Approach Delay (s/veh)					7.6				9.3							
Approach LOS									A							

# HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	PROJECT DRIVEWAY
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES
Date Performed	11/25/2020	East/West Street	GARAGE ACCESS WAY
Analysis Year	2024	North/South Street	
Time Analyzed	pM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	MORRISON MIXED USE		



**Vehicle Volumes and Adjustments**

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	0	0		0	0	1		0	0	0
Configuration				TR		L						R				
Volume, V (veh/h)			8	249		39						187				
Percent Heavy Vehicles (%)						0						0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

**Critical and Follow-up Headways**

Base Critical Headway (sec)						4.1						6.2				
Critical Headway (sec)						4.10						6.20				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.20						3.30				

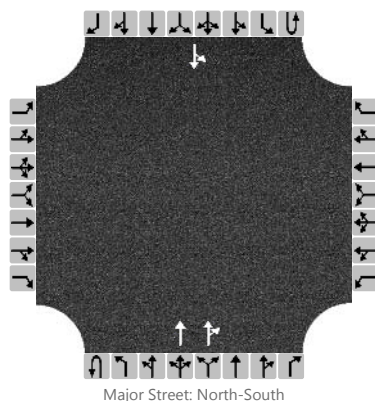
**Delay, Queue Length, and Level of Service**

Flow Rate, v (veh/h)						42						203				
Capacity, c (veh/h)						1294						909				
v/c Ratio						0.03						0.22				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.9				
Control Delay (s/veh)						7.9						10.1				
Level of Service, LOS						A						B				
Approach Delay (s/veh)					7.9				10.1							
Approach LOS									B							

# HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	Hope St & Dwy
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES
Date Performed	11/25/20	East/West Street	GARAGE ACCESS WAY
Analysis Year	2024	North/South Street	Hope Street
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	MORRISON MIXED USE		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR		LT		
Volume, V (veh/h)											580	151		0	389	
Percent Heavy Vehicles (%)														3		
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)														4.1		
Critical Headway (sec)														4.16		
Base Follow-Up Headway (sec)														2.2		
Follow-Up Headway (sec)														2.23		

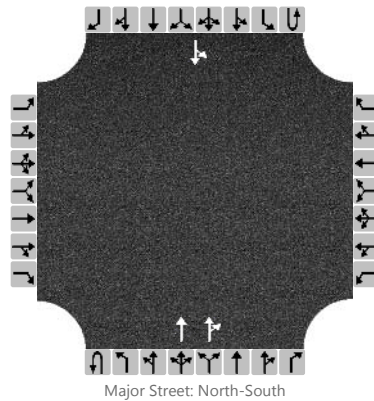
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)														0		
Capacity, c (veh/h)														817		
v/c Ratio														0.00		
95% Queue Length, Q <sub>95</sub> (veh)														0.0		
Control Delay (s/veh)														9.4		
Level of Service, LOS														A		
Approach Delay (s/veh)	0.0															
Approach LOS																

# HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LF			Intersection	Hope St & Dwy		
Agency/Co.	OVERLAND TRAFFIC			Jurisdiction	LOS ANGELES		
Date Performed	11/25/20			East/West Street	GARAGE ACCESS WAY		
Analysis Year	2024			North/South Street	Hope Street		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	MORRISON MIXED USE						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR			LT	
Volume, V (veh/h)											672	257			1	603
Percent Heavy Vehicles (%)															3	
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)															4.1	
Critical Headway (sec)															4.16	
Base Follow-Up Headway (sec)															2.2	
Follow-Up Headway (sec)															2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)															1	
Capacity, c (veh/h)															677	
v/c Ratio															0.00	
95% Queue Length, Q <sub>95</sub> (veh)															0.0	
Control Delay (s/veh)															10.3	
Level of Service, LOS															B	
Approach Delay (s/veh)													0.0			
Approach LOS																



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Morrison Mixed-Use Project  
1220-1246 South Hope Street & 427-435 Pico Boulevard  
Supplemental Transportation Assessment  
ADDED NEARBY RELATED PROJECT

(LADOT Case No: CEN 20-50464)

The Los Angeles Department of Transportation (LADOT) completed the review of the Draft Traffic Assessment dated September 2020 with corrections dated November 29, 2020 (Approved Traffic Assessment) including California Environmental Quality Act (CEQA) and Non-CEQA evaluation on June 10, 2021. The LADOT review letter was presented to the Department of City Planning on June 10, 2021. A copy of this letter is provided in Attachment A.

As the environmental documents are being finalized, a Department of City Planning representative has notified the developer team that there is a nearby related project at 1201-1215 South Grand Avenue & 410 West 12 Street (1201 South Grand Project) that was not included in the future conditions in the Approved Transportation Assessment for the 1220-1246 South Hope Street & 427-435 Pico Boulevard Project (Proposed Project). Per the LADOT Transportation Assessment Guidelines, July, 2020 page 2-3, related projects considered in the cumulative analysis should include known development projects within a one-half mile radius of the project site. The Approved Transportation Assessment may overstate potential future impacts with an extended cumulative analysis area which includes related projects up to 1.5 away. The analysis was conducted in this way in order to be consistent with other analysis that was conducted on the site. However, the 1201 South Grand Project is approximately 500 feet northeast of the Project site. Therefore, this supplement evaluates future traffic conditions that include the 1201 Grand Project. There is a 1201 Grand Project May 2020 Transportation Assessment conducted by Raju Associates that has been approved by LADOT. Information from this study has been used to add this project to the related projects.

The existing conditions and proposed Project do not change from what is presented in the Submitted Traffic Assessment. The following presents the CEQA and Non-CEQA evaluation of the future 2024 conditions.

## **CEQA Future Evaluation**

The Project description, access, circulation scheme, loading/unloading areas, and the future buildout year does not change. The CEQA Vehicle Miles Traveled (VMT) analysis does not change. As with the Project evaluated in the Approved Traffic Assessment, Project features include reduced parking supply and inclusion of bike parking per Los Angeles Municipal Code (LAMC). The results of the Household VMT per capita is 3.5 which is below the Central APC area threshold value of 6.0. The results of the Work VMT per employee is 6.7 which is below the Central APC area threshold value of 7.6.

The future Cumulative VMT impacts are evaluated through a consistency check with the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) plan. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets.

Per the TAG, projects that are consistent with the RTP/SCS plan in terms of development location and density are part of the regional solution for meeting air pollution and GHG goals. Projects that have less than a significant VMT impact are deemed to be consistent with the SCAG's 2016-2040 RTP/SCS and would have a less-than-significant cumulative impact on VMT.

The Project VMT impact would not exceed the City's Central APC VMT impact thresholds and as such, the Project's contribution to the cumulative VMT impact with the addition of the 1201 South Grand Project is adequate to demonstrate there is no cumulative VMT impact.

There are no changes to the CEQA analysis presented. However, minor changes to the Non-CEQA analysis occur in the Future Without and With Project Traffic Conditions at the four study intersections and driveways. Following is a presentation of these changes.

## **ADDITION OF 1201 S GRAND PROJECT TO FUTURE ANALYSIS**

The Project's Approved Traffic Assessment included a list of related projects for the future analysis. This Supplemental Traffic Assessment adds the 120 South Grand Project to the list of related projects and the related project map. The traffic volumes added to the study analysis based upon graphics presented in the 1201 South Grand Project approved Transportation Assessment. The updated related project list, related project map, 1201 South Grand Project traffic generated and added the traffic volumes at the study locations are provided in Attachment B. This Supplemental Analysis has been conducted evaluating future delay without and with the

Proposed Project (including the added related project) delay using Highway Capacity Software (HCS), which is consistent with LADOT requirements.

Analysis Findings

This Supplemental Traffic Assessment was conducted is based on the LADOT’s July 2020 TAG. Table 1 displays the delay findings of the analysis accounting for future 2024 traffic conditions from the Approved Transportation Assessment without the 1201 South Grand Project and the future 2024 traffic conditions with the 1201 South Grand Project as a related project.

Table 1  
Intersection HCS Summary for Future Without and With Project  
From the Approved Transportation Assessment &  
With the Added Related Project

No.	Intersection	Peak Hour	From Approved Traffic Assessment June 10, 2021 LADOT Letter				From Added Related Project Analysis			
			Future (2024) + Ambient Growth + Related Projects		Future (2024) + Ambient + Related + Proposed Project		Future (2024) + Ambient Growth + Related Projects		Future (2024) + Ambient + Related + Proposed Project	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	12th Street & Hope Street	AM	7.6	A	8.0	A	7.7	A	8.1	A
		PM	10.2	B	10.8	B	10.5	B	11.0	B
2	Hope Street & Pico Boulevard	AM	21.9	C	28.7	C	21.9	C	28.7	C
		PM	25.2	C	53.3	D	25.7	C	54.7	D
3	12th Street & Grand Avenue	AM	21.4	C	21.6	C	23.6	C	24.0	C
		PM	26.4	C	27.0	C	26.7	C	27.3	C
4	Grand Avenue & Pico Boulevard	AM	11.4	B	11.6	B	11.4	B	11.6	B
		PM	16.7	B	17.2	B	16.9	B	17.5	B

The Highway Capacity Software (HCS) worksheets for this analysis are provided in Attachment C. Figure 1 shows the future (2024) traffic volumes without the Project and Figure 2 displays the projected future (2024) traffic volumes with the Project.

Findings in Table 1 indicate that the delay increases mildly but the LOS does not change at any of the study intersections. Table 2, on the following page displays the delay findings of the analysis accounting for the added 1201 South Grand Avenue related project at the Project’s covered driveway and Hope Street and at the Project’s covered driveway and garage entry. Table 3, on the following page, displays the Project driveway queue lengths. The queue lengths do not change at the Project driveways.

Table 2  
HCS Summary  
Driveway HCS Summary With Project  
From the Approved Transportation Assessment &  
With the Added Related Project

No.	Intersection	Peak Hour	From Approved Traffic Assessment June 10, 2021 LADOT Letter			From Added Related Project Analysis		
			Direction	Future (2024) + Ambient + Related + Project		Direction	Future (2024) + Ambient + Related + Project	
				Delay (s)	LOS		Delay (s)	LOS
A	Project Driveway & Project Covered Driveway	AM	WB	7.6	A	WB	7.6	A
			NB	9.3	A	NB	9.3	A
		PM	WB	7.9	A	WB	7.9	A
			NB	10.1	B	NB	10.1	B
B	Hope Street & Project Covered Driveway	AM	SB	9.4	A	SB	9.4	A
		PM	SB	10.3	B	SB	10.3	B

Table 3  
Queue Length at Project Driveways  
From the Approved Transportation Assessment &  
With the Added Related Project

No.	Intersection	Peak Hour	From Approved Traffic Assessment TYPICAL QUEUE LENGTH		From Added Related Project Analysis TYPICAL QUEUE LENGTH	
			DIRECTION	# of Cars	DIRECTION	# of Cars
			A	Project driveway & Accessway	AM	WBL
NBR	1	NBR				1
PM	WBL	1			WBL	1
	NBR	1			NBR	1
B	Hope Street & Project Covered Driveway	AM	SBL	0	SBL	0
		PM	SBL	0	SBL	0

WBL = westbound left, NBR = northbound right, SBL = southbound left

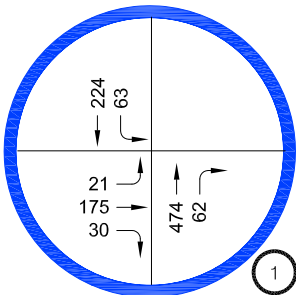
The results of the driveway queues do not change at all without and with the added related project.



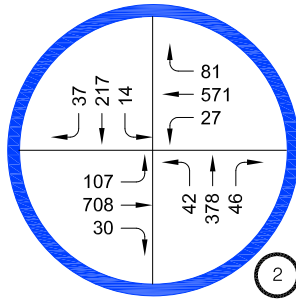
## **SUPPLEMENTAL TRAFFIC ANALYSIS SUMMARY**

Based on the LADOT TAG, CEQA and Non-CEQA, traffic conditions changed with adding the 1201 South Grand Project as a related project does not change any of the conclusions in the Project's Approved Transportation Assessment. Since there is no change to the Project itself, the CEQA analysis indicates no change to the Work or Household VMT results and lack of significant impacts. The cumulative CEQA impacts do not change.

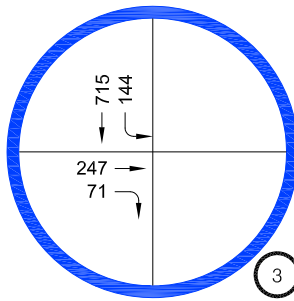
The Non-CEQA analysis indicates slight increase in delay at some intersections but does not change the LOS at the study intersections and driveways. The conclusions of the Approved Transportation Assessment do not change with the extension of the build out year to 2024.



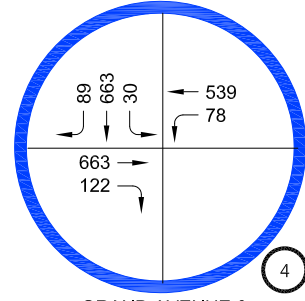
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

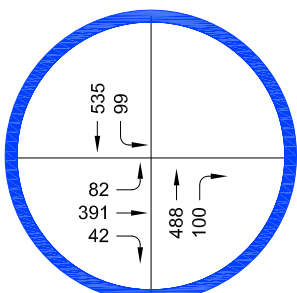
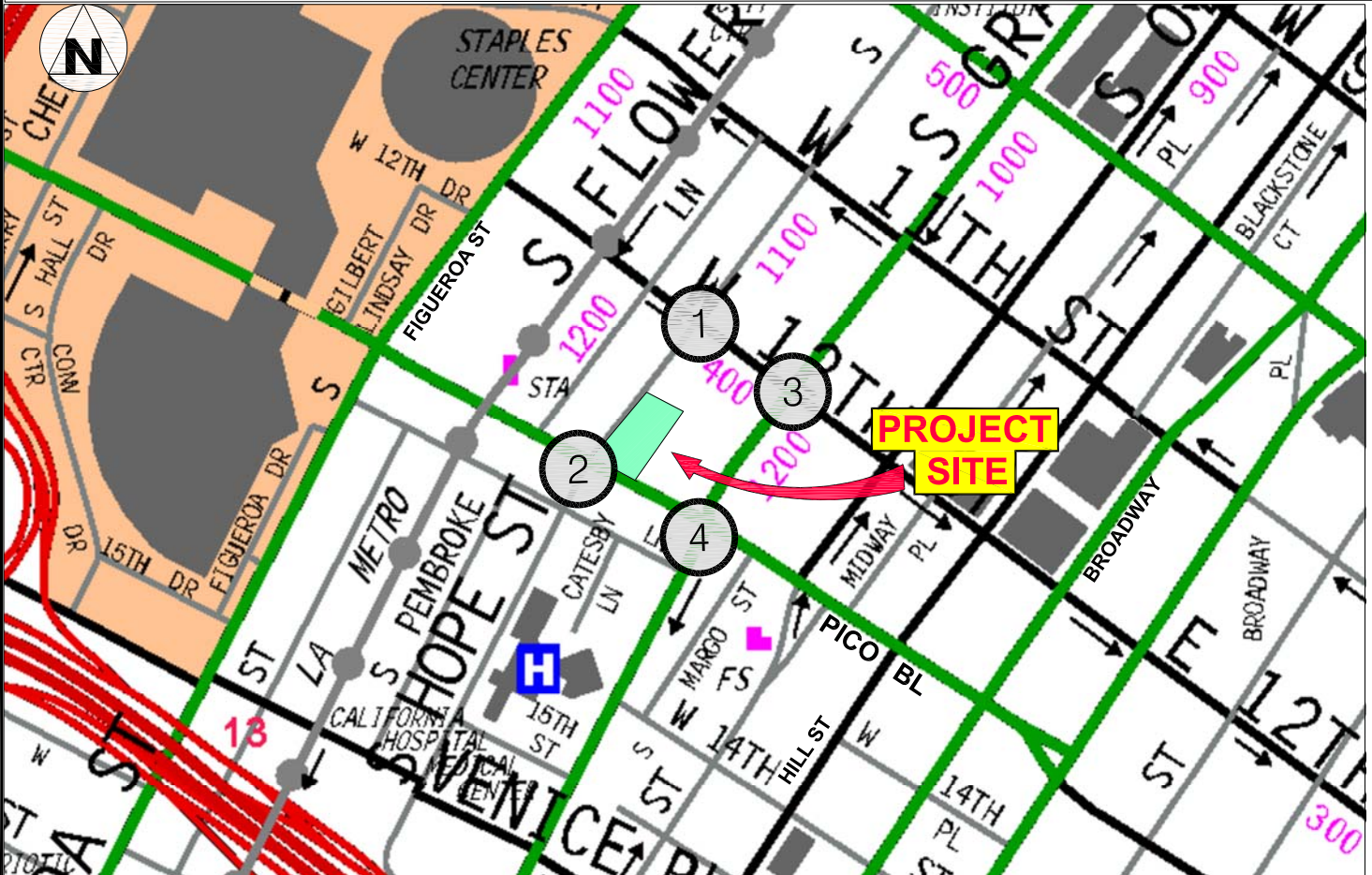


GRAND AVENUE & 12TH STREET

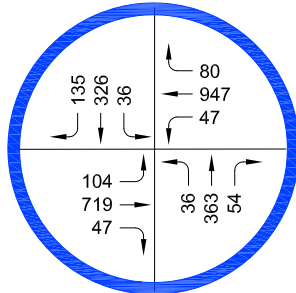


GRAND AVENUE & PICO BOULEVARD

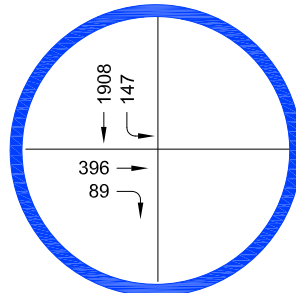
AM PEAK HOUR



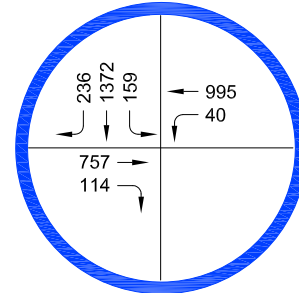
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



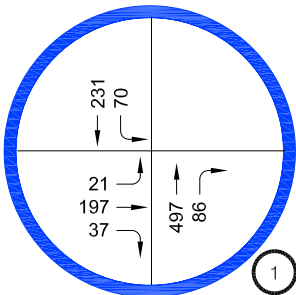
GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

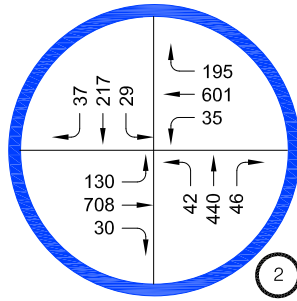
**UPDATED FUTURE (2024)  
WITHOUT PROJECT  
TRAFFIC VOLUMES**

FIGURE 1

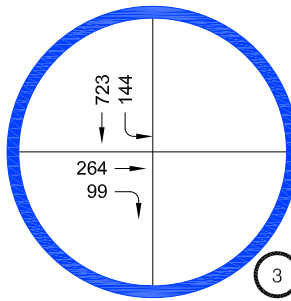
**Overland Traffic Consultants, Inc.**  
952 Manhattan Beach Bl #100, Manhattan Beach Ca 90266  
(310)545-1235, (661)799-8423, liz@overlandtraffic.com



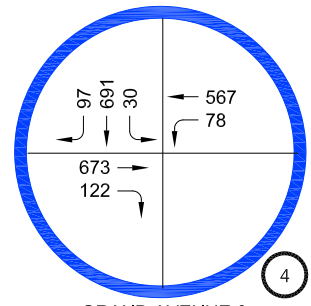
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD

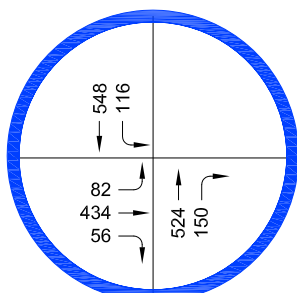
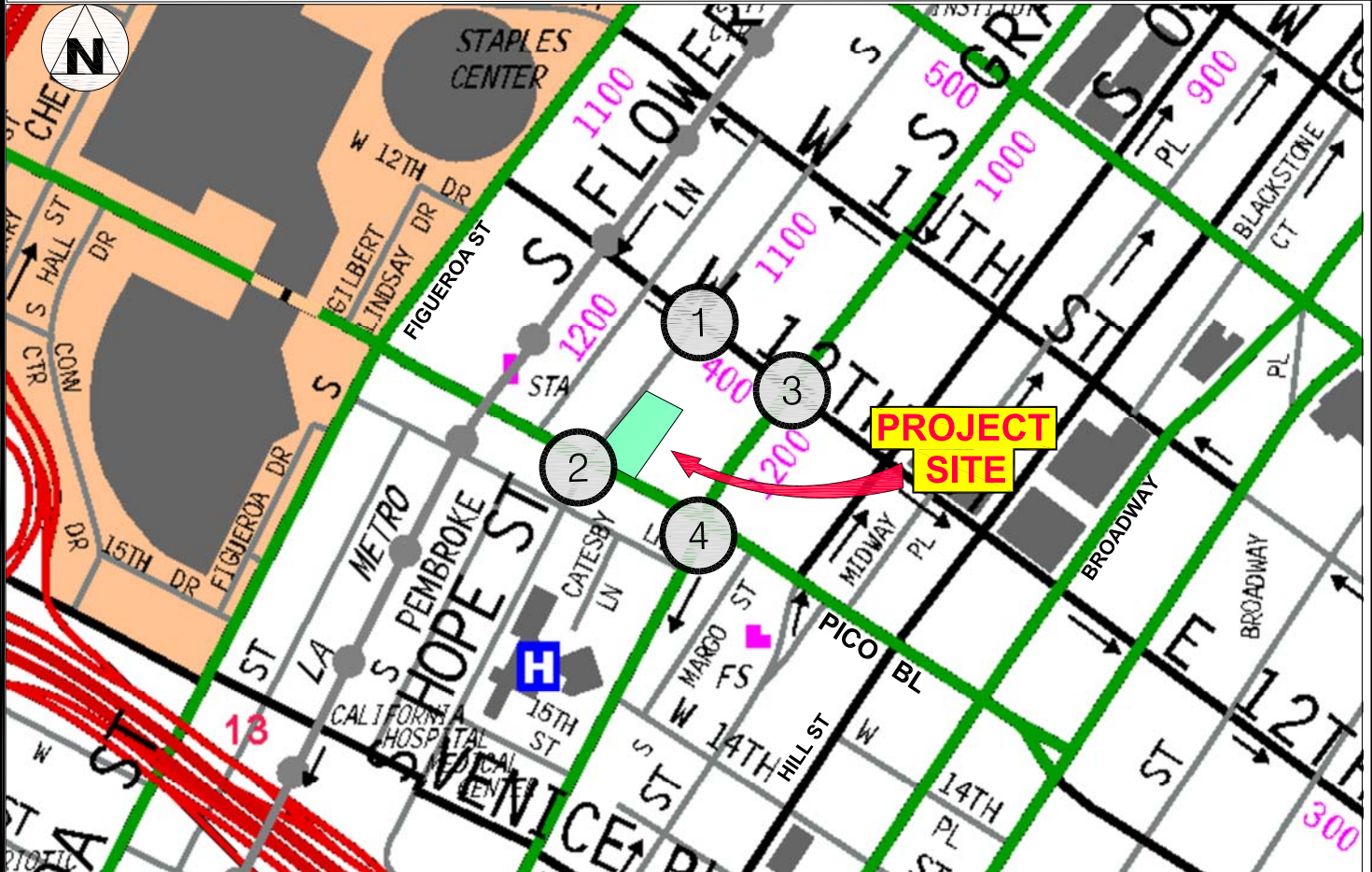


GRAND AVENUE & 12TH STREET

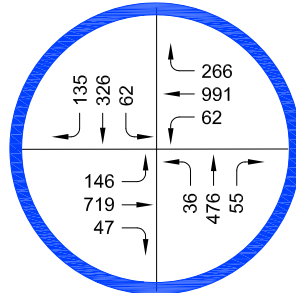


GRAND AVENUE & PICO BOULEVARD

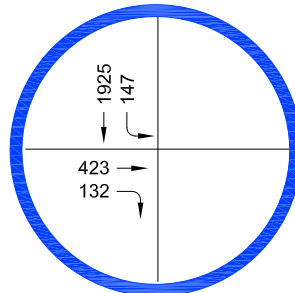
AM PEAK HOUR



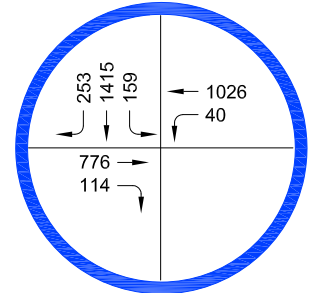
HOPE STREET & 12TH STREET



HOPE STREET & PICO BOULEVARD



GRAND AVENUE & 12TH STREET



GRAND AVENUE & PICO BOULEVARD

PM PEAK HOUR

UPDATED FUTURE (2024)  
WITH PROJECT  
TRAFFIC VOLUMES

FIGURE 2



Overland Traffic Consultants, Inc.

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(310)545-1235, (661)799-8423, liz@overlandtraffic.com

ATTACHMENT A

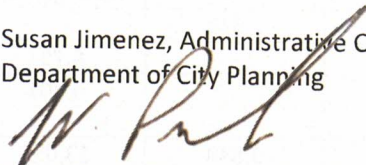
LADOT TRANSPORTATION ASSESSMENT  
REVIEW LETTER  
DATED JUNE 10, 2021

**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

1220-1246 S Hope St  
DOT Case No. CEN20-50464

Date: June 10, 2021

To: Susan Jimenez, Administrative Clerk  
Department of City Planning

From:   
Wes Pringle, Transportation Engineer  
Department of Transportation

Subject: **UPDATED TRANSPORTATION ASSESSMENT FOR THE PROPOSED MORRISON HOTEL MIXED-USE DEVELOPMENT AT 1220-1246 SOUTH HOPE STREET AND 427-435 WEST PICO BOULEVARD (ZA-2018-2293-MCUP-CUX-ZV-DD-SPR/ENV-2018-2294-EIR)**

*On February 21, 2019, the Los Angeles Department of Transportation (LADOT) issued a traffic assessment report to the Department of City Planning (City Planning) for the Morrison Hotel Mixed-Use Development at 1220 South Hope Street, which was subject of a transportation analysis prepared by Overland Traffic Consultants, Inc. (OTC) dated December 2018. However, since the report was released, supplemental transportation analyses dated September 2020 (revised November 2020) and December 2020 were prepared and submitted by OTC. The supplemental analyses address the revised project with a 2024 completion year and includes a freeway off-ramp evaluation and a vehicle miles traveled (VMT) analysis pursuant to the City of Los Angeles adoption of VMT as the criteria by which to determine transportation impacts under CEQA Senate Bill (SB) 743 and due to the recent changes to Section 15064.3 of the State's California Environmental Quality Act (CEQA) Guidelines. Please replace the previous LADOT assessment report dated February 21, 2019, in its entirety, with this report, which addresses the totality of the transportation analysis.*

-----

The LADOT has reviewed the transportation analyses prepared by OTC, dated September 2020 (revised November 2020) and December 2020, for the proposed Morrison Hotel Mixed-Use Development on the northeast corner of Hope Street and Pico Boulevard at 1220-1246 South Hope Street and 427-435 West Pico Boulevard in the Central Area Planning Commission Area (APC). In compliance with SB 743 and the CEQA guidelines, a VMT analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, the 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 LADOT's Transportation Assessment Guidelines (TAG), as described below.

#### **DISCUSSION AND FINDINGS**

##### **A. Project Description**

The project proposes to renovate the existing four-story Morrison Hotel and construct a 15-story expansion to the hotel and a hotel/residential tower of varying heights of three to 25 stories on approximately 2.6 acres bounded by Hope Street to the west, an alley extending between Pico Boulevard and 12<sup>th</sup> Street to the east, Pico Boulevard to the south, and neighboring businesses to the north as illustrated in **Attachment A**. The development includes a total of 444 hotel rooms, 136 residential units, 9,848 square feet (sf) of restaurant uses, 13,052 sf of rooftop and lobby restaurant/bar lounge uses, and 11,091 sf of immersive museum.

Morrison MU	Residential Units	Hotel Rooms	Restaurant (sf)		Museum (sf)
			High-Turnover	Quality (Lounge/Bar)	
Morrison Hotel	-	87	9,848	-	-
Hotel Expansion	-	357	-	8,751	11,091
Hotel (Lobby)/ Residential Tower	136	-	-	4,301	-
Total	136	444	9,848	13,052	11,091

The project will provide parking for 222 vehicles and 216 bicycles in three subterranean levels extending the full project site length with access from a garage entry off an east-west partially covered driveway aisle along the north end of the project site. The driveway aisle will be accessible from an ingress driveway on Hope Street and from the adjacent north-south alley. Valet service for residents would be available along this driveway aisle for drop off and pick up. An entry courtyard will connect the three buildings and provide dining space and access to the valet/passenger loading zone (PLZ) on Hope Street for guests of the hotel, restaurants/lounges, and museum. For valet service, a vehicle would be dropped off at the Hope Street PLZ and then would be picked up at either three locations: along the alley for hotel guests, along the alley near Pico Boulevard for museum guests, or along the Hope Street PLZ for the restaurant/lounge guests. Two on-site loading docks will also be accessed via the north-south alley. The project is expected to be completed by 2024.

B. Freeway Safety Analysis

Per the Interim Guidance for Freeway Safety Analysis memorandum issued by LADOT on May 1, 2020 to address Caltrans safety concerns on freeways, the study addresses the project's effects on vehicle queuing on freeway off-ramps. Such an evaluation measures the project's potential to lengthen a forecasted off-ramp queue and create speed differentials between vehicles exiting the freeway off-ramps and vehicles operating on the freeway mainline.

The evaluation identified the number of project trips expected to be added to nearby freeway off-ramps serving the project site. It was determined that project traffic at any freeway off-ramp will not exceed 25 peak hour trips. Therefore, a freeway ramp analysis is not required.

C. 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 the net 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, 9<sup>th</sup> 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 **does** exceed the net 250 daily vehicle trips threshold.

Additionally, the analysis included further discussion of the transportation impact thresholds:

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

The assessment determined that the project would **not** have a significant transportation impact under Thresholds T-1 and T-3. A project's impact per Threshold T-2.1 is determined by using the VMT calculator and is discussed further below. A copy of the VMT Calculator summary report is provided as **Attachment B**.

D. Transportation Impacts

On July 30, 2019, pursuant to SB 743 and the recent changes to Section 15064.3 of the State's CEQA Guidelines, the City of Los Angeles adopted VMT as criteria in determining transportation impacts under CEQA. The LADOT TAG provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds.

The LADOT VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work VMT per Employee. LADOT identified distinct thresholds for significant VMT impacts for each of the seven APC areas in the City. For the Central APC area, in which the project is located, the following thresholds have been established:

- Household VMT per Capita: 6.0
- Work VMT per Employee: 7.6

As cited in the VMT Analysis report prepared by OTC, the project proposes to incorporate the TDM strategies of reduced parking supply by providing 222 of the Code-required 349 parking spaces and include bike parking per Los Angeles Municipal Code (LAMC) as project design features. With the application of these TDM measures, the proposed project is projected to have a Household VMT impact of 3.5 and Work VMT per employee of 6.7. Therefore, it is concluded that implementation of the project would result in no significant VMT impact. A copy of the VMT Calculator summary report is provided as **Attachment B**.

E. 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 LAMC. Therefore, LADOT 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.

As illustrated in **Attachment A**, the project will be accessed via an ingress driveway on Hope Street and the adjacent north-south alley. Additionally, the project will provide valet services at four locations: full-service along the partially covered driveway aisle for residents; drop-off along the Hope Street PLZ for guests of the hotel, museum, and restaurants/lounges; pick-up along the alley for hotel guests; pick-up near the alley and Pico Boulevard for museum guests; and pick-up along the Hope Street PLZ for the restaurant/lounge guests.

In accordance with this authority, the project completed a circulation analysis using a “level of service” screening methodology that indicates that the trips generated by the proposed development may result in an increase in delay at Hope Street and Pico Boulevard during the PM peak hour. LADOT recommends that the circulation and operations be monitored and reviewed once the development is completed and occupied to determine if any changes can be implemented in order to improve operating conditions. LADOT 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 **Attachment C** to this report.

## PROJECT REQUIREMENTS

### Non-CEQA Related 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

The project would provide 222 vehicle and 216 bicycle parking spaces on-site. The applicant should check with the Departments of Building and Safety and City Planning on the number of parking spaces required for this project.

2. Highway Dedication and Street Widening Requirements

Per the Mobility Element of the General Plan, **Hope Street**, an Avenue II, would require a 28-foot half-width roadway within a 43-foot half-width right-of-way and **Pico Boulevard**, an Avenue I, would require a 35-foot half-width roadway within a 50-foot half-width right-of-way. The applicant should check with Bureau of Engineering’s Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

3. Project Access and Circulation

The conceptual site plan is acceptable to LADOT; however, the review of this study does not constitute approval of the driveway dimensions, access and circulation scheme. As illustrated in **Attachment A**, the project will be accessed via an ingress driveway on Hope Street and the adjacent north-south alley. Additionally, the project will provide valet services at four locations: full-service along the partially covered driveway aisle for residents; drop-off along the Hope Street PLZ for guests of the hotel, museum, and restaurants/lounges; pick-up along the alley for hotel guests; pick-up near the alley and Pico Boulevard for museum guests; and pick-up along the Hope Street PLZ for the restaurant/lounge guests. Two on-site loading docks will also be accessed via the north-south alley. Any changes to the project’s site access, circulation scheme, or loading/unloading area after issuance of this report would require separate review and approval and should be coordinated as soon as possible with LADOT’s Citywide Planning Coordination Section (201 North Figueroa Street, 5th Floor, Room 550, at 213-482-7024). The applicant should check with City Planning regarding the project’s driveway placement and design.

The PLZ on Hope Street would require the permanent removal of metered parking spaces and payment to LADOT for lost parking meter revenues or Meter Revenue Recovery (MRR) fee. The MRR fee is based on the revenue collected over twelve continuous months for each removed parking meter projected over a ten-year period, as determined by LADOT’s Parking Meters



Division. The project applicant would also be subject to any costs incurred by DOT during the removal of each parking meter. Per the 2013 Valet Ordinance No. 182742, the applicant should coordinate with the LADOT Parking Meters Division, the LAPD Commissioners Investigation Division, the Office of Finance, and other applicable City departments on the approval of the main valet on Hope Street in order to obtain a valet parking operator (VPO) permit from the LAPD Commissions Office. Review and approval of the PLZ should be coordinated with LADOT's Parking Meters Division, 555 Ramirez Street, Space 315 at 213-473-8270.

4. Worksite Traffic Control Requirements

LADOT recommends that a construction work site traffic control plan be submitted to LADOT'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/businesses/temporary-traffic-control-plans> 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. LADOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

5. TDM Ordinance Requirements

The TDM Ordinance (LAMC 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods,
- Rely on a broader range of strategies that can be updated to keep pace with technology, and
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although not yet adopted, LADOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected in 2021, if applicable. The updated ordinance is expected to be completed prior to the anticipated construction of this project, if approved.

6. 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 Eileen Hunt of my staff at (213) 972-8481.

Attachments

K:\Letters\2021\CEN20-50464\_1220 Hope\_Morrison Hotel MU\_vmt update.docx

c: Emma Howard, Council District 14  
Matthew Masuda, Central District, BOE  
Edward Yu, Central District, DOT  
Justin Kim, Parking Meters Division, DOT  
Taimour Tanavoli, Case Management, DOT  
Liz Fleming, OTC



FIGURE 2a

9/2020

**PROJECT Layout with Outdoor Dining**

 **Overland Traffic Consultants, Inc.**  
952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
(310) 545-1235 phone, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project:

Scenario:

Address:



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

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
Retail   Quality Restaurant	13,052	ksf
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   High-Turnover Sit-Down Restaurant	9,848	ksf
Retail   Movie Theater	500	Seats
Retail   Quality Restaurant	13,052	ksf

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

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	4,193 Daily Vehicle Trips
0 Daily VMT	25,831 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	4,193 Net Daily Trips
The net increase in daily VMT ≤ 0	25,831 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	522,900 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



## Project Information

Project: Morrison Project VMT Version 1.3  
 Scenario:   
 Address: 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   High-Turnover Sit-Down Restaurant	9.848	ksf
Retail   Movie Theater	500	Seats
Retail   Quality Restaurant	13.052	ksf

## TDM Strategies

Select each section to show individual strategies  
 Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No
<b>A</b> Parking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B</b> Transit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>C</b> Education & Encouragement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>D</b> Commute Trip Reductions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E</b> Shared Mobility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F</b> Bicycle Infrastructure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>G</b> Neighborhood Enhancement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Traffic Calming Improvements	<input checked="" type="checkbox"/> 25 percent of streets within project with traffic calming improvements	<input checked="" type="checkbox"/> 25 percent of intersections within project with traffic calming improvements
Pedestrian Network Improvements	<input checked="" type="checkbox"/> within project and connecting off-site	

## Analysis Results

Proposed Project	With Mitigation
<b>3,645</b> Daily Vehicle Trips	<b>3,645</b> Daily Vehicle Trips
<b>22,460</b> Daily VMT	<b>22,460</b> Daily VMT
<b>3.5</b> Household VMT per Capita	<b>3.5</b> Household VMT per Capita
<b>6.7</b> Work VMT per Employee	<b>6.7</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information		
Land Use Type	Value	Units
<b>Housing</b>	Single Family	0
	<b>Multi Family</b>	<b>136</b>
	Townhouse	0
	<b>Hotel</b>	<b>444</b>
	Motel	0
<b>Affordable Housing</b>	Family	0
	Senior	0
	Special Needs	0
	Permanent Supportive	0
<b>Retail</b>	General Retail	0.000
	Furniture Store	0.000
	Pharmacy/Drugstore	0.000
	Supermarket	0.000
	Bank	0.000
	Health Club	0.000
	<b>High-Turnover Sit-Down Restaurant</b>	<b>9.848</b>
	Fast-Food Restaurant	0.000
	<b>Quality Restaurant</b>	<b>13.052</b>
	Auto Repair	0.000
	Home Improvement	0.000
	Free-Standing Discount	0.000
	<b>Movie Theater</b>	<b>500</b>
	<b>Office</b>	General Office
Medical Office		0.000
<b>Industrial</b>	Light Industrial	0.000
	Manufacturing	0.000
	Warehousing/Self-Storage	0.000
<b>School</b>	University	0
	High School	0
	Middle School	0
	Elementary	0
<b>Other</b>	Private School (K-12)	0
		0

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 324			
Total Population: 306			
<b>Proposed Project</b>		<b>With Mitigation</b>	
3,645	Daily Vehicle Trips	3,645	Daily Vehicle Trips
22,460	Daily VMT	22,460	Daily VMT
3.5	Household VMT per Capita	3.5	Household VMT per Capita
6.7	Work VMT per Employee	6.7	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
Parking	Reduce parking supply	City code parking provision (spaces)	349	349
		Actual parking provision (spaces)	222	222
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
	Parking cash-out	Employees eligible (%)	0%	0%
		Daily parking charge (\$)	\$0.00	\$0.00
	Price workplace parking	Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
(cont. on following page)				



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Commuter Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 24, 2021  
 Project Name: Morrison Project VMT Version 1.3  
 Project Scenario:  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

TDM Adjustments by Trip Purpose & Strategy														
Place type: Compact Infill														
		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 24, 2021  
 Project Name: Morrison Project VMT Version 1.3  
 Project Scenario:  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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
<b>COMBINED TOTAL</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
<b>MAX. TDM EFFECT</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

$$= \text{Minimum} (X\%, 1-[(1-A)*(1-B)...])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	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: May 24, 2021

Project Name: Morrison Project VMT Version 1.3

Project Scenario:

Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	122	-29.5%	86	6.5	793	559
Home Based Other Production	338	-54.1%	155	4.4	1,487	682
Non-Home Based Other Production	960	-9.8%	866	7.2	6,912	6,235
Home-Based Work Attraction	469	-33.7%	311	8.0	3,752	2,488
Home-Based Other Attraction	4,079	-50.5%	2,020	5.5	22,435	11,110
Non-Home Based Other Attraction	840	-10.1%	755	6.3	5,292	4,757

### 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	-13.0%	75	486	-13.0%	75	486
Home Based Other Production	-13.0%	135	593	-13.0%	135	593
Non-Home Based Other Production	-13.0%	753	5,422	-13.0%	753	5,422
Home-Based Work Attraction	-13.0%	270	2,163	-13.0%	270	2,163
Home-Based Other Attraction	-13.0%	1,756	9,660	-13.0%	1,756	9,660
Non-Home Based Other Attraction	-13.0%	656	4,136	-13.0%	656	4,136

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 306

Total Employees: 324

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	1,079	1,079
Total Home Based Work Attraction VMT	2,163	2,163
Total Home Based VMT Per Capita	3.5	3.5
Total Work Based VMT Per Employee	6.7	6.7

Table 1  
HCS Summary Future 2023 and 2024 without & with Project

No.	Intersection	Peak Hour	From Submitted Traffic Assessment				Future (2024) + Ambient Growth + Related Projects		Future (2024) + Ambient + Related + Project	
			Future (2023) + Ambient Growth + Related Projects		Future (2023) + Ambient + Related + Project		Delay (s)	LOS	Delay (s)	LOS
			Delay (s)	LOS	Delay (s)	LOS				
1	12th Street & Hope Street	AM	7.5	A	7.8	A	7.6	A	8.0	A
		PM	10.2	B	10.8	B	10.2	B	10.8	B
2	Hope Street & Pico Boulevard	AM	21.0	C	22.8	C	21.9	C	28.7	C
		PM	24.8	C	49.7	D	25.2	C	53.3	D
3	12th Street & Grand Avenue	AM	21.0	C	21.2	C	21.4	C	21.6	C
		PM	25.6	C	26.1	C	26.4	C	27.0	C
4	Grand Avenue & Pico Boulevard	AM	11.4	B	11.6	B	11.4	B	11.6	B
		PM	16.3	B	16.8	B	16.7	B	17.2	B

Table 2  
HCS Summary  
Future 2023 and 2024 at Project Driveways

No.	Intersection	Peak Hour	From Submitted Traffic Assessment			Direction	Future (2024) + Ambient + Related + Project	
			Direction	Future (2023) + Ambient + Related + Project			Delay (s)	LOS
				Delay (s)	LOS			
A	Project Driveway & Project Covered Driveway	AM	WB	7.6	A	WB	7.6	A
			NB	9.3	A	NB	9.3	A
		PM	WB	7.9	A	WB	7.9	A
			NB	10.1	B	NB	10.1	B
B	Hope Street & Project Covered Driveway	AM	SB	8.2	A	SB	9.4	A
		PM	SB	10.3	B	SB	10.3	B

Table 3  
Queue Length  
Future 2024 at Project Driveways

No.	Intersection	Peak Hour	TYPICAL QUEUE LENGTH	
			DIRECTION	# of Cars
A	Project driveway & Accessway	AM	WBL	0
			NBR	1
B	Hope Street & Project Covered Driveway	AM	WBL	1
			NBR	1
		PM	SBL	0
			SBL	0

WBL = Westbound Left  
NBR = Northbound Right  
SBL = Southbound Left

## ATTACHMENT B

### RELATED PROJECT INFORMATION

Including List of Projects  
Map of Location of Related Projects  
1201 S Grand Project Trip Generation  
1201 S. Grand Project Trips at Study Intersections



No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	1550 W 8th St	33,957 sf	Office	230	29	4	33	6	26	32
2.	237 S Los Angeles	43,453 sf	Sports complex	1,869	79	50	129	161	98	259
3.	146 W 11th St	20 units	Apartment							
		32,670 sf	Office							
		37,600 sf	Retail							
		565 units	Condominium							
			Total	5,563	248	98	346	166	399	565
4.	939 S Flower St	112 units	Apartment							
		95,700 sf	FIDM Campus Expansion	745	11	46	57	45	25	69
5.	1420 S Bonnie Brae St	26 units	Apartments	193	3	12	15	12	6	18
6.	225 S Los Angeles St	300 units	Condominium							
		3,400 sf	Retail							
			Total	1,910	57	167	224	80	46	126
7.	1301 W Colton Street	29 units	Apartment	193	3	12	15	12	6	18
8.	1360 S Figueroa St	622 units	Condominium	2,210	29	151	180	135	65	200
9.	2300 S Flower St	1,500 units	Apartment							
		40,000 sf	Retail							
			Total	8,757	121	308	429	264	168	432
10.	300 S Santa Fe Av	420 units	Apartment							
		45,000 sf	Retail							
		7,500 sf	Fast Food Restaurant							
		7,500 sf	Quality Restaurant							
			Total	8,741	170	394	564	447	291	738
11.	1133 S Hope St	159 units	Condominium							
		6,827 sf	Restaurant							
			Total	1,063	14	37	51	60	32	92
12.	745 S Spring St	247 units	Condominium							
		10,675 sf	Retail							
			Total	2,841	33	99	132	162	94	256
13.	905 E 2nd St	302 units	Condominium							
		22,335 sf	Retail							
			Total	1,248	16	46	62	60	34	94
14.	503 S Olive	900 units	Condominium							
		19,000 sf	Retail							
		19,200 sf	Restaurant							
			Total	1,284	16	43	59	73	42	115
15.	1115 S Hill St	172 units	Condominium							
		6,850 sf	Restaurant							
			Total	543	-1	-4	-5	28	15	43
16.	810 E Pico Bl	131 units	Condominium	619	7	37	44	36	18	54
17.	1600 W Olympic Bl	8 fp	Gas Station/Mini Market Add	1,302	41	41	81	54	54	107
18.	2455 S Figueroa St	145 units	Apartment	870	13	51	64	53	29	82
19.	609 W 8th St	225 units	Condominium							
		200 room	Hotel							
		30,000 sf	Retail							
		32,000 sf	Restaurant							
			Total	4,908	62	132	194	249	152	401

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
20.	1340 S Olive St	156 units 5,000 sf 10,000 sf	Apartment Retail Restaurant Total	1,700	51	82	133	89	57	146
21.	800 E 12th St	320,497 sf -1,458 sf -23,488 sf	Manufacturing Restaurant Manufacturing Total	962	126	95	221	108	170	278
22.	955 S Broadway	218 units 7,000 sf	Apartment Retail Total	1,275	21	72	93	74	43	117
23.	1346 W Court Street	43 units	Apartment	286	4	18	22	17	10	27
24.	1130 W Wilshire Bl	86,844 sf	Office	530	82	21	103	17	66	83
25.	425 S Union Av	33 units	Apartment	213	3	13	16	13	7	20
26.	848 S Grand	420 units 38,500 sf	Residential Market Total	3,882	66	144	210	212	165	377
27.	1430 W Beverly Bl	157 units	Apartment	780	12	48	60	47	26	73
28.	250 S Hill	330 units 12,000 sf	Condominium Retail/Restaurant Total	1,217	21	73	94	96	42	108
29.	220 E Washington Bl	357 units 19,000 sf	Apartment Retail/Restaurant Total	5,319	114	290	404	285	181	466
30.	2100 S Figueroa St	291 units 7,134 sf	Condominium Retail Total	870	-3	-13	-16	25	14	39
31.	1239 W Wilshire Bl	56,450 sf	Medical Office	2,040	111	29	140	59	151	210
32.	1111 Wilshire Bl	450 students	School Relocation	492	119	76	195	26	34	60
33.	1110 W 11th Street		Convention Center Modernization & Farmers Field Stadium							
		76,250 seats 143,500 sf 102,150 room	Event Center Event Meeting Space Total	15,523	117	3	120	9,777	225	1,002
34.	1435 W 3rd St	122 units 5,000 sf	Apartment Retail Total	769	16	39	55	43	27	70
35.	333 S Alameda Av	40,800 sf	Bowling Alley	1,360	77	51	128	42	28	70
36.	1500 S Figueroa St	190 units 10 units 10,922 sf	Apartment Live/Work Retail Total	1,199	17	68	85	73	38	111
37.	754 S Hope St	409 units 7,329 sf	Apartment Retail Total	2,315	35	137	172	137	78	215
38.	845 S Figueroa	21,122 sf	Discount Supermarket	972	20	13	32	46	44	90

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
39.	150 N Figueroa St	712,500 sf 35,000 sf 2,500 sf	Office Retail Child Care Total	13,534	860	188	1,048	240	1,134	1,374
40.	1027 S Olive	100 units	Apartment	632	9	39	48	38	21	59
41.	1306 S Hope	419 units	Apartment	4,280	88	105	193	136	102	138
42.	928 S Broadway	42,200 sf 662 units 47,000 sf 11 units 34,824 sf	Retail Apartment Retail Live/Work Office Total	4,715	21	229	250	272	109	381
43.	1200 S Grand Av	640 units 45,000 sf	Apartment Retail Total	4,886	92	148	240	181	134	315
44.	1501 W Wilshire Bl	217 units 2,400 sf 4,450 sf	Apartment Retail Restaurant Total	1,163	-11	158	7	38	23	61
45.	1329 W 7th St	94 units 2,000 sf	Apartment Retail Total	662	15	38	53	37	24	61
46.	534 S Main St complete - not fully occupied	160 units 18,000 sf 3,500 sf 3,500 sf	Apartment Retail Restaurant Fast Food Total	2,213	52	75	127	87	58	145
47.	840-860 S Olive	303 units 8,680 sf	Condominium Restaurant Total	3,071	81	166	247	174	96	2,710
48.	710 S Grand Av	700 units 27,000 sf 5,000 sf	Apartment Retail Restaurant Total	5,245	88	185	273	275	202	477
49.	950 E 3rd St	400 student 39,900 sf 188,325 sf 408 units	Sci Art School Office Retail Apartment Total	8,070	447	219	666	314	493	809
50.	619 S Westlake	52 units	Apartment	254	4	16	20	15	9	24
51.	1552 W Rockwood St	600 student	High School (credit for 182 student High School)	715	110	70	180	23	31	54
52.	899 S Francisco St	836 units 988,225 sf 480 room 46,000 sf	Condominium Office Hotel Retail/Restaurant Total	8,010	288	337	625	475	242	899

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
53.	920 S Hill Street	239 units 5,400 sf	Condominium Retail Total	1,311	21	76	97	78	44	122
54.	237 S Grand Av	265 units 5,020 sf	Apartment Restaurant Total	1,918	29	106	136	112	66	178
55.	2051 E 7th St	182 units 3,000 sf	Condominium Retail Total	242	6	23	29	16	4	20
56.	920 N Vignes		MTA Bus Facility	1,927	36	36	72	38	37	75
57.	201 S Broadway	27,765 sf	Retail/Restaurant	1,186	17	10	27	50	54	104
58.	454 E Commercial St	87,120 sf	Bus Maintenance	155	22	8	30	8	1	9
59.	1219 S Hope Street	75 rooms	Hotel	613	24	16	40	23	22	45
60.	902 W Washington Bl	142 units	Condominium	482	2	25	27	35	16	51
61.	900 W Wilshire Blvd		Mixed use/Redevelopment	3,624	725	75	800	94	764	858
62.	150 N Los Angeles St LA Civic Center	712,500 sf 35,000 sf 2,500 sf	Office Retail Other Total	13,534	930	118	1,048	435	942	1,374
63.	1700 W Olympic Bl	160 Rooms	Hotel	1,157	44	32	76	45	42	87
64.	233 W Washington Bl	160 units 24,000 sf	Apartment Retail	1,764	25	56	81	89	71	160
65.	400 S Broadway	450 units 7,500 sf 5,000 sf	Apartment Retail Other Total	2,266	36	147	183	139	73	212
66.	1001 Olive Street	1,367 units 20,000 sf 20,000 sf	Apartment Retail Restaurant	8,063	116	510	626	503	209	712
67.	1525 E. Industrial St	240 units 7,165 sf 4,110 sf	Apartment Retail Other Total	1,729	37	59	96	69	44	113
68.	1000 S Grand Av	274 units 12,000 sf	Apartment Commercial Total	2,216	27	94	121	130	69	199
69.	801 S Olive St	331 units 10,000 sf	Apartment Other Total	2,557	33	129	162	140	83	223
70.	1212 W Flower St	730 units 10,500 sf 70,465 sf	Condominium Retail Office	3,956	78	233	311	229	121	350
71.	600 S San Pedro St	303 units 16,773 sf 3,136 sf	Apartments Office Retail	636	38	25	63	30	37	67

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
72.	820 S Olive St	589 units 4,500 sf	Apartment Retail Total	3,309	63	202	265	195	106	301
73.	601 S Main St	452 units 25,000 sf	Condominium Retail Total	2,686	36	144	180	152	87	239
74.	1111 S Broadway	391 units 39,725 sf 49,000 sf	Apartment Office Retail	5,198	144	176	320	258	274	532
75.	1148 S Broadway	94 units 2,500 sf	Apartment Retail	553	8	30	38	32	18	50
76.	1120 S Grand Ave	666 units 300 Rooms 8,700 sf	Apartment Hotel Retail	2,730	42	127	169	136	93	229
77.	1230 S Olive St	362 units 4,000 sf	Apartment Retail Total	2,114	31	126	157	127	69	196
78.	1247 Grand Av.	118 units 5,125 sf	Apartment Retail Total	763	10	41	51	42	25	67
79.	1400 S Figueroa St	106 units 4,834 sf	Apartment Retail	647	10	38	48	39	22	61
80.	940 S Figueroa St	10,056 sf 5,119 sf 1,942 seats	Office Restaurant Theatre	2,237	5	4	9	99	35	134
81.	527 N Spring St	LA County Project	La Plaza Cultura	3,585	49	118	167	189	131	320
82.	1036 S Grand Av	7,149 sf	Restaurant	492	2	3	5	27	14	41
83.	963 E 4th St.	78,600 sf 25,000 sf 20,000 sf	Office Retail Restaurant Total	2,512	106	22	128	113	138	251
84.	1335 W 1st St	101 units 3,514 sf	Apartment Retail Total	714	10	40	50	42	24	66
85.	459 S Hartford Av	94 units	Apartment	658	9	37	48	43	23	66
86.	401 N Boylston St	101 units	Apartment	561	8	35	43	34	18	52
87.	1150 W Wilshire Blvd	80 units 4,589 sf	Apartment Restaurant Total	511	-22	26	4	39	-5	34
88.	737 S Spring St	320 units 25,000 sf	Apartment Pharmacy Total	3,942	72	141	213	167	116	283
89.	1218 W Ingraham St	90 units	Apartment	532	8	33	41	33	17	50
90.	555 S Mateo St	153,000 sf	Retail	4,300	5	30	35	220	205	425
91.	1147 E Palmetto	120 units 141 Rooms 20,000 sf	Apartment Hotel Restaurant Total	2,908	73	141	215	147	83	230

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
92.	742 S Hartford Av	58 units	Apartment	333	5	21	26	20	11	31
93.	732 S Spring St	400 units	Apartment							
		15,000 sf	Pharmacy							
			Total	3,409	59	152	211	164	104	268
94.	340 S Hill St	428 units	Apartment							
		6,700 sf	Retail							
			Total	2,361	34	129	163	141	79	220
95.	1728 W 7th St	9,600 sf	Restaurant							
		3,500 sf	Bar							
			Total	362	-30	-40	-70	50	14	64
96.	1145 W 7th St	126 units	Condominium							
		100 units	Apartment							
		7,200 sf	Retail							
			Total	1,084	4	66	70	67	35	102
97.	360 S Alameda St	55 units	Apartment							
		2,500 sf	Restaurant							
		6,300 sf	Office							
			Total	670	25	33	58	35	26	61
98.	1929 W Pico Bl	480 student	Charter High School	821	140	66	206	20	42	62
99.	118 Astronaut E. S. Onizuka	77 units	Apartment	97	-1	20	19	19	6	25
100.	700 W Cesar Chavez Av	300 units	Apartment							
		8,000 sf	Retail							
			Total	1,511	7	89	96	99	54	153
101.	649 S Wall St	66 empl	Medical Office							
		55 Beds	Assisted Living							
			Total	104	24	5	29	3	24	27
102.	500 S Mateo St	12,682 sf	Restaurant	1,052	48	41	89	50	31	81
103.	300 S Main St	471 units	Apartment							
		5,190 sf	Retail							
		27,780 sf	Restaurant							
			Total	4,691	143	243	386	257	153	410
104.	850 S Hill St	305 units	Apartment							
		3,200 sf	Retail							
		3,300 sf	Restaurant							
			Total	1,970	28	106	134	116	65	181
105.	340 N Patton St	43 units	Apartment	267	4	16	20	17	8	25
106.	400 S Alameda St	66 rooms	Hotel							
		2,130 sf	Restaurant							
		840 sf	Retail							
			Total	508	19	17	36	23	14	37
107.	700 W 9th St	689 units	Condominium	2,624	37	146	183	143	95	238
		22,963 sf	Retail							
108.	649 S Olive St	241 Rooms	Hotel	1,674	6	44	50	63	60	123
109.	1111 W 6th St (revised)	369 units	Apartment							
		18,600 sf	Retail							
		2,200 sf	Restaurant							
		1,200 sf	Coffee							
			Total	587	-71	117	46	104	-51	53

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
110.	1633 W 11th St	460 student	Charter School (K-5)	970	194	158	352	29	37	66
111.	1229 Grand Av	161 units	Condominium	1,116	23	62	85	62	33	95
112.	675 S Bixel St	3,000 sf	Restaurant							
		126 Rooms	Hotel							
		422 units	Apartment							
		4,874 sf	Retail							
			Total	3,461	74	173	247	184	116	300
113.	740 S Hartford Av	80 units	Apartment	479	7	30	37	29	15	44
114.	1235 W 7th St	303 units	Condominium							
		5,959 sf	Retail							
			Total	1,725	23	95	118	100	54	154
115.	940 S Hill St. (MU revised)	232 units	Apartment	1,181	20	80	100	115	53	168
		14,000 sf	Restaurant							
116.	1322 W Linwood Av	84 units	Apartment	449	5	30	35	28	14	42
117.	719 E 5th St	160 units	Apartment							
		10,057 sf	Retail							
			Total	1,033	15	58	73	59	37	96
118.	1316 W Court St	112 units	Apartment	745	11	46	57	45	24	69
119.	1334 S Flower St	188 units	Apartment	796	-1	49	48	51	16	67
		10,096 sf	Retail/Restaurant							
120.	929 E 2nd St	40,034 sf	Retail							
		985 sf	Retail							
		7,843 sf	Event Space							
		10,369 sf	Private Drinking Space							
		40,249 sf	Private Office							
		5,383 sf	Private Health Club							
		49 sf	Private Theater							
	Total	2,014	61	9	70	101	88	189		
121.	633 S Spring St	176 rooms	Hotel							
		8,430 sf	Restaurant							
		5,290 sf	Bar							
			Total	2,045	83	33	116	97	99	196
122.	1020 S Figueroa St	435 units	Condominium	6,583	204	274	478	312	227	539
		300 Rooms	Hotel							
		40,000 sf	Retail							
		40,000 sf	Restaurant							
123.	720 W Washington Bl	105 units	Apartment	350	7	12	19	13	12	25
124.	1400 S Flower St	147 units	Apartment	798	-1	49	48	51	16	67
		6,921 sf	Retail							
125.	1930 W Wilshire Bl	478 units	Apartment							
		850 seats	Theatre							
		50 student	Enrollment							
		220 rooms	Hotel							
			Total	1,355	-44	128	84	103	-41	62

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
126.	130 S Beaudry Av	230 units 9,000 sf	Apartment Retail Total	1,323	11	77	88	83	36	119
127.	495 S Hartford Av	220 units	Apartment	1,033	16	63	79	62	34	96
128.	1122 W Washington Bl	60,000 sf	Medical Office	2,060	107	29	136	57	146	203
129.	1155 S Olive St	258 rooms 1,896 sf 2,722 sf	Hotel Retail Restaurant	2,008	77	56	133	77	72	149
130.	437 Hill Street	600 units 13,872 sf	Apartment Restaurant	3,088	44	122	166	162	97	259
131.	1011 S Park View St	108 units	Apartment	594	9	38	47	38	19	57
132.	1900 S Broadway (The Reef_LAMart)	900 units 550 units 210 room 143,100 sf 180,000 sf 17,600 sf 8,000 sf	Condominium Apartments Hotel Retail Office Museum/Gallery Gym	1,203	390	552	942	637	566	1,203
133.	1302 W Washington Bl	16,572 sf	Pharmacy-Drug Store	414	-33	-18	-51	21	12	33
134.	1255 E Elden Av	103 units	Apartment	376	0	32	32	28	10	38
135.	2716 S Severance St	9,955 sf	Child Care Expand	737	64	57	121	58	65	123
136.	2405 W 8th Street	144 units 4,406 sf	Apartment Retail	333	-20	48	28	42	-15	27
137.	2501 Olympic Bl	173 units 3,618 sf	Apartments Retail	1,911	27	72	99	100	73	173
138.	744 S Figueroa St	436 units 10,165 sf	Apartments Retail	2,972	38	148	186	176	94	270
139.	815 W Olympic Bl	346 rooms 61,149 sf 36,256 sf	Hotel Retail Office	3,915	137	133	270	167	165	332
140.	243 W Adams Bl	300 units 5,000 sf	Apartments Retail/Restaurant	990	5	99	104	72	10	82
141.	433 S Main	161 units 1,700 sf 900 sf 4,300 sf	Condominium Restaurant Retail Coffee	1,859	85	147	232	66	48	113
142.	845 Olive & 842 Grand	208 units 2,400 sf	Apartment Restaurant	1,202	24	70	94	72	39	111
143.	1000 W Temple St	1,500 units 30,000 sf (10 story)	Apartment Retail Office Building Total	9,975	150	615	765	600	330	930
				1,281	18	11	29	53	58	112
				<u>-1,101</u>	<u>-136</u>	<u>-19</u>	<u>-155</u>	<u>-25</u>	<u>-124</u>	<u>-149</u>
				10,155	32	607	639	628	264	893
144.	1340 S. Hill St	235 units 9,000 sf	Apartment Retail Total	1,563	24	96	120	94	52	146
				<u>4,465</u>	<u>227</u>	<u>218</u>	<u>444</u>	<u>158</u>	<u>146</u>	<u>305</u>
				6,028	250	314	564	252	198	450



No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
145.	8th-Golden-Garland	118 sf	Residential	1,281	81	45	126	52	92	144
		2,439 sf	Retail							
		1,132 sf	Bar							
		2,684 sf	Daycare							
		69,295 sf	Office							
146.	888 S Hope Street	526 units	Apartments	3,498	54	214	268	214	212	426
147.	701 S Hill Street	165 units	Apartments	2,792	18	57	75	132	127	259
		11,902 sf	Bar							
		14,032 sf	Restaurant							
148.	354 S Spring St	212 units	Apartments	1,410	22	86	108	85	46	131
149.	1018 W Inghram St	37 units	Apartments	327	5	16	21	18	12	30
		1,890 sf	Retail							
150.	1030 S Hill Street	700 units	Apartments	3,392	49	193	242	181	104	285
		7,000 sf	Retail							
		7,000 sf	Restaurant							
151.	361 S Spring Street	315 rooms	Hotel	2,273	91	59	150	133	75	208
152.	656 S Stanford Ave	82	Apartments	1,463	8	34	42	33	18	51
153.	554 S San Pedro St	407 units	Affordable Housing	558	33	23	56	29	31	60
		7,690 sf	Retail/Restaruant							
		4,410 sf	Office							
			Dining/Flex Space	1,004	15	62	77	61	33	94
154.	609 E 5th Street	151 units	Apartments	998	5	71	77	33	60	93
155.	911 S Figueroa Street	220 units	Hotel	4,457	370	116	486	168	368	536
		200 units	Apartments							
		94,080 sf	Retail/Restaurant							
156.	1800 Beverly Bl	243 units	Apartments	1,585	36	93	129	92	51	143
		3,500 sf	Restaurant							
157.	1045 S Olive Street	800 units	Residential	2,227	39	157	196	138	62	200
		15,000 sf	Retail/Restaurants							
158.	100 S Broadway	1,127 units	Apartment	8,535	91	341	435	294	38	332
		34,572 sf	Retail							
		45,000 sf	Grocery							
159.	333 W 5th Street	100 units	Condominiums	3,358	64	72	136	201	129	330
		200 rooms	Hotel or							
		142 units	Condominiums							
		25,000 sf	Restaurant/Bar/Fitness							
160.	1246 W Court Street	54 units	Apartments	359	6	22	28	21	12	33
161.	755 S Wall Street	53,200 sf	Office	2,499	112	79	191	164	141	305
		323 units	Apartments							
		4,400 sf	Retail							
		4,420 sf	Restaurant							
		125 persons	Event Space							

No.	Address	Size	Description	Daily Traffic	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
162.	1123 S Main St	363 units 12,500 sf	High Rise Apartments Retail	463	5	64	69	34	6	40
163.	1100 S Main Street	379 units 25,810 sf	Apartments Retail	385	9	103	112	78	14	92
164.	1248 S Figueroa	1,162 room 6,573 sf	Hotel Restaurant	5,720	145	192	317	203	212	415
165.	1300 S Figueroa	6,573 sf 1,024 room	High Turnover Restaurant Hotel	8,366	170	373	543	188	426	614
166.	1001 W Olympic Bl	879 units 1,000 rooms	Apartments Hotel	10,418	320	388	708	455	309	764
167.	949 S Hope St	20,000 sf	Retail	791	8	45	53	43	7	50
		20,000 sf	Restaurant							
		236 units	Apartments							
168.	1138 S Broadway	5,060 sf	Restaurant	644	20	25	44	22	27	47
		894 sf	Retail							
169.	1600 S Flower St	138 room	Hotel	1,778	77	91	168	55	36	91
170.	1105 S Olive St	250 units	Apartments	5,241	122	278	700	258	160	418
		300 rooms	Hotel							
		3,120 sf	High Turnover Restaurant							
		10,000 sf	Medical Office							
		537 units	Site 2 Apartments							
		3,800 sf	Site 2 Restaurant							
3,800 sf	Site 2 Retail									
171.	1323 S Flower St	713 units	Site 3 Apartments	1,287	33	40	73	61	39	100
		7,100 sf	Site 3 Restaurant							
		7,100 sf	Site 3 Retail							
		132 rooms	Hotel							
		47 units	Apartments							
		3,685 sf	Rooftop Bar/Restaurant							
172.	1201-1215 S Grand Av & 410 W 12th St*	(8,000) sf	Remove Office	1,309	26	76	102	84	35	119
		312 units	Multi-Family Housing							
		7,100 sf	Retail/Restaurant							
* Vehicle trips & description per LADOT approved May 2020 TA sf = square feet, fp = fuel position, du = dwelling unit										

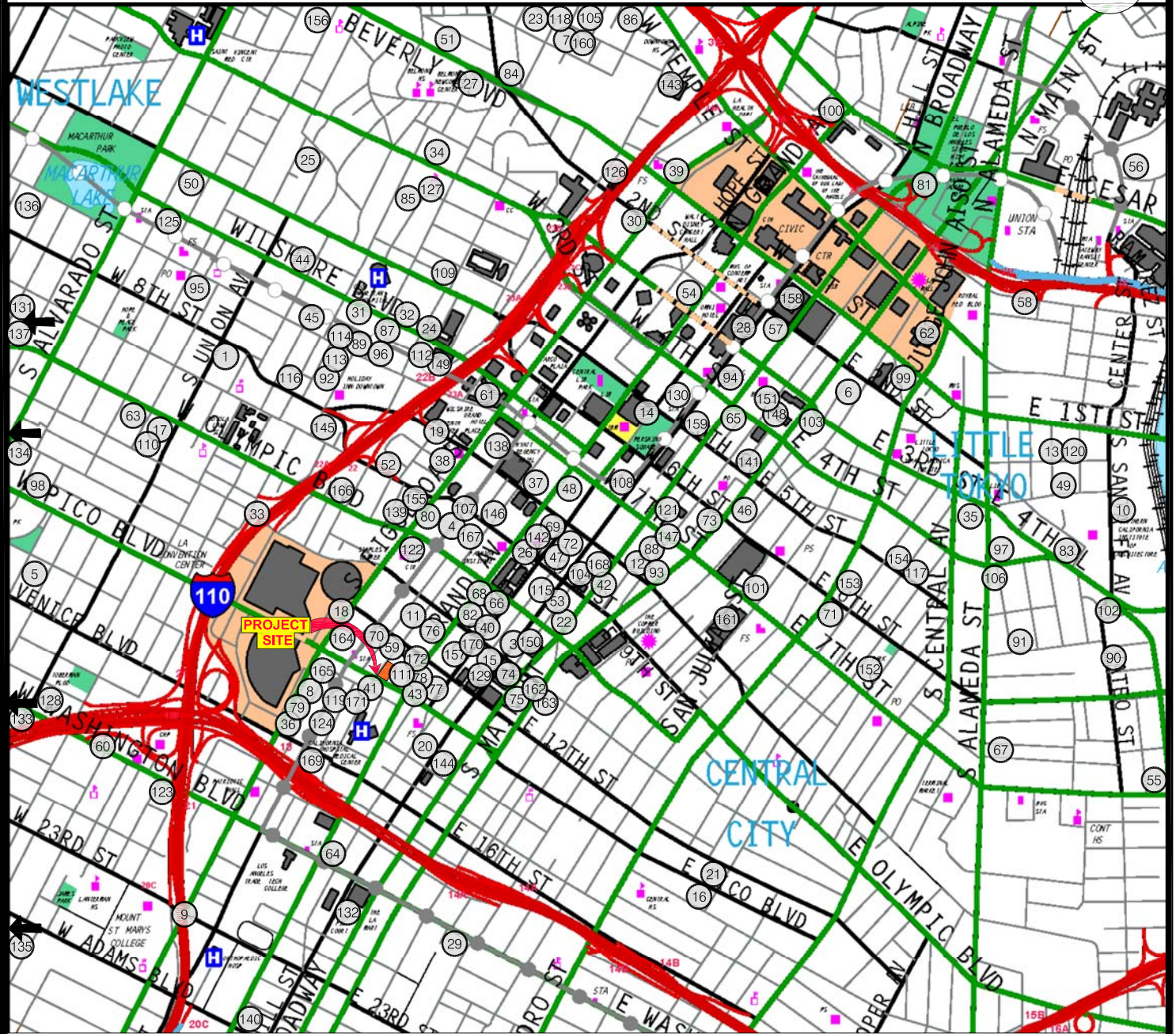


FIGURE 3

1/2022

**RELATED PROJECT LOCATION MAP**



952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266  
(310) 545-1235, [liz@overlandtraffic.com](mailto:liz@overlandtraffic.com)

**TABLE 10  
ESTIMATED PROJECT TRIP GENERATION**

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
<b>Proposed Project</b>								
Apartments <i>Internal Capture (10%)</i>	312 d.u.	-	9 (1)	63 (6)	72 (7)	66 (7)	28 (3)	94 (10)
High-Turnover Restaurant <i>Internal Capture (10%)</i> <i>Transit/Walk Credit (15%)*</i> <i>Pass-By Trips (20%)**</i>	7,100 s.f.	-	39 (4) (5) (6)	32 (3) (4) (5)	71 (7) (9) (11)	43 (4) (6) (7)	26 (3) (3) (4)	69 (7) (9) (11)
Project Trip Generation Total			32	77	109	85	41	126
<b>Existing Uses</b>								
Office	8,000 s.f.	57 [1]	6	1	7	1	6	7
<b>Project Net Trip Generation Total</b>			<b>26</b>	<b>76</b>	<b>102</b>	<b>84</b>	<b>35</b>	<b>119</b>
<b>Trip Rates [2]</b>								
Multifamily High-Rise [3]	Trips per d.u.	[1]	12%	88%	0.21	70%	30%	0.19
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	[1]	86%	14%	0.83	17%	83%	0.87
High-Turnover Restaurant (ITE Land Use 932)	Trips per 1,000 s.f.	[1]	55%	45%	9.94	62%	38%	9.77

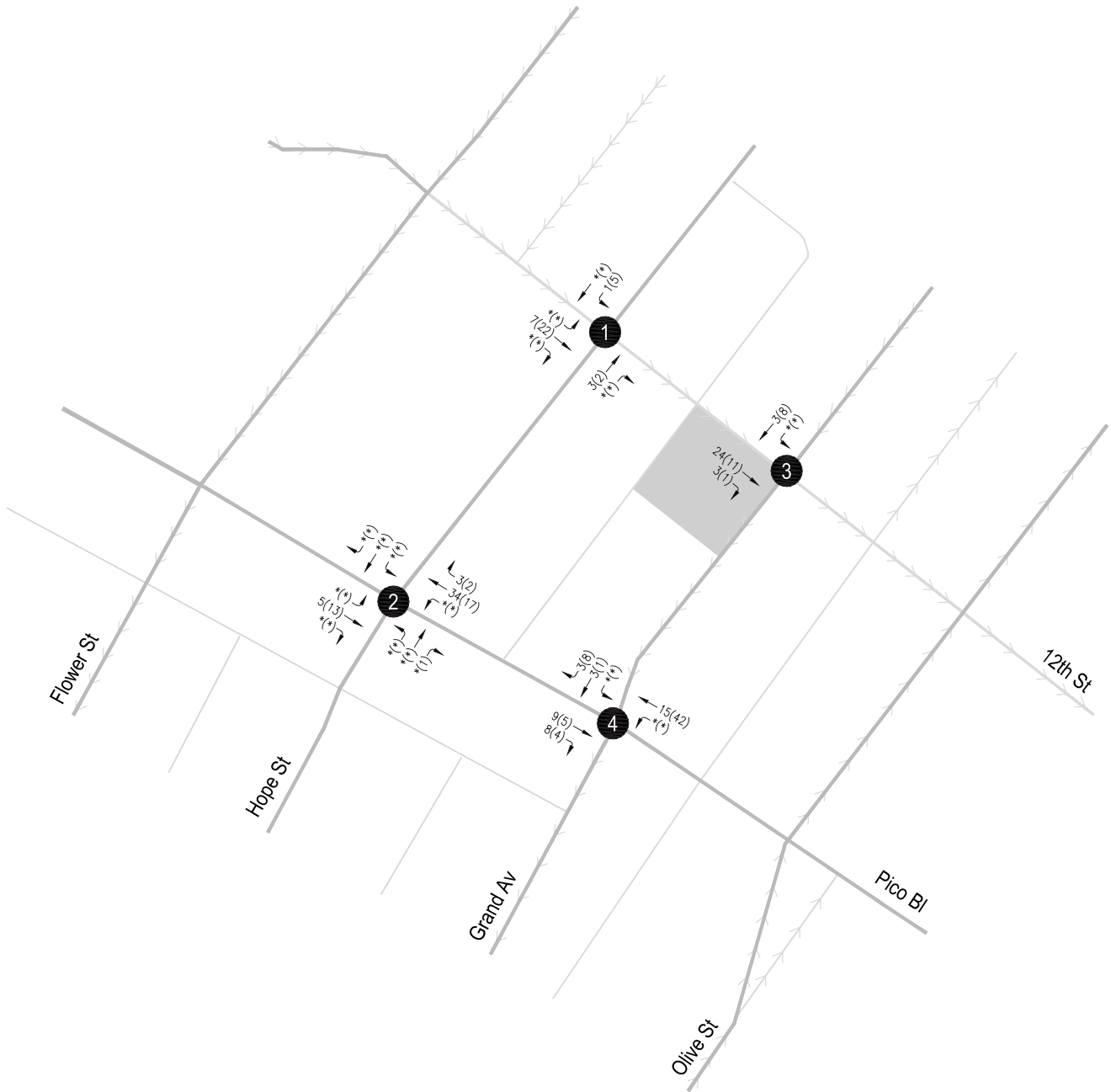
\* Transit/walk trips determined after reduction of internal capture.

\*\* Pass-by trips determined after reduction of internal capture and transit/walk trips.

[1] Project and existing daily trips calculated using the City of Los Angeles' VMT Calculator Tool (version 1.2).

[2] *Trip Generation Manual*, 10th Edition, ITE 2017, unless otherwise noted. For Land Use Code 710-General Office, trip rates for the Dense Multi-Use Urban setting were used. Therefore, no transit/walk adjustments are applied. For Land Use Code 932-High-Turnover Restaurant, trip rates for the General Urban/Suburban setting were used, as no rates are provided for the Dense Multi-Use Urban setting. Transit/walk adjustments were, therefore, only applied to the proposed High-Turnover (Sit-Down) Restaurant land use. Conservatively, high-turnover restaurant use is assumed for the Project and is intended to cover retail uses.

[3] Multifamily High-Rise trip generation rates from *Los Angeles Department of Transportation (LADOT) Transportation Guidelines, Table 3.3-1: Local Trip Generation Rates for Multifamily Mid-Rise and High-Rise Residential Land Uses in Dense Multi-Use Urban Areas*, July 2019. Trip generation rates for Multifamily High-Rise were utilized.



**LEGEND:**

- Project Site: 1201 S. Grand Av
- Location of Study Intersection
- XXX(XXX) - AM (PM) Peak Hour Traffic Volumes

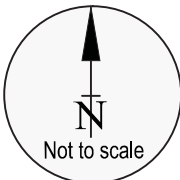


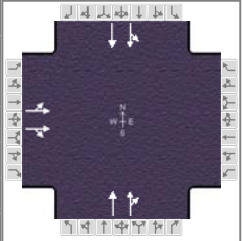
FIGURE 11 1201 S Grand Project  
PROJECT ONLY - PEAK HOUR TRAFFIC VOLUMES

# ATTACHMENT C

## HCS Worksheets

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.93
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT WO PROJ.xus		
Project Description	MORRISON MU - FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	21	175	30						474	62	63	224

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	45.6	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

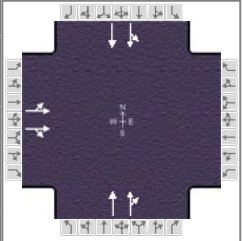
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		10.4				49.6		49.6
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		6.1						
Green Extension Time ( g <sub>e</sub> ), s		0.4				0.0		0.0
Phase Call Probability		0.98						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate ( v ), veh/h	130		113					295	282	141	168	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1811		1627					1827	1730	1060	1663	
Queue Service Time ( g <sub>s</sub> ), s	4.1		4.0					6.5	2.8	0.6	3.6	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.1		4.0					6.5	2.8	7.1	3.6	
Green Ratio ( g/C )	0.11		0.11					0.76	0.76	0.76	0.76	
Capacity ( c ), veh/h	195		175					1387	1314	893	1262	
Volume-to-Capacity Ratio ( X )	0.669		0.646					0.212	0.214	0.158	0.133	
Back of Queue ( Q ), ft/ln ( 50 th percentile)	43.2		37.5					11.7	11	5.8	6.3	
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.7		1.5					0.5	0.4	0.2	0.2	
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00					0.00	0.00	0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh	25.8		25.7					2.1	2.1	2.1	1.9	
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.5					0.3	0.4	0.4	0.2	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0					0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh	27.2		27.2					2.4	2.5	2.4	2.2	
Level of Service ( LOS )	C		C					A	A	A	A	
Approach Delay, s/veh / LOS	27.2		C	0.0			2.4		A	2.3		A
Intersection Delay, s/veh / LOS	7.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.93		
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH AM FUT With PROJ.xus				
Project Description	MORRISON MU - FUTURE With PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	21	197	37					497	86	70	231	

Signal Information				Signal Phases										
Cycle, s	60.0	Reference Phase	2	↓	↑	↔					1	2	3	4
Offset, s	0	Reference Point	End	Green	44.9	7.1	0.0	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		11.1				48.9		48.9
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		6.7						
Green Extension Time ( g <sub>e</sub> ), s		0.5				0.0		0.0
Phase Call Probability		0.99						
Max Out Probability		0.00						

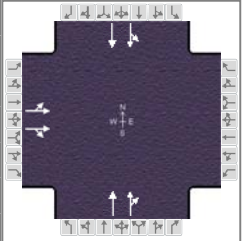
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	147		127				323	304	143	180		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1813		1621				1827	1704	964	1663		
Queue Service Time ( g <sub>s</sub> ), s	4.7		4.5				7.2	3.3	0.8	3.9		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.7		4.5				7.2	3.3	8.1	3.9		
Green Ratio ( g/C )	0.12		0.12				0.75	0.75	0.75	0.75		
Capacity ( c ), veh/h	214		191				1368	1276	813	1245		
Volume-to-Capacity Ratio ( X )	0.689		0.663				0.236	0.238	0.176	0.145		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	48.7		41.8				14.9	13.8	6.8	7.7		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	1.9		1.7				0.6	0.6	0.3	0.3		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	25.4		25.3				2.3	2.3	2.3	2.1		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.5				0.4	0.4	0.5	0.2		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	26.9		26.8				2.7	2.7	2.8	2.4		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	26.8		C	0.0			2.7	A	2.6	A		
Intersection Delay, s/veh / LOS	8.1						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.3	B	1.6	A
Bicycle LOS Score / LOS	0.7	A			1.0	A	0.8	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.96		
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE WO PROJ.xus				
Project Description	MORRISON MU - FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	82	391	42					488	100	99	535	

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	40.1	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

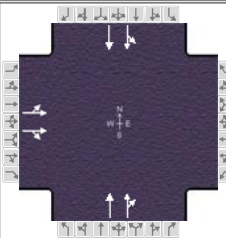
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		15.9				44.1		44.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0				4.0		4.0
Max Allow Headway ( MAH ), s		3.1				0.0		0.0
Queue Clearance Time ( g <sub>s</sub> ), s		10.9						
Green Extension Time ( g <sub>e</sub> ), s		0.9				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( v ), veh/h	285		252				318	295	298	362		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1817		1756				1863	1711	1227	1695		
Queue Service Time ( g <sub>s</sub> ), s	8.9		8.1				6.9	4.1	1.0	8.6		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	8.9		8.1				6.9	4.1	7.8	8.6		
Green Ratio ( g/C )	0.20		0.20				0.67	0.67	0.67	0.67		
Capacity ( c ), veh/h	359		347				1246	1145	902	1134		
Volume-to-Capacity Ratio ( X )	0.792		0.726				0.255	0.258	0.331	0.319		
Back of Queue ( Q ), ft/ln ( 50 th percentile)	90.3		78				27.6	25.8	27.5	34.1		
Back of Queue ( Q ), veh/ln ( 50 th percentile)	3.6		3.1				1.1	1.0	1.1	1.3		
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	22.9		22.5				4.0	4.0	4.0	4.2		
Incremental Delay ( d <sub>2</sub> ), s/veh	1.5		1.1				0.5	0.5	1.0	0.7		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh	24.4		23.6				4.5	4.5	5.0	4.9		
Level of Service ( LOS )	C		C				A	A	A	A		
Approach Delay, s/veh / LOS	24.0		C	0.0			4.5	A	5.0	A		
Intersection Delay, s/veh / LOS	10.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	0.9	A			1.0	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.96
Urban Street	Hope Street	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	12th Street	File Name	1 HOPE & 12TH PM FUTURE With PROJ.xus		
Project Description	MORRISON MU - FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h	82	434	56					524	150	116	548	

Signal Information				Signal Phases									
Cycle, s	60.0	Reference Phase	2	↓	↑	↔	↔	↔	↔	↔	↔	↔	↔
Offset, s	0	Reference Point	End	Green	39.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

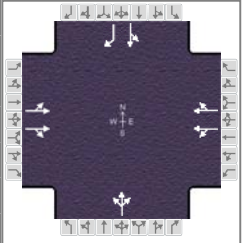
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2		6
Case Number		12.0				8.0		8.0
Phase Duration, s		17.0				43.0		43.0
Change Period, ( $Y+R_c$ ), s		4.0				4.0		4.0
Max Allow Headway ( $MAH$ ), s		3.1				0.0		0.0
Queue Clearance Time ( $g_s$ ), s		11.9						
Green Extension Time ( $g_e$ ), s		1.0				0.0		0.0
Phase Call Probability		1.00						
Max Out Probability		0.00						

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14				2	12	1	6		
Adjusted Flow Rate ( $v$ ), veh/h	318		278				369	333	296	395		
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1820		1742				1863	1665	1041	1695		
Queue Service Time ( $g_s$ ), s	9.9		8.9				8.2	5.2	3.8	9.3		
Cycle Queue Clearance Time ( $g_c$ ), s	9.9		8.9				8.2	5.2	12.0	9.3		
Green Ratio ( $g/C$ )	0.22		0.22				0.65	0.65	0.65	0.65		
Capacity ( $c$ ), veh/h	393		377				1212	1083	762	1103		
Volume-to-Capacity Ratio ( $X$ )	0.807		0.739				0.305	0.307	0.389	0.359		
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	99.8		85.3				37.3	33.7	31.8	42.5		
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	4.0		3.4				1.5	1.3	1.3	1.7		
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00				0.00	0.00	0.00	0.00		
Uniform Delay ( $d_1$ ), s/veh	22.3		21.9				4.6	4.6	5.4	4.8		
Incremental Delay ( $d_2$ ), s/veh	1.5		1.1				0.6	0.7	1.5	0.9		
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0				0.0	0.0	0.0	0.0		
Control Delay ( $d$ ), s/veh	23.8		23.0				5.2	5.3	6.9	5.7		
Level of Service (LOS)	C			C			A			A		
Approach Delay, s/veh / LOS	23.5		C	0.0			5.3		A	6.2		A
Intersection Delay, s/veh / LOS	11.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.7	B	2.7	B	2.4	B	1.6	A
Bicycle LOS Score / LOS	1.0	A			1.1	A	1.1	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	107	708	30	27	571	81	42	378	46	14	217	37

Signal Information				Signal Phases								
Cycle, s	100.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	61.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

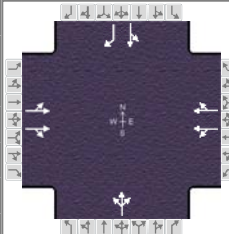
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		65.0		65.0		35.0		35.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( MAH ), s		0.0		0.0		3.1		3.1
Queue Clearance Time ( g <sub>s</sub> ), s						31.0		12.7
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0		0.0		1.6
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v ), veh/h	423			496			392			346		
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1206			1599			1614			1433		
Queue Service Time ( g <sub>s</sub> ), s	13.4			16.7			0.0			11.7		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	25.2			16.7			11.3			11.7		
Green Ratio ( g/C )	0.61			0.61			0.61			0.61		
Capacity ( c ), veh/h	782			976			1023			874		
Volume-to-Capacity Ratio ( X )	0.541			0.508			0.383			0.396		
Back of Queue ( Q ), ft/ln ( 50 th percentile )	153.7			149.4			105.1			95		
Back of Queue ( Q ), veh/ln ( 50 th percentile )	6.1			6.0			4.2			3.8		
Queue Storage Ratio ( RQ ) ( 50 th percentile )	0.00			0.00			0.00			0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh	12.6			10.9			9.8			9.9		
Incremental Delay ( d <sub>2</sub> ), s/veh	2.7			1.9			1.1			1.3		
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0			0.0			0.0			0.0		
Control Delay ( d ), s/veh	15.3			12.8			10.9			11.2		
Level of Service ( LOS )	B			B			B			B		
Approach Delay, s/veh / LOS	13.9			B			11.1			B		
Intersection Delay, s/veh / LOS				21.9						C		

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.1	A	1.3	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction		Time Period	AM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO AM FUTURE WITH PROJECT.xus				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	130	708	30	35	601	195	42	440	46	29	217	37

Signal Information													
Cycle, s	100.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	0.0	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	0.0	0.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

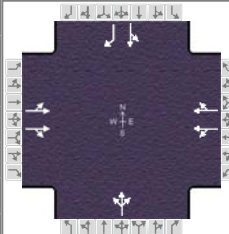
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		65.0		65.0		35.0		35.0
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		0.0		0.0
Queue Clearance Time ( $g_s$ ), s		0.0		0.0		0.0		0.0
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate ( $v$ ), veh/h	0		0	0		0		0		0		0	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	0		0	0		0		0		0		0	
Queue Service Time ( $g_s$ ), s	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Cycle Queue Clearance Time ( $g_c$ ), s	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Green Ratio ( $g/C$ )	0.61		0.61	0.61		0.61		0.31		0.31		0.31	
Capacity ( $c$ ), veh/h	607		977	1019		828		573		512		444	
Volume-to-Capacity Ratio ( $X$ )	0.654		0.559	0.481		0.499		1.002		0.522		0.091	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	184.3		172.6	143		124.4		511.1		128.8		17.8	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	7.4		6.9	5.7		5.0		19.8		5.1		0.7	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00		0.00		0.00	
Uniform Delay ( $d_1$ ), s/veh	16.9		11.4	10.6		10.7		35.4		27.8		24.5	
Incremental Delay ( $d_2$ ), s/veh	5.4		2.3	1.6		2.1		38.1		0.5		0.0	
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Control Delay ( $d$ ), s/veh	22.3		13.7	12.2		12.9		73.5		28.3		24.5	
Level of Service (LOS)	C		B	B		B		F		C		C	
Approach Delay, s/veh / LOS	17.3		B	12.5		B		73.5		E		27.8	C
Intersection Delay, s/veh / LOS	28.7						C						

Multimodal Results	EB		WB		NB		SB	
	Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7
Bicycle LOS Score / LOS	1.3	A	1.2	A	1.4	A	1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2023	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITHOUT PROJE...				
Project Description	MORRISON MU FUTURE WITHOUT PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	104	719	47	47	947	80	36	363	54	36	326	135

Signal Information													
Cycle, s	100.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	62.0	30.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

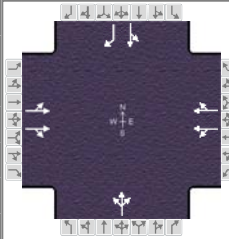
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		66.0		66.0		34.0		34.0
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		3.2		3.2
Queue Clearance Time ( $g_s$ ), s						32.0		25.1
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.0		1.3
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		0.60

Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Approach Movement													
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate ( $v$ ), veh/h	392		554	619		549		492		393		147	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	841		1585	1590		1447		1631		1535		1468	
Queue Service Time ( $g_s$ ), s	21.4		19.3	3.5		20.4		6.9		0.0		7.8	
Cycle Queue Clearance Time ( $g_c$ ), s	41.8		19.3	22.8		20.4		30.0		23.1		7.8	
Green Ratio ( $g/C$ )	0.62		0.62	0.62		0.62		0.30		0.30		0.30	
Capacity ( $c$ ), veh/h	568		983	1025		897		528		500		440	
Volume-to-Capacity Ratio ( $X$ )	0.690		0.564	0.604		0.612		0.932		0.787		0.333	
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	192.9		171.4	194.5		176		388.3		239.2		67	
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	7.7		6.9	7.8		7.0		14.9		9.5		2.7	
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00		0.00		0.00	
Uniform Delay ( $d_1$ ), s/veh	16.6		10.9	11.1		11.1		34.8		31.7		27.2	
Incremental Delay ( $d_2$ ), s/veh	6.7		2.3	2.6		3.1		23.3		7.5		0.2	
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0	0.0		0.0		0.0		0.0		0.0	
Control Delay ( $d$ ), s/veh	23.4		13.2	13.8		14.2		58.1		39.2		27.4	
Level of Service (LOS)	C		B	B		B		E		D		C	
Approach Delay, s/veh / LOS	17.4		B	14.0		B		58.1		E		36.0	D
Intersection Delay, s/veh / LOS	25.7						C						

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.5	A	1.3	A	1.4	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction		Time Period	PM PEAK HOUR	PHF	0.93		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	HOPE STREET	File Name	2 HOPE & PICO PM FUTURE WITH PROJECT.xus				
Project Description	MORRISON MU FUTURE WITH PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	146	719	47	62	991	266	36	476	55	62	326	135

Signal Information												
Cycle, s	95.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	57.0	30.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

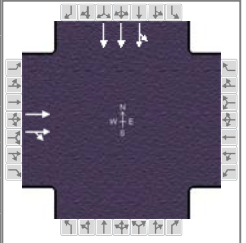
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		7.0
Phase Duration, s		61.0		61.0		34.0		34.0
Change Period, ( $Y+R_c$ ), s		4.0		4.0		4.0		4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0		3.3		3.3
Queue Clearance Time ( $g_s$ ), s						32.0		32.0
Green Extension Time ( $g_e$ ), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( $v$ ), veh/h	311		670	752		666		610			417	145
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	359		1591	1255		1362		1609			1213	1442
Queue Service Time ( $g_s$ ), s	25.9		26.0	30.9		31.1		0.0			0.0	7.3
Cycle Queue Clearance Time ( $g_c$ ), s	57.0		26.0	56.9		31.1		30.0			30.0	7.3
Green Ratio ( $g/C$ )	0.60		0.60	0.60		0.60		0.32			0.32	0.32
Capacity ( $c$ ), veh/h	272		955	794		817		548			427	455
Volume-to-Capacity Ratio ( $X$ )	1.142		0.702	0.947		0.815		1.112			0.977	0.319
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	344.4		238.2	496.8		275.2		611			354.9	61.2
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	13.8		9.5	19.9		11.0		23.5			13.9	2.4
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00		0.00	0.00		0.00		0.00			0.00	0.00
Uniform Delay ( $d_1$ ), s/veh	31.2		12.8	20.4		13.8		33.1			32.3	24.7
Incremental Delay ( $d_2$ ), s/veh	98.5		4.3	21.3		8.8		72.9			37.2	0.1
Initial Queue Delay ( $d_3$ ), s/veh	0.0		0.0	0.0		0.0		0.0			0.0	0.0
Control Delay ( $d$ ), s/veh	129.7		17.1	41.7		22.6		106.0			69.5	24.9
Level of Service (LOS)	F		B	D		C		F			E	C
Approach Delay, s/veh / LOS	52.8		D	32.7		C		106.0		F	58.0	E
Intersection Delay, s/veh / LOS	54.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.2	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.7	A	1.5	A	1.4	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Oct 26, 2020	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.91
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		247	71							144	715	

Signal Information													
Cycle, s	70.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	46.8	15.2	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

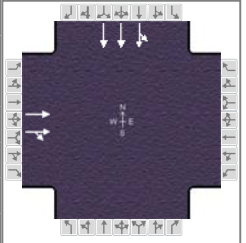
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		50.8						19.2
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								14.2
Green Extension Time ( g <sub>e</sub> ), s		0.0						1.0
Phase Call Probability								1.00
Max Out Probability								0.72

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		181	169							330	614	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1881	1686							1819	1863	
Queue Service Time ( g <sub>s</sub> ), s		2.7	2.6							12.2	10.8	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		2.7	2.6							12.2	10.8	
Green Ratio ( g/C )		0.67	0.67							0.22	0.22	
Capacity ( c ), veh/h		1258	1127							395	808	
Volume-to-Capacity Ratio ( X )		0.144	0.150							0.837	0.759	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		18.8	17.8							148.3	119.9	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.7	0.7							5.9	4.7	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		4.2	4.3							26.2	25.7	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.2	0.3							9.5	2.3	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		4.5	4.5							35.7	28.0	
Level of Service ( LOS )		A	A							D	C	
Approach Delay, s/veh / LOS	4.5	A		0.0			0.0			30.7	C	
Intersection Delay, s/veh / LOS	23.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.91
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH AM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		264	99							144	723	

Signal Information													
Cycle, s	70.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	46.9	15.1	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		50.9						19.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								14.3
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.8
Phase Call Probability								1.00
Max Out Probability								1.00

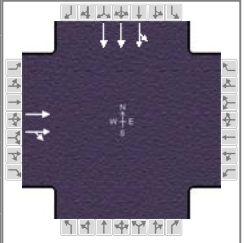
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		208	190							333	619	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1881	1647							1820	1863	
Queue Service Time ( g <sub>s</sub> ), s		3.1	3.0							12.3	10.9	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		3.1	3.0							12.3	10.9	
Green Ratio ( g/C )		0.67	0.67							0.22	0.22	
Capacity ( c ), veh/h		1260	1103							393	804	
Volume-to-Capacity Ratio ( X )		0.165	0.173							0.849	0.770	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		22	20.5							156.6	123.2	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		0.9	0.8							6.3	4.8	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		4.3	4.3							26.3	25.8	
Incremental Delay ( d <sub>2</sub> ), s/veh		0.3	0.3							12.0	3.1	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		4.6	4.7							38.3	28.9	
Level of Service ( LOS )		A	A							D	C	
Approach Delay, s/veh / LOS	4.6	A		0.0			0.0			32.2	C	
Intersection Delay, s/veh / LOS	24.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.8	A					1.0	A



# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		396	89							147	1908	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	29.0	28.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

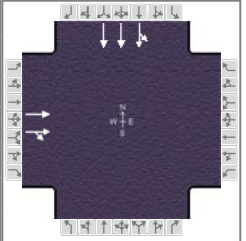
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								28.7
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.0
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		278	249							788	1445	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1655							1881	1900	
Queue Service Time ( g <sub>s</sub> ), s		6.0	6.4							26.7	22.7	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		6.0	6.4							26.7	22.7	
Green Ratio ( g/C )		0.45	0.45							0.43	0.43	
Capacity ( c ), veh/h		848	739							810	1637	
Volume-to-Capacity Ratio ( X )		0.328	0.337							0.973	0.883	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		62.1	56.7							383.4	242.1	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		2.5	2.3							15.3	9.7	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		11.7	11.7							18.1	17.0	
Incremental Delay ( d <sub>2</sub> ), s/veh		1.0	1.2							24.9	5.9	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		12.7	13.0							43.1	22.9	
Level of Service ( LOS )		B	B							D	C	
Approach Delay, s/veh / LOS	12.8	B		0.0			0.0			30.0	C	
Intersection Delay, s/veh / LOS	26.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	0.9	A					1.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	12TH STREET	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	3 GRAND & 12TH PM FUTURE WITH PROJECT...		
Project Description	MORRISON MU FUTURE WITH PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		423	132							147	1925	

Signal Information													
Cycle, s	65.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	29.0	28.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

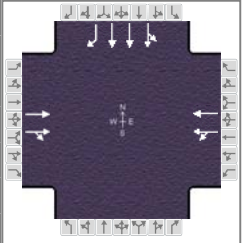
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2						4
Case Number		8.0						12.0
Phase Duration, s		33.0						32.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0						4.0
Max Allow Headway ( MAH ), s		0.0						3.0
Queue Clearance Time ( g <sub>s</sub> ), s								29.1
Green Extension Time ( g <sub>e</sub> ), s		0.0						0.0
Phase Call Probability								1.00
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		2	12							7	4	
Adjusted Flow Rate ( v ), veh/h		325	278							795	1457	
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1900	1589							1881	1900	
Queue Service Time ( g <sub>s</sub> ), s		7.0	7.6							27.1	23.0	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		7.0	7.6							27.1	23.0	
Green Ratio ( g/C )		0.45	0.45							0.43	0.43	
Capacity ( c ), veh/h		848	709							810	1637	
Volume-to-Capacity Ratio ( X )		0.383	0.393							0.981	0.890	
Back of Queue ( Q ), ft/ln ( 50 th percentile)		75.2	66							397.1	247.3	
Back of Queue ( Q ), veh/ln ( 50 th percentile)		3.0	2.6							15.9	9.9	
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00							0.00	0.00	
Uniform Delay ( d <sub>1</sub> ), s/veh		12.0	12.1							18.2	17.1	
Incremental Delay ( d <sub>2</sub> ), s/veh		1.3	1.6							26.8	6.3	
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0							0.0	0.0	
Control Delay ( d ), s/veh		13.3	13.7							45.0	23.4	
Level of Service ( LOS )		B	B							D	C	
Approach Delay, s/veh / LOS	13.5	B		0.0			0.0			31.0	C	
Intersection Delay, s/veh / LOS	27.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	1.9	A	2.5	B	1.7	A
Bicycle LOS Score / LOS	1.0	A					1.7	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.95
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE WO PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h		663	122	78	539					30	663	89

Signal Information												
Cycle, s	60.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	40.4	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

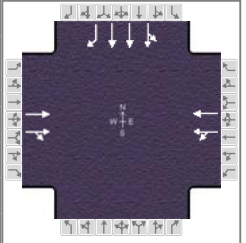
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		44.4		44.4				15.6
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								9.9
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				1.7
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		434	393	303	346					255	475	94
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1863	1683	1157	1549					1810	1863	1223
Queue Service Time ( g <sub>s</sub> ), s		10.1	6.0	1.6	9.6					7.9	7.1	4.0
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		10.1	6.0	11.7	9.6					7.9	7.1	4.0
Green Ratio ( g/C )		0.67	0.67	0.67	0.67					0.19	0.19	0.19
Capacity ( c ), veh/h		1253	1132	855	1042					351	723	237
Volume-to-Capacity Ratio ( X )		0.346	0.347	0.355	0.332					0.725	0.657	0.395
Back of Queue ( Q ), ft/ln ( 50 th percentile)		40.4	36.6	28.1	33					79.1	72.3	27
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.6	1.5	1.1	1.3					3.2	2.8	1.1
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		4.2	4.2	4.1	4.1					22.7	22.3	21.1
Incremental Delay ( d <sub>2</sub> ), s/veh		0.8	0.8	1.2	0.9					1.1	0.4	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		5.0	5.0	5.3	4.9					23.8	22.7	21.5
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	5.0	A		5.1	A		0.0			22.9	C	
Intersection Delay, s/veh / LOS	11.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.0	A			0.9	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.95
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO AM FUTURE With PROJECT.xus		
Project Description	MORRISON MU FUTURE WO PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		673	122	78	567					30	691	97

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	40.0	12.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

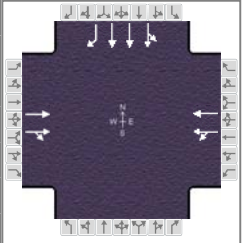
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		44.0		44.0				16.0
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								10.2
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				1.8
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		439	398	318	361					265	494	102
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1863	1684	1179	1549					1814	1863	1225
Queue Service Time ( g <sub>s</sub> ), s		10.3	6.2	1.6	10.2					8.2	7.3	4.4
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		10.3	6.2	11.9	10.2					8.2	7.3	4.4
Green Ratio ( g/C )		0.67	0.67	0.67	0.67					0.20	0.20	0.20
Capacity ( c ), veh/h		1241	1122	861	1032					364	747	246
Volume-to-Capacity Ratio ( X )		0.354	0.354	0.370	0.349					0.730	0.661	0.416
Back of Queue ( Q ), ft/ln ( 50 th percentile)		42.9	38.9	31	36.1					82.1	74.8	29.4
Back of Queue ( Q ), veh/ln ( 50 th percentile)		1.7	1.6	1.2	1.4					3.3	2.9	1.2
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		4.4	4.4	4.3	4.3					22.5	22.1	20.9
Incremental Delay ( d <sub>2</sub> ), s/veh		0.8	0.9	1.2	0.9					1.1	0.4	0.4
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		5.2	5.3	5.5	5.2					23.5	22.5	21.3
Level of Service ( LOS )		A	A	A	A					C	C	C
Approach Delay, s/veh / LOS	5.2	A		5.3	A		0.0			22.7	C	
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.0	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.2	A	1.0	A			1.0	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OVERLAND TRAFFIC			Duration, h	0.25		
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other		
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92		
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00		
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM FUTURE WO PROJECT.xus				
Project Description	MORRISON MU FUTURE WO PROJECT						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h		757	114	40	995					159	1372	236

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	29.3	22.7	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

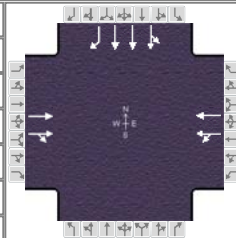
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		33.3		33.3				26.7
Change Period, ( $Y+R_c$ ), s		4.0		4.0				4.0
Max Allow Headway ( $MAH$ ), s		0.0		0.0				3.1
Queue Clearance Time ( $g_s$ ), s								19.6
Green Extension Time ( $g_e$ ), s		0.0		0.0				3.1
Phase Call Probability								1.00
Max Out Probability								0.61

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( $v$ ), veh/h		495	452	598	527					572	1092	257
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1845	1684	1735	1541					1785	1881	1303
Queue Service Time ( $g_s$ ), s		12.3	11.3	2.2	18.9					17.6	15.3	9.1
Cycle Queue Clearance Time ( $g_c$ ), s		12.3	11.3	14.7	18.9					17.6	15.3	9.1
Green Ratio ( $g/C$ )		0.49	0.49	0.49	0.49					0.38	0.38	0.38
Capacity ( $c$ ), veh/h		901	823	912	753					675	1423	493
Volume-to-Capacity Ratio ( $X$ )		0.549	0.549	0.656	0.700					0.848	0.767	0.521
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)		109	98.5	141.6	132					185.9	149.1	60.6
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)		4.3	3.9	5.7	5.2					7.4	5.9	2.4
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh		10.7	10.7	11.5	11.3					17.1	16.3	14.4
Incremental Delay ( $d_2$ ), s/veh		2.4	2.6	3.7	5.4					7.0	1.6	0.3
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( $d$ ), s/veh		13.1	13.4	15.2	16.7					24.1	18.0	14.8
Level of Service (LOS)		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	13.2	B		15.9	B		0.0			19.4	B	
Intersection Delay, s/veh / LOS	16.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A			1.5	A

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC			Duration, h	0.25
Analyst	LF	Analysis Date	Jan 10, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	PICO BOULEVARD	Analysis Year	2024	Analysis Period	1 > 7:00
Intersection	GRAND AVENUE	File Name	4 GRAND & PICO PM FUTURE With PROJECT.x...		
Project Description	MORRISON MU FUTURE With PROJECT				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h		776	114	40	1026					159	1415	253

Signal Information													
Cycle, s	60.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	28.9	23.1	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	0.0	0.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		8.0		8.0				11.0
Phase Duration, s		32.9		32.9				27.1
Change Period, ( Y+R <sub>c</sub> ), s		4.0		4.0				4.0
Max Allow Headway ( MAH ), s		0.0		0.0				3.1
Queue Clearance Time ( g <sub>s</sub> ), s								20.1
Green Extension Time ( g <sub>e</sub> ), s		0.0		0.0				3.0
Phase Call Probability								1.00
Max Out Probability								0.67

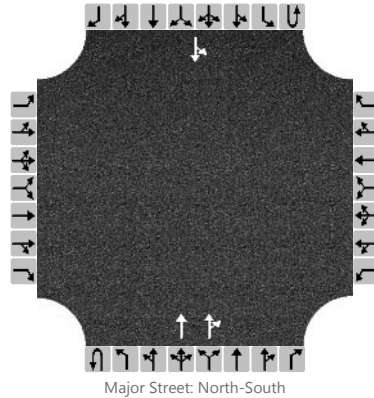
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7	4	14
Adjusted Flow Rate ( v ), veh/h		505	462	616	543					590	1121	275
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1845	1686	1718	1541					1789	1881	1304
Queue Service Time ( g <sub>s</sub> ), s		12.6	11.8	3.7	19.7					18.1	15.6	9.9
Cycle Queue Clearance Time ( g <sub>c</sub> ), s		12.6	11.8	16.4	19.7					18.1	15.6	9.9
Green Ratio ( g/C )		0.48	0.48	0.48	0.48					0.39	0.39	0.39
Capacity ( c ), veh/h		887	811	891	741					690	1451	503
Volume-to-Capacity Ratio ( X )		0.570	0.570	0.692	0.732					0.855	0.773	0.547
Back of Queue ( Q ), ft/ln ( 50 th percentile)		115.5	104.5	154.2	143.7					193.6	152.6	64.8
Back of Queue ( Q ), veh/ln ( 50 th percentile)		4.5	4.2	6.2	5.7					7.7	6.1	2.5
Queue Storage Ratio ( RQ ) ( 50 th percentile)		0.00	0.00	0.00	0.00					0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh		11.1	11.1	12.1	11.8					16.9	16.1	14.3
Incremental Delay ( d <sub>2</sub> ), s/veh		2.6	2.9	4.4	6.3					7.7	1.8	0.3
Initial Queue Delay ( d <sub>3</sub> ), s/veh		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Control Delay ( d ), s/veh		13.8	14.0	16.5	18.1					24.6	17.9	14.7
Level of Service ( LOS )		B	B	B	B					C	B	B
Approach Delay, s/veh / LOS	13.9	B		17.3	B		0.0			19.4	B	
Intersection Delay, s/veh / LOS	17.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.8	C	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.3	A	1.4	A			1.6	A

# HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LF	Intersection	Hope St & Dwy				
Agency/Co.	OVERLAND TRAFFIC	Jurisdiction	LOS ANGELES				
Date Performed	1-10-22	East/West Street	GARAGE ACCESS WAY				
Analysis Year	2024	North/South Street	Hope Street				
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	MORRISON MIXED USE						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR		LT		
Volume, V (veh/h)											583	151		0	389	
Percent Heavy Vehicles (%)														3		
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)														4.1		
Critical Headway (sec)														4.16		
Base Follow-Up Headway (sec)														2.2		
Follow-Up Headway (sec)														2.23		

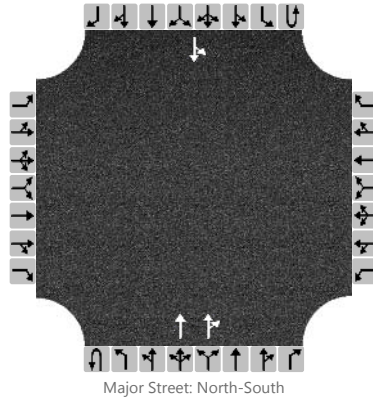
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)														0		
Capacity, c (veh/h)														814		
v/c Ratio														0.00		
95% Queue Length, Q <sub>95</sub> (veh)														0.0		
Control Delay (s/veh)														9.4		
Level of Service, LOS														A		
Approach Delay (s/veh)													0.0			
Approach LOS																

# HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LF			Intersection	Hope St & Dwy		
Agency/Co.	OVERLAND TRAFFIC			Jurisdiction	LOS ANGELES		
Date Performed	1-10-22			East/West Street	GARAGE ACCESS WAY		
Analysis Year	2024			North/South Street	Hope Street		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	MORRISON MIXED USE						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	2	0		0	1	0
Configuration											T	TR			LT	
Volume, V (veh/h)											674	257			1	603
Percent Heavy Vehicles (%)															3	
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)															4.1	
Critical Headway (sec)															4.16	
Base Follow-Up Headway (sec)															2.2	
Follow-Up Headway (sec)															2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)															1	
Capacity, c (veh/h)															675	
v/c Ratio															0.00	
95% Queue Length, Q <sub>95</sub> (veh)															0.0	
Control Delay (s/veh)															10.3	
Level of Service, LOS															B	
Approach Delay (s/veh)	0.0															
Approach LOS																



Morrison Mixed-Use  
ALTERNATIVES PROJECT SUMMARY

Vehicle Miles Traveled (VMT) Thresholds for Central Area Planning Commission (APC)  
Household VMT per Capita Threshold = 6.0 (15% below APC)  
Work VMT per Employee Threshold = 7.6 (15% below APC)

**Proposed Project - VMT Generating Components**

136 Multi-family apartment units, 444 hotel rooms, 9,848 sf of high turnover restaurant (includes 4,751 sf of indoor seating, 3,488 sf of courtyard, 232 sf chef office, 172 sf of water closet, and 1,205 sf of sidewalk restaurant space), 13,052 sf of quality restaurant (includes 8,751 sf rooftop restaurant/lounge including covered and uncovered amenity space, 4,301 sf restaurant/lounge in the lobby), and Immersive Theater 11,091 sf (conservatively estimated as 500 seat theater)

Project Featured TDM:

- Parking: Reduced Parking Supply, 222 proposed where 349 required per Los Angeles Municipal Code (LAMC)
- Bicycle Infrastructure: Includes Bike Parking per LAMC

Project Increase in Vehicle Miles Traveled (VMT) = 22,722  
Household VMT per Capita = 3.5, No Significant Household VMT Impact  
Work VMT per Employee = 6.7, No Significant Work VMT Impact

**Alternative 1 – No Project**

No Project

Net Increase in Project Vehicle Miles Traveled (VMT) = 0  
Household VMT per Capita = 0, No Significant Household VMT Impact  
Work VMT per Employee = 0, No Significant Work VMT Impact

**Alternative 2 –Reduced Density**

104 Multi-family apartment units, 284 hotel rooms, 6,055 sf of high turnover restaurant (inclusive of 3,866 sf restaurant and 2,189 sf loggia), 7,397 sf of quality restaurant (inclusive of 2,094 sf lobby bar, 1,259 sf roof top restaurant 1,286 sf covered and 2,758 sf uncovered outdoor terrace), and Immersive Theater 8,318 sf (conservatively estimated 375 seat theater=75% of proposed project)

Project Featured TDM:

- Parking: Reduced Parking Supply, 165 proposed where 250 are required per LAMC
- Bicycle Infrastructure: Includes Bike Parking per LAMC

Project Increase in Vehicle Miles Traveled (VMT) = 14,432  
Household VMT per Capita = 3.6, No Significant Household VMT Impact  
Work VMT per Employee = 6.7, No Significant Work VMT Impact

### **Alternative 3 – Morrison Preservation – Hotel Use**

136 Multi-family apartment units, 444 hotel rooms, 9,862 sf of quality restaurant (inclusive of 2,792 sf lobby bar, 1,678 sf roof top restaurant 1,715 sf covered and 3,677 sf uncovered outdoor terrace), and 7,775 sf of ground floor retail/gallery/co-working space

Project Featured TDM:

- Parking: Reduced Parking Supply, 222 proposed where 250 are required per LAMC
- Bicycle Infrastructure: Includes Bike Parking per LAMC

Project Increase in Vehicle Miles Traveled (VMT) = 19,872

Household VMT per Capita = 3.9, No Significant Household VMT Impact

Work VMT per Employee = 7.2, No Significant Work VMT Impact

### **Alternative 4 – Morrison Preservation – Office Use**

136 Multi-family apartment units, 270 hotel rooms, 36,532 sf of office, , 9,862 sf of quality restaurant (inclusive of 2,792 sf lobby bar, 1,678 sf roof top restaurant 1,715 sf covered and 3,677 sf uncovered outdoor terrace), and 7,775 sf of ground floor retail/gallery/co-working space

Project Featured TDM:

- Parking: Reduced Parking Supply, 241 proposed where 258 are required per LAMC
- Bicycle Infrastructure: Includes Bike Parking per LAMC

Project Increase in Vehicle Miles Traveled (VMT) = 17,356

Household VMT per Capita = 3.9, No Significant Household VMT Impact

Work VMT per Employee = 7.4, No Significant Work VMT Impact

### **Alternative 5 – DTLA 2040 Compliant**

159 Multi-family apartment units, 518 hotel rooms, 6,055 sf of high turnover restaurant (inclusive of 3,866 sf restaurant and 2,189 sf loggia), 12,856 sf of quality restaurant (inclusive of 3,257 sf lobby bar, 3,310 sf roof top restaurant 2,000 sf covered and 4,289 sf uncovered outdoor terrace), and Immersive Theater 12,938 sf (conservatively estimated 585 seat theater=17% more than proposed project). Parking Supply is 0 proposed where 0 are required per LAMC.

Project Featured TDM:

- Bicycle Infrastructure: Includes Bike Parking per LAMC

Project Increase in Vehicle Miles Traveled (VMT) = 27,044

Household VMT per Capita = 4.1, No Significant Household VMT Impact

Work VMT per Employee = 7.6, No Significant Work VMT Impact

A summary of the VMT Results for these alternatives is provided on the following page.

**ALTERNATIVES  
Summary VMT Results**

<b>Scenario</b>	<b>Daily VMT</b>	<b>Household VMT Per Capita</b>	<b>Significant Impact?</b>	<b>Work VMT Per Employee</b>	<b>Significant Impact?</b>
<b><i>Impact Threshold</i></b>		<b>6.0</b>		<b>7.6</b>	
Proposed Project	22,722	3.5	NO	6.7	NO
Alt 1: No Project	0	0	NO	0	NO
Alt 2: Reduced Density	14,432	3.6	NO	6.7	NO
Alt 3: Morrison Preservation - Hotel	19,872	3.9	NO	7.2	NO
Alt 4: Morrison Preservation - Office	17,356	3.9	NO	7.4	NO
Alt 5: DTLA Compliant	27,044	4.1	NO	7.6	NO

ALTERNATIVE 2, 3, 4 & 5

VMT Worksheets

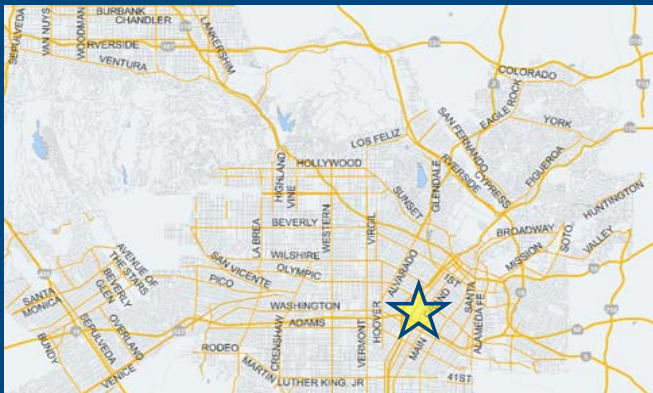
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project: Morrison Project Alternative 2  
 Scenario: Reduced Density [WWW](#)  
 Address: 1246 S HOPE ST, 90015 [Q](#)



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[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
Retail   Movie Theater	375	Seats
Housing   Multi-Family	104	DU
Housing   Hotel	284	Rooms
Retail   High-Turnover Sit-Down Restaurant	6.055	ksf
Retail   Quality Restaurant	7.397	ksf
Retail   Movie Theater	375	Seats

[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
0 Daily Vehicle Trips	2,700 Daily Vehicle Trips
0 Daily VMT	16,597 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	2,700 Net Daily Trips
The net increase in daily VMT ≤ 0	16,597 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	388,452 ksf
<b>The proposed project is required to perform VMT analysis.</b>	

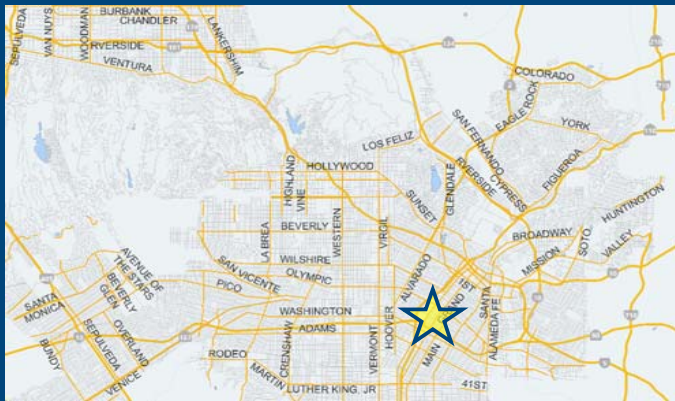


# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



## Project Information

Project: Morrison Project Alternative 2  
 Scenario: Reduced Density  
 Address: 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	104	DU
Housing   Hotel	284	Rooms
Retail   High-Turnover Sit-Down Restaurant	6,055	ksf
Retail   Quality Restaurant	7,397	ksf
Retail   Movie Theater	375	Seats

## 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

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

**A** **Parking**

Reduce Parking Supply: 261 city code parking provision for the project site  
 Proposed Prj  Mitigation 165 actual parking provision for the project site

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

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

Price Workplace Parking: 6.00 daily parking charge (dollar)  
 Proposed Prj  Mitigation 50 percent of employees subject to priced parking

Residential Area Parking Permits: 200 cost (dollar) of annual permit  
 Proposed Prj  Mitigation

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

## Analysis Results

Proposed Project	With Mitigation
<b>2,348</b> Daily Vehicle Trips	<b>2,348</b> Daily Vehicle Trips
<b>14,432</b> Daily VMT	<b>14,432</b> Daily VMT
<b>3.6</b> Household VMT per Capita	<b>3.6</b> Household VMT per Capita
<b>6.7</b> Work VMT per Employee	<b>6.7</b> Work VMT per Employee

Significant VMT Impact?	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: November 23, 2020

Project Name: Morrison Project Alternative 2

Project Scenario: Reduced Density

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information			
	Land Use Type	Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	104	DU
	<i>Townhouse</i>	0	DU
	<b>Hotel</b>	284	Rooms
	<i>Motel</i>	0	Rooms
<i>Affordable Housing</i>	<i>Family</i>	0	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<i>General Retail</i>	0.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<b>High-Turnover Sit-Down Restaurant</b>	6.055	ksf
	<i>Fast-Food Restaurant</i>	0.000	ksf
	<b>Quality Restaurant</b>	7.397	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<b>Movie Theater</b>	375	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: November 23, 2020

Project Name: Morrison Project Alternative 2

Project Scenario: Reduced Density

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 203			
Total Population: 234			
<b>Proposed Project</b>		<b>With Mitigation</b>	
2,348	Daily Vehicle Trips	2,348	Daily Vehicle Trips
14,432	Daily VMT	14,432	Daily VMT
3.6	Household VMT per Capita	3.6	Household VMT per Capita
6.7	Work VMT per Employee	6.7	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No





TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	261	261
		Actual parking provision (spaces)	165	165
	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)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: November 23, 2020

Project Name: Morrison Project Alternative 2

Project Scenario: Reduced Density

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: November 23, 2020

Project Name: Morrison Project Alternative 2

Project Scenario: Reduced Density

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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



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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: November 23, 2020  
 Project Name: Morrison Project Alternative 2  
 Project Scenario: Reduced Density  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Parking</b>	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	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%	
<b>Transit</b>	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%	
<b>Education &amp; Encouragement</b>	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%	
<b>Commute Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: November 23, 2020  
 Project Name: Morrison Project Alternative 2  
 Project Scenario: Reduced Density  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	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%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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
	<b>COMBINED TOTAL</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
<b>MAX. TDM EFFECT</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  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: November 23, 2020

Project Name: Morrison Project Alternative 2

Project Scenario: Reduced Density

Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	93	-28.0%	67	6.5	605	436
Home Based Other Production	258	-53.9%	119	4.4	1,135	524
Non-Home Based Other Production	614	-9.6%	555	7.2	4,421	3,996
Home-Based Work Attraction	295	-33.6%	196	8.0	2,360	1,568
Home-Based Other Attraction	2,606	-50.4%	1,292	5.5	14,333	7,106
Non-Home Based Other Attraction	523	-9.9%	471	6.3	3,295	2,967

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	58	379	-13.0%	58	379
Home Based Other Production	-13.0%	104	456	-13.0%	104	456
Non-Home Based Other Production	-13.0%	483	3,475	-13.0%	483	3,475
Home-Based Work Attraction	-13.0%	170	1,363	-13.0%	170	1,363
Home-Based Other Attraction	-13.0%	1,123	6,179	-13.0%	1,123	6,179
Non-Home Based Other Attraction	-13.0%	410	2,580	-13.0%	410	2,580

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 234

Total Employees: 203

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>835</b>	<b>835</b>
<i>Total Home Based Work Attraction VMT</i>	<b>1,363</b>	<b>1,363</b>
<i>Total Home Based VMT Per Capita</i>	<b>3.6</b>	<b>3.6</b>
<i>Total Work Based VMT Per Employee</i>	<b>6.7</b>	<b>6.7</b>

## VMT Calculator User Agreement

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

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

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

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

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

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

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



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

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

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

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

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

You, the User	
By:	_____
Print Name:	<u>LIZ FLEMING</u>
Title:	<u>V.P.</u>
Company:	<u>OVERLAND TRAFFIC CONSULTANTS</u>
Address:	<u>952 MANHATTAN BCH BL, #100</u>
Phone:	<u>310 545-1235</u>
Email Address:	<u>LIZ@OVERLAND TRAFFIC.COM</u>
Date:	<u>7-15-21</u>

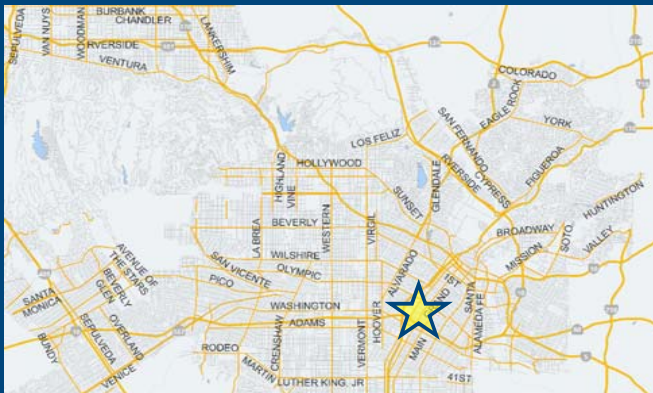
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project: Morrison Project Alternative 3  
 Scenario: Morrison Preservation - Hotel Use [WWW](#)  
 Address: 1246 S HOPE ST, 90015



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[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
Retail   Quality Restaurant	9.862	ksf
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   General Retail	7.775	ksf
Retail   Quality Restaurant	9.862	ksf

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

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	3,452 Daily Vehicle Trips
0 Daily VMT	21,182 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	3,452 Net Daily Trips
The net increase in daily VMT ≤ 0	21,182 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	17.637 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

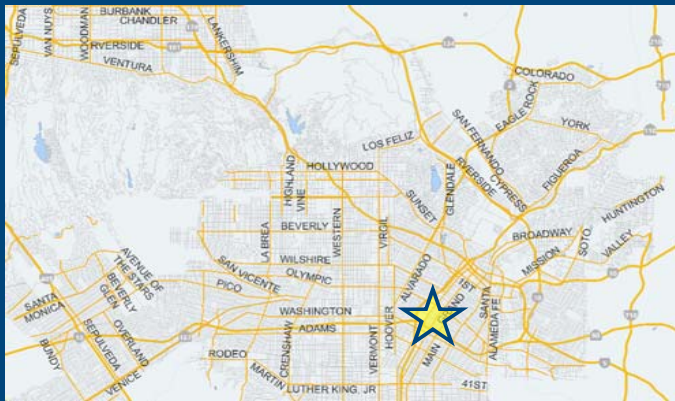


## Project Information

**Project:** Morrison Project Alternative 3

**Scenario:** Morrison Preservation - Hotel Use

**Address:** 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	136	DU
Housing   Hotel	444	Rooms
Retail   General Retail	7.775	ksf
Retail   Quality Restaurant	9.862	ksf

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

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

**A** **Parking**

Reduce Parking Supply: 250 city code parking provision for the project site  
 Proposed Prj  Mitigation 222 actual parking provision for the project site

Unbundle Parking: 0 monthly parking cost (dollar) for the project site  
 Proposed Prj  Mitigation

Parking Cash-Out: 0 percent of employees eligible  
 Proposed Prj  Mitigation

Price Workplace Parking: 6.00 daily parking charge (dollar)  
 Proposed Prj  Mitigation 50 percent of employees subject to priced parking

Residential Area Parking Permits: 200 cost (dollar) of annual permit  
 Proposed Prj  Mitigation

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

## Analysis Results

Proposed Project	With Mitigation
<b>3,239</b> Daily Vehicle Trips	<b>3,239</b> Daily Vehicle Trips
<b>19,872</b> Daily VMT	<b>19,872</b> Daily VMT
<b>3.9</b> Household VMT per Capita	<b>3.9</b> Household VMT per Capita
<b>7.2</b> Work VMT per Employee	<b>7.2</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 20, 2021

Project Name: Morrison Project Alternative 3

Project Scenario: Morrison Preservation - Hotel Use

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information			
	Land Use Type	Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	136	DU
	<i>Townhouse</i>	0	DU
	<b>Hotel</b>	444	Rooms
	<i>Motel</i>	0	Rooms
<i>Affordable Housing</i>	<i>Family</i>	0	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<b>General Retail</b>	7.775	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<i>High-Turnover Sit-Down</i>	0.000	ksf
	<i>Restaurant</i>	0.000	ksf
	<i>Fast-Food Restaurant</i>	0.000	ksf
	<b>Quality Restaurant</b>	9.862	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<i>Movie Theater</i>	0	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 20, 2021

Project Name: Morrison Project Alternative 3

Project Scenario: Morrison Preservation - Hotel Use

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 277			
Total Population: 306			
<b>Proposed Project</b>		<b>With Mitigation</b>	
3,239	Daily Vehicle Trips	3,239	Daily Vehicle Trips
19,872	Daily VMT	19,872	Daily VMT
3.9	Household VMT per Capita	3.9	Household VMT per Capita
7.2	Work VMT per Employee	7.2	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No



TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	250	250
		Actual parking provision (spaces)	222	222
	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)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 3  
 Project Scenario: Morrison Preservation - Hotel Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 3  
 Project Scenario: Morrison Preservation - Hotel Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

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





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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 3

Project Scenario: Morrison Preservation - Hotel Use

Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Parking</b>	Reduce parking supply	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	
	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%	
<b>Transit</b>	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%	
<b>Education &amp; Encouragement</b>	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%	
<b>Commute Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 3  
 Project Scenario: Morrison Preservation - Hotel Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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
<b>COMBINED TOTAL</b>		6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
<b>MAX. TDM EFFECT</b>		6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  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 20, 2021

Project Name: Morrison Project Alternative 3  
 Project Scenario: Morrison Preservation - Hotel Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	122	-27.9%	88	6.5	793	572
Home Based Other Production	338	-53.8%	156	4.4	1,487	686
Non-Home Based Other Production	753	-9.7%	680	7.2	5,422	4,896
Home-Based Work Attraction	402	-33.6%	267	8.0	3,216	2,136
Home-Based Other Attraction	3,414	-50.5%	1,691	5.5	18,777	9,301
Non-Home Based Other Attraction	634	-10.1%	570	6.3	3,994	3,591

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-6.2%	83	537	-6.2%	83	537
Home Based Other Production	-6.2%	146	644	-6.2%	146	644
Non-Home Based Other Production	-6.2%	638	4,593	-6.2%	638	4,593
Home-Based Work Attraction	-6.2%	251	2,004	-6.2%	251	2,004
Home-Based Other Attraction	-6.2%	1,586	8,725	-6.2%	1,586	8,725
Non-Home Based Other Attraction	-6.2%	535	3,369	-6.2%	535	3,369

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 306

Total Employees: 277

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>1,181</b>	<b>1,181</b>
<i>Total Home Based Work Attraction VMT</i>	<b>2,004</b>	<b>2,004</b>
<i>Total Home Based VMT Per Capita</i>	<b>3.9</b>	<b>3.9</b>
<i>Total Work Based VMT Per Employee</i>	<b>7.2</b>	<b>7.2</b>

## VMT Calculator User Agreement

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

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

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

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

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

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

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

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

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

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

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

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

You, the User	
By:	_____
Print Name:	<u>LIZ FLEMING</u>
Title:	<u>V.P.</u>
Company:	<u>OVERLAND TRAFFIC CONSULTANTS</u>
Address:	<u>952 MANHATTAN BCH BL, #100</u>
Phone:	<u>310 545-1235</u>
Email Address:	<u>LIZ@OVERLAND TRAFFIC.COM</u>
Date:	<u>7-15-21</u>

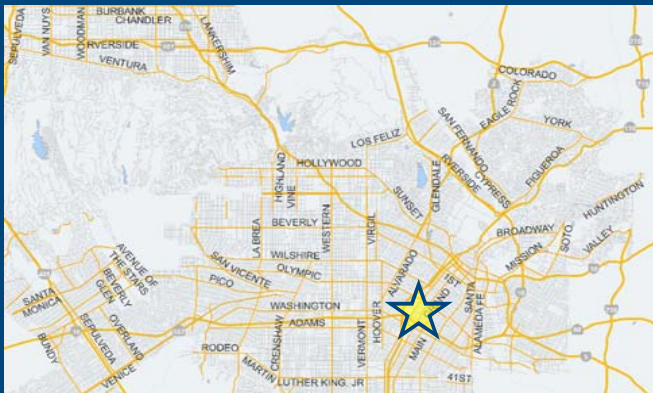
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project: Morrison Project Alternative 4  
 Scenario: Morrison Preservation - Office Use [WWW](#)  
 Address: 1246 S HOPE ST, 90015



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[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
Retail   Quality Restaurant	9.862	ksf
Housing   Multi-Family	136	DU
Housing   Hotel	270	Rooms
Retail   General Retail	7.775	ksf
Retail   Quality Restaurant	9.862	ksf
Office   General Office	36.532	ksf

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

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	2,893 Daily Vehicle Trips
0 Daily VMT	18,060 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	2,893 Net Daily Trips
The net increase in daily VMT ≤ 0	18,060 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	17.637 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

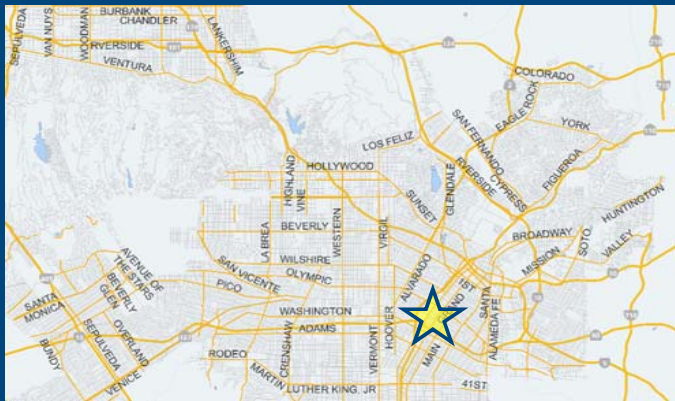


## Project Information

**Project:** Morrison Project Alternative 4

**Scenario:** Morrison Preservation - Office Use

**Address:** 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	136	DU
Housing   Hotel	270	Rooms
Retail   General Retail	7.775	ksf
Retail   Quality Restaurant	9.862	ksf
Office   General Office	36.532	ksf

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

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

**A** **Parking**

Reduce Parking Supply: 258 city code parking provision for the project site  
 Proposed Prj  Mitigation 241 actual parking provision for the project site

Unbundle Parking: 0 monthly parking cost (dollar) for the project site  
 Proposed Prj  Mitigation

Parking Cash-Out: 0 percent of employees eligible  
 Proposed Prj  Mitigation

Price Workplace Parking: 6.00 daily parking charge (dollar)  
 Proposed Prj  Mitigation 50 percent of employees subject to priced parking

Residential Area Parking Permits: 200 cost (dollar) of annual permit  
 Proposed Prj  Mitigation

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

## Analysis Results

Proposed Project	With Mitigation
<b>2,780</b> Daily Vehicle Trips	<b>2,780</b> Daily Vehicle Trips
<b>17,356</b> Daily VMT	<b>17,356</b> Daily VMT
<b>3.9</b> Household VMT per Capita	<b>3.9</b> Household VMT per Capita
<b>7.4</b> Work VMT per Employee	<b>7.4</b> Work VMT per Employee

Significant VMT Impact?	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC





# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 20, 2021

Project Name: Morrison Project Alternative 4

Project Scenario: Morrison Preservation - Office Use

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information			
Land Use Type		Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	136	DU
	<i>Townhouse</i>	0	DU
	<b>Hotel</b>	270	Rooms
	<i>Motel</i>	0	Rooms
<i>Affordable Housing</i>	<i>Family</i>	0	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<b>General Retail</b>	7.775	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<i>High-Turnover Sit-Down</i>	0.000	ksf
	<i>Restaurant</i>	0.000	ksf
	<i>Fast-Food Restaurant</i>	0.000	ksf
	<b>Quality Restaurant</b>	9.862	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<i>Movie Theater</i>	0	Seats
<b>Office</b>	<b>General Office</b>	36.532	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>	0	Trips	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 20, 2021

Project Name: Morrison Project Alternative 4

Project Scenario: Morrison Preservation - Office Use

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 336			
Total Population: 306			
<b>Proposed Project</b>		<b>With Mitigation</b>	
2,780	Daily Vehicle Trips	2,780	Daily Vehicle Trips
17,356	Daily VMT	17,356	Daily VMT
3.9	Household VMT per Capita	3.9	Household VMT per Capita
7.4	Work VMT per Employee	7.4	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No



TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	258	258
		Actual parking provision (spaces)	241	241
	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)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 4  
 Project Scenario: Morrison Preservation - Office Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 4  
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Version 1.3

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



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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 4  
 Project Scenario: Morrison Preservation - Office Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Parking</b>	Reduce parking supply	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
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%	
<b>Transit</b>	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%	
<b>Education &amp; Encouragement</b>	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%	
<b>Commute Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 20, 2021

Project Name: Morrison Project Alternative 4  
 Project Scenario: Morrison Preservation - Office Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	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%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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
	<b>COMBINED TOTAL</b>	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
<b>MAX. TDM EFFECT</b>	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  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 20, 2021

Project Name: Morrison Project Alternative 4  
 Project Scenario: Morrison Preservation - Office Use  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	122	-29.5%	86	6.5	793	559
Home Based Other Production	338	-53.3%	158	4.4	1,487	695
Non-Home Based Other Production	672	-9.8%	606	7.2	4,838	4,363
Home-Based Work Attraction	487	-33.5%	324	8.0	3,896	2,592
Home-Based Other Attraction	2,473	-50.5%	1,224	5.5	13,602	6,732
Non-Home Based Other Attraction	552	-10.3%	495	6.3	3,478	3,119

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-3.9%	83	537	-3.9%	83	537
Home Based Other Production	-3.9%	152	668	-3.9%	152	668
Non-Home Based Other Production	-3.9%	582	4,193	-3.9%	582	4,193
Home-Based Work Attraction	-3.9%	311	2,491	-3.9%	311	2,491
Home-Based Other Attraction	-3.9%	1,176	6,470	-3.9%	1,176	6,470
Non-Home Based Other Attraction	-3.9%	476	2,997	-3.9%	476	2,997

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 306

Total Employees: 336

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>1,205</b>	<b>1,205</b>
<i>Total Home Based Work Attraction VMT</i>	<b>2,491</b>	<b>2,491</b>
<i>Total Home Based VMT Per Capita</i>	<b>3.9</b>	<b>3.9</b>
<i>Total Work Based VMT Per Employee</i>	<b>7.4</b>	<b>7.4</b>

## VMT Calculator User Agreement

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

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

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

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

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

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

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

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

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

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

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

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

You, the User	
By:	_____
Print Name:	<u>LIZ FLEMING</u>
Title:	<u>V.P.</u>
Company:	<u>OVERLAND TRAFFIC CONSULTANTS</u>
Address:	<u>952 MANHATTAN BCH BL, #100</u>
Phone:	<u>310 545-1235</u>
Email Address:	<u>LIZ@OVERLANDTRAFFIC.COM</u>
Date:	<u>7-15-21</u>

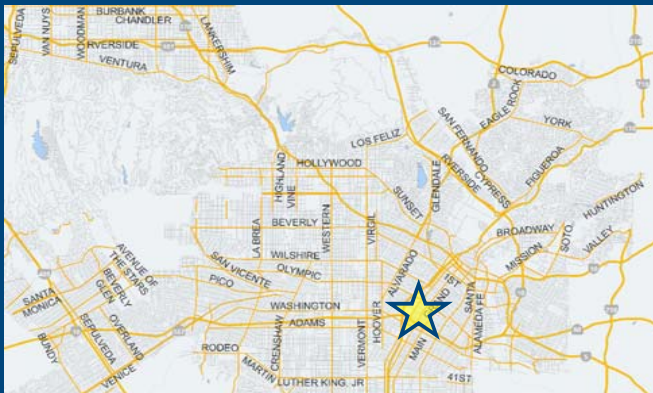
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



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

## Project Information

Project: Morrison Alternative 5  
 Scenario: Morrison DTLA Compliant [WWW](#)  
 Address: 1246 S HOPE ST, 90015



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

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[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
Retail   Movie Theater	585	Seats
Housing   Multi-Family	159	DU
Housing   Hotel	518	Rooms
Retail   High-Turnover Sit-Down Restaurant	6.055	ksf
Retail   Quality Restaurant	12.856	ksf
Retail   Movie Theater	585	Seats

[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
0 Daily Vehicle Trips	4,434 Daily Vehicle Trips
0 Daily VMT	27,214 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	4,434 Net Daily Trips
The net increase in daily VMT ≤ 0	27,214 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	603.911 ksf
<b>The proposed project is required to perform VMT analysis.</b>	

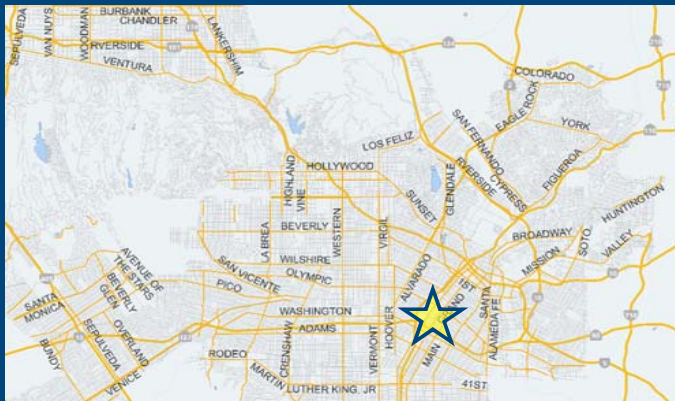


# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



## Project Information

Project: Morrison Alternative 5  
 Scenario: Morrison DTLA Compliant  
 Address: 1246 S HOPE ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	159	DU
Housing   Hotel	518	Rooms
Retail   High-Turnover Sit-Down Restaurant	6.055	ksf
Retail   Quality Restaurant	12.856	ksf
Retail   Movie Theater	585	Seats

## 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

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

**A** **Parking**

Reduce Parking Supply:  Proposed Prj  Mitigation. Value: 0. Description: city code parking provision for the project site.

Unbundle Parking:  Proposed Prj  Mitigation. Value: 0. Description: monthly parking cost (dollar) for the project site.

Parking Cash-Out:  Proposed Prj  Mitigation. Value: 0. Description: percent of employees eligible.

Price Workplace Parking:  Proposed Prj  Mitigation. Value: 6.00. Description: daily parking charge (dollar).

Residential Area Parking Permits:  Proposed Prj  Mitigation. Value: 200. Description: cost (dollar) of annual permit.

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

## Analysis Results

Proposed Project	With Mitigation
<b>4,405</b> Daily Vehicle Trips	<b>4,405</b> Daily Vehicle Trips
<b>27,044</b> Daily VMT	<b>27,044</b> Daily VMT
<b>4.1</b> Household VMT per Capita	<b>4.1</b> Household VMT per Capita
<b>7.6</b> Work VMT per Employee	<b>7.6</b> Work VMT per Employee

Significant VMT Impact?	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: No</b> Threshold = 7.6 15% Below APC	<b>Work: No</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 15, 2021

Project Name: Morrison Alternative 5

Project Scenario: Morrison DTLA Compliant

Project Address: 1246 S HOPE ST, 90015



Version 1.3

Project Information			
Land Use Type		Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	159	DU
	<i>Townhouse</i>	0	DU
	<b>Hotel</b>	518	Rooms
	<i>Motel</i>	0	Rooms
<i>Affordable Housing</i>	<i>Family</i>	0	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<i>General Retail</i>	0.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<b>High-Turnover Sit-Down Restaurant</b>	6.055	ksf
	<i>Fast-Food Restaurant</i>	0.000	ksf
	<b>Quality Restaurant</b>	12.856	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<b>Movie Theater</b>	585	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: July 15, 2021

Project Name: Morrison Alternative 5

Project Scenario: Morrison DTLA Compliant

Project Address: 1246 S HOPE ST, 90015



Version 1.3

<b>Analysis Results</b>			
Total Employees: 346			
Total Population: 358			
<b>Proposed Project</b>		<b>With Mitigation</b>	
4,405	Daily Vehicle Trips	4,405	Daily Vehicle Trips
27,044	Daily VMT	27,044	Daily VMT
4.1	Household VMT per Capita	4.1	Household VMT per Capita
7.6	Work VMT per Employee	7.6	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 15, 2021

Project Name: Morrison Alternative 5  
 Project Scenario: Morrison DTLA Compliant  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	<i>Reduce parking supply</i>	<i>City code parking provision (spaces)</i>	0	0
		<i>Actual parking provision (spaces)</i>	0	0
	<i>Unbundle parking</i>	<i>Monthly cost for parking (\$)</i>	\$0	\$0
	<i>Parking cash-out</i>	<i>Employees eligible (%)</i>	0%	0%
	<i>Price workplace parking</i>	<i>Daily parking charge (\$)</i>	\$0.00	\$0.00
		<i>Employees subject to priced parking (%)</i>	0%	0%
	<i>Residential area parking permits</i>	<i>Cost of annual permit (\$)</i>	\$0	\$0
(cont. on following page)				



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 15, 2021

Project Name: Morrison Alternative 5  
 Project Scenario: Morrison DTLA Compliant  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: July 15, 2021

Project Name: Morrison Alternative 5

Project Scenario: Morrison DTLA Compliant

Project Address: 1246 S HOPE ST, 90015



Version 1.3

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



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

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 15, 2021

Project Name: Morrison Alternative 5  
 Project Scenario: Morrison DTLA Compliant  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Parking</b>	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Unbundle parking	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Parking 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%	
<b>Transit</b>	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%	
<b>Education &amp; Encouragement</b>	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%	
<b>Commute Trip Reductions</b>	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%	
<b>Shared Mobility</b>	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%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: July 15, 2021

Project Name: Morrison Alternative 5  
 Project Scenario: Morrison DTLA Compliant  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	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
<b>COMBINED TOTAL</b>		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
<b>MAX. TDM EFFECT</b>		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  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 15, 2021

Project Name: Morrison Alternative 5  
 Project Scenario: Morrison DTLA Compliant  
 Project Address: 1246 S HOPE ST, 90015



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	143	-28.7%	102	6.5	930	663
Home Based Other Production	395	-53.9%	182	4.4	1,738	801
Non-Home Based Other Production	973	-9.8%	878	7.2	7,006	6,322
Home-Based Work Attraction	502	-33.7%	333	8.0	4,016	2,664
Home-Based Other Attraction	4,423	-50.5%	2,190	5.5	24,327	12,045
Non-Home Based Other Attraction	834	-10.2%	749	6.3	5,254	4,719

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-0.6%	101	659	-0.6%	101	659
Home Based Other Production	-0.6%	181	796	-0.6%	181	796
Non-Home Based Other Production	-0.6%	872	6,282	-0.6%	872	6,282
Home-Based Work Attraction	-0.6%	331	2,647	-0.6%	331	2,647
Home-Based Other Attraction	-0.6%	2,176	11,970	-0.6%	2,176	11,970
Non-Home Based Other Attraction	-0.6%	744	4,690	-0.6%	744	4,690

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 358

Total Employees: 346

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>1,455</b>	<b>1,455</b>
<i>Total Home Based Work Attraction VMT</i>	<b>2,647</b>	<b>2,647</b>
<i>Total Home Based VMT Per Capita</i>	<b>4.1</b>	<b>4.1</b>
<i>Total Work Based VMT Per Employee</i>	<b>7.6</b>	<b>7.6</b>

## VMT Calculator User Agreement

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

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

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

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

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

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

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

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

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

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

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

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

You, the User	
By:	_____
Print Name:	<u>LIZ FLEMING</u>
Title:	<u>V.P.</u>
Company:	<u>OVERLAND TRAFFIC CONSULTANTS</u>
Address:	<u>952 MANHATTAN BCH BL, #100</u>
Phone:	<u>310 545-1235</u>
Email Address:	<u>LIZ@OVERLANDTRAFFIC.COM</u>
Date:	<u>7-15-21</u>