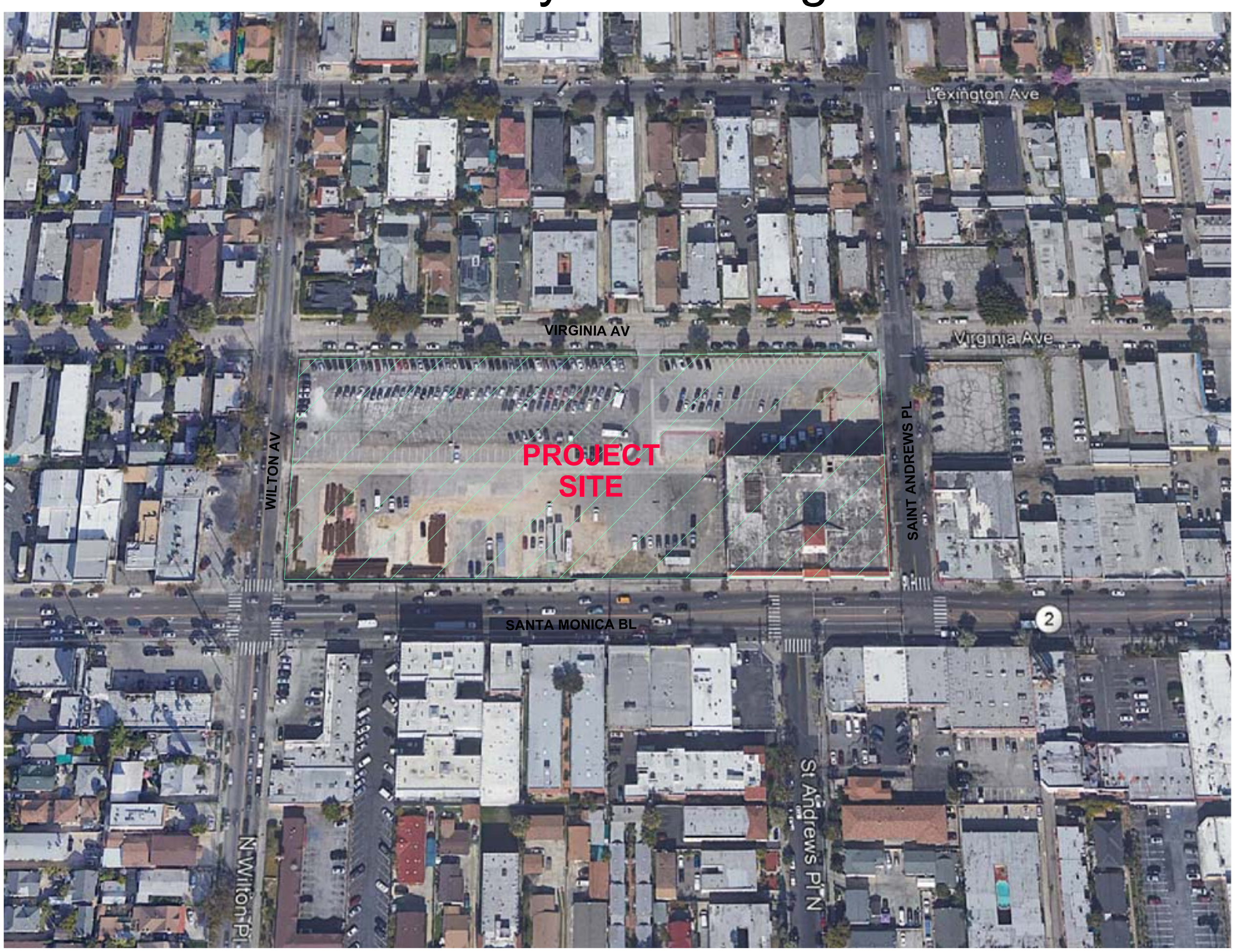
INITIAL STUDY

APPENDIX J: TRAFFIC ASSESSMENT

Overland Traffic Consultants, Inc.

TRAFFIC ASSESSMENT FOR ECHELON STUDIOS

Located at
5601 - 5673 W. Santa Monica Boulevard,
5612 - 5672 W. Virgina Avenue, &
1110 - 1118 N. Wilton Place
in the Hollywood
Community Plan Area
of the City of Los Angeles



Prepared by:
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(310) 545-1235

August 2022
(corrections 1-17-23)

TRANSPORTATION ASSESSMENT
ECHELON STUDIOS

Located at 5601-5673 West Santa Monica Boulevard,
5612-5672 West Virginia Avenue,
and 1110-1118 North Wilton Place
in the Hollywood Community Plan Area
of the City of Los Angeles

Prepared by:

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EXECUTIVE SUMMARY

Introduction

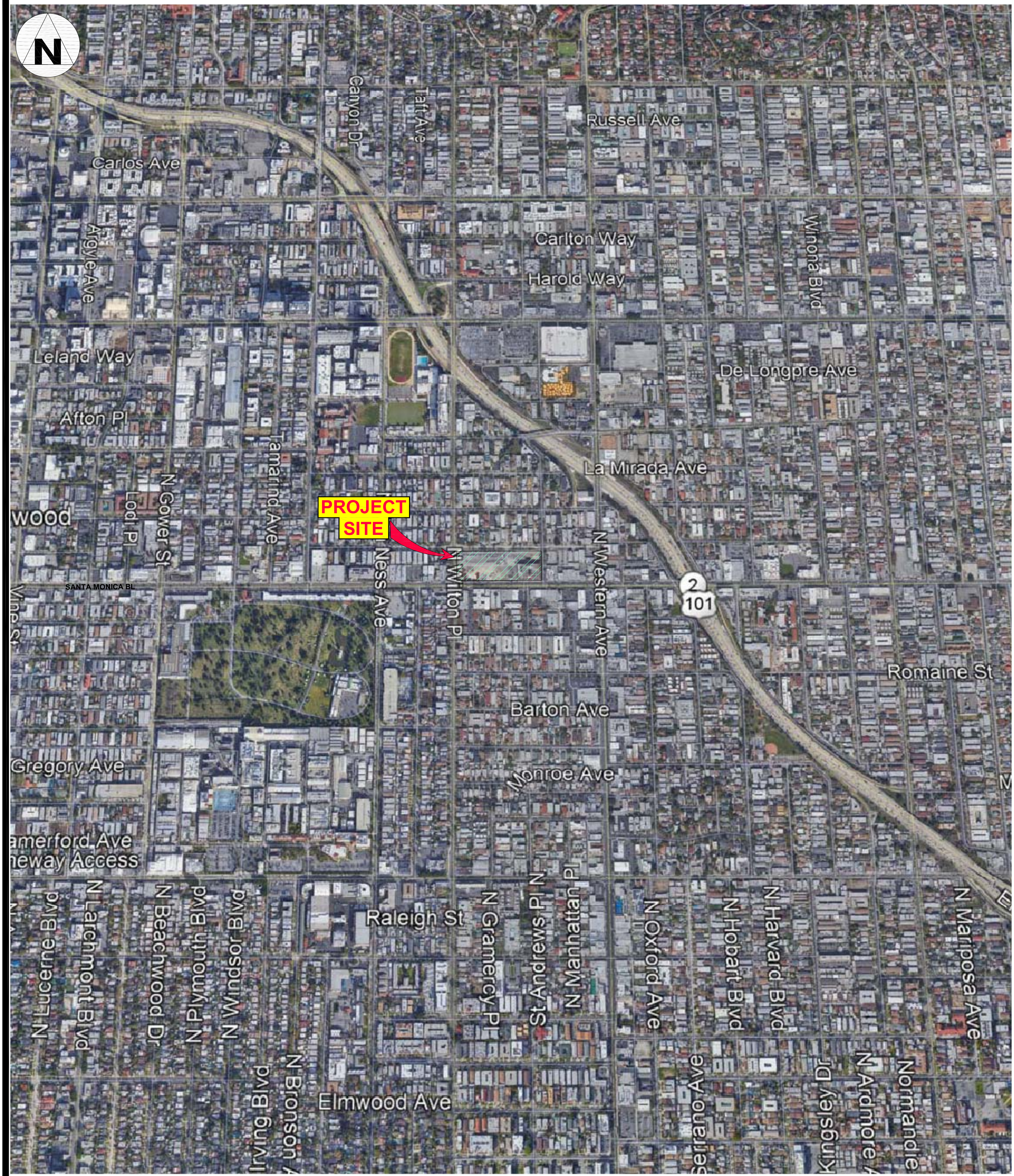
Overland Traffic Consultants has prepared this assessment of the potential CEQA transportation impacts for a proposed mixed-use project located at 5601-5673 West Santa Monica Boulevard, 5612-5672 West Virginia Avenue, and 1110-1118 North Wilton Place (Project) in the Hollywood Community Area of the City of Los Angeles. The Project Site spans from Santa Monica Boulevard to Virginia Avenue and from Wilton Place to Saint Andrews Place. The aerial view of the Project Site's location is provided on the following page.

Project Description

The Project includes the removal of the existing 98,352 square foot building which was previously was used by Sears. New construction includes 91,870 square feet of production stages/studios, 18,087 square feet of stage support area (which includes 11,468 square feet of mill area and 6,619 square feet of production office), 12,378 square feet of restaurant, and 388,286 square feet of creative office.

Project Parking and Access

The Project proposes a total of 981 vehicle parking spaces in two subterranean levels. A total of 99 vehicle parking spaces would be provided with electric vehicle (EV) charging stations (approximately 10% of parking) and an additional 196 spaces (approximately 20% of the parking) would be EV ready. Vehicle access would be provided from 6 driveways. There would be no driveways on West Santa Monica Boulevard. Two driveways would be provided on the east side of North Wilton Place. The southern driveway would be a circular drop off area for the creative office and restaurant uses. The northern driveway would provide access down to the P1 level for the creative office and restaurant uses. Due to the Avenue III roadway designation, mirrors, visual and audio alerts of exiting vehicles is proposed along North Wilton Place. Two driveways would be provided on the south side of West Virginia Avenue. Both driveways would provide access to studio vehicle parking and loading. Vehicle parking



PROJECT SETTING

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would also be provided from the west side of North Saint Andrews Place with two driveways. The north driveway would provide access to the P1 level for the creative office and restaurant uses. The south driveway would provide access to a second drop-off/pick-up area. The Project would be required to provide, and would provide, a minimum of 162 bicycle parking spaces (56 short term and 106 long term). In addition, 10 showers (5 per gender) and 162 lockers would be provided.

Transportation Assessment CEQA and NON – CEQA Review

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

The new CEQA Guidelines for evaluating transportation impacts no longer focus on measuring automobile delay and level of service (LOS). Instead, SB 743 directed 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.

The July 2020 Los Angeles Department of Transportation (LADOT) Traffic Assessment Guidelines (TAG) is the city document providing guidance for conducting both CEQA and non-CEQA transportation analyses for land development projects. The TAG identifies three CEQA thresholds for identifying significant transportation impacts that are applicable to the Project.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

The City's adopted process also requires additional non-CEQA analysis and review for land development projects. The purpose of this review is to evaluate how projects affect vehicular access, circulation, and safety for all users of the transportation system. A Memorandum of Understanding (MOU) was prepared and approved by LADOT establishing the traffic assessment parameters for the study. A copy of the MOU is provided in Appendix A.

Transportation Demand Management (TDM) Program

The proposed Project is a commercial project without any residences. Therefore, no significant Household impact per Capita would be created. This commercial Project would include reduced parking, bike parking, secure bike lockers and shower amenities as a part of the Project's design features. The proposed Project with inclusion of these Project Design Features would create no significant Work VMT impacts. These strategies, as described by LADOT'S TAG, are listed below:

PROJECT DESIGN FEATURES

- REDUCED PARKING SUPPLY – This strategy changes the Project's parking supply to provide less than the amount of vehicle parking required by direct application of the LAMC requirements without consideration of parking reduction permitted in the code. Per direct application of the LAMC, the Project would be required to provide 1,012 parking spaces. The Project will apply reductions through replacement of each vehicle space with 4 bicycle spaces for a total of 981 vehicle parking spaces.
- BICYCLE INFRASTRUCTURE – Include Bike Parking per Los Angeles Municipal Code (LAMC) - This strategy involves implementation of short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations under existing LAMC regulations applicable to the Project. The Project is required to, and will provide, a minimum of 162 (106 long term and 56 short term) bicycle parking spaces.
- BICYCLE INFRASTRUCTURE – Include Bike Parking and Showers - This strategy involves implementation of additional end of trip bicycle facilities to support safe and comfortable bicycle travel by providing amenities at the Project. This Project will

provide up to 10 showers (5 per gender) along with 162 lockers.

The proposed Project, with inclusion of these Project Design Features, creates no significant Work VMT impacts. No CEQA mitigation is required for the Project.

Findings

Based on the following review discussed in Chapters 2 and 3, no significant CEQA impacts were identified. No safety deficiencies were identified. However, potential circulation and access deficiencies (non-CEQA) were identified at study intersections without and with the Project. These include high level of service (LOS E or F) and/or overflow of traffic in turning lanes.

- La Mirada Avenue & Wilton Place – High LOS
- St. Andrews Place & Santa Monica Boulevard - Overflow of traffic in westbound left turn lane and overflow of traffic in eastbound left turn lane
- Lexington Avenue & Southbound 101 Freeway Off ramp – High LOS
- Santa Monica Boulevard & Western Avenue – High LOS, overflow of traffic in the northbound left turn lane, and overflow of traffic in the westbound left turn lane

These deficiencies occur both without and with the Project.

The Bureau of Engineering (BOE)/ Department of City Planning (DCP) Planning Case Referral Form (PCRF) details street classifications per the Mobility Plan 2035, current street dedications and widths and the street dedication and improvement requests of the Project. Pursuant to LAMC Section 12.37-I.4, the Project is seeking waiver of required dedications and improvements along the following Project frontages:

- Santa Monica Boulevard – 12-foot dedication and 7-foot widening;
- Wilton Place – 8-foot dedication and 5-foot widening;
- Alley – 2-foot dedication and widening on each side of the alley;
- Santa Monica Boulevard/Wilton Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;

- Wilton Place/Virginia Avenue – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;
- Virginia Avenue/St. Andrews Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;
- Santa Monica Boulevard/St. Andrews Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut.

However, the dedications and widening are not currently necessary to meet the City's mobility needs and would disrupt street frontages and potentially create hazardous situations. The Project requests to maintain the current dedications and roadways to provide a cohesive pedestrian experience. Additionally, the BOE PCRF required a 2-foot dedication on each side of the alley that runs east-west and north-south through the Project Site. However, the Project is requesting to vacate the entire alley as a part of the Project so that the Project can be constructed on the entire city block. The BOE PCRF required widening and dedications are unlikely on neighboring properties. Discontinues improvements does not yield practical benefits to the City's mobility needs and may hinder movement with street frontages that are not uniform. The Developer proposes to cover the entire City block and is applying to merge the alley, so the Project is a unified campus setting project.

Potential conflicts with other proposed land development 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.

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The Project Site is located on the city block of Santa Monica to the south, Wilton Place to the west, Virginia Avenue to the north and St. Andrews Place to the east. The location of the Project Site is provided on Figure 1.

The Project would include the removal of the existing 98,352 square foot building which was previously was used by Sears. New construction would provide 510,621 square feet of production studios, offices, restaurants, and related accessory uses. The Project would provide. 91,870 square feet of production stages/studios with 4 stages/studios and one flex space, 18,087 square feet of stage support area(which includes 11,468 square feet of mill area and 6,619 square feet of production office)12,378 square feet of restaurant and 388,286 square feet of creative office. These uses would be provided in two 6 story towers, 1 story sound stages and 2 story bungalows over parking.

<u>Project Vehicle Parking and Access</u>

Vehicle Parking - Los Angeles Municipal Code (LAMC) Section 12.21-A.4(x)(3) requires 2 vehicle parking spaces per 1,000 square feet for a total of 1,021 parking spaces. LAMC 12.21-A4 allows for permissible reductions in vehicle parking spaces to be replaced with bicycle parking at a ratio of four bicycle spaces per vehicle parking space, The Project proposes to reduce vehicle parking by 40 spaces (approximately 4%) through this permissible reduction. The Project would provide 981 parking spaces on two subterranean levels. The P1 level would provide 355 parking spaces and the P2 level will provide 626 spaces. The Project would provide for electric vehicle parking by providing 99 EV charging stations and 196 EV ready parking spaces. Vehicle access would be provided via two driveways on the east side of Wilton Place. The southern driveway would be a circular drop off area for the creative office and restaurant uses. The northern driveway would provide access down to the P1 level for the creative office and restaurant uses. Due to the Avenue III roadway designation, mirrors, visual and audio alerts of exiting vehicles is proposed along North Wilton Place. Two driveways would be provided on the south side of Virginia Avenue. Both driveways would provide for studio vehicle parking and loading. Vehicle parking would also be provided from the west side of North Saint Andrews Place with two driveways. The north driveway would provide access to the P1 level for the creative office and restaurant uses. There would be no driveways on Santa Monica Boulevard.

Bike Parking - The Project would be required to provide a total of 162 bicycle parking spaces (56 short term and 106 long term) with 1 long term per 5,000 square feet and 1 short term space per 10,000 square feet for the studios and creative office construction. The restaurant requires 1 long term and 1 short term bicycle parking space per 2,000 square feet. The Project would provide, at a minimum, 162 commercial bicycle parking spaces with 56 short term bicycle parking spaces and 106 long term bicycle parking places. In addition, 162 lockers and up to 10 showers with 5 per gender would be provided.

Figure 2 illustrates the Project Site plan.

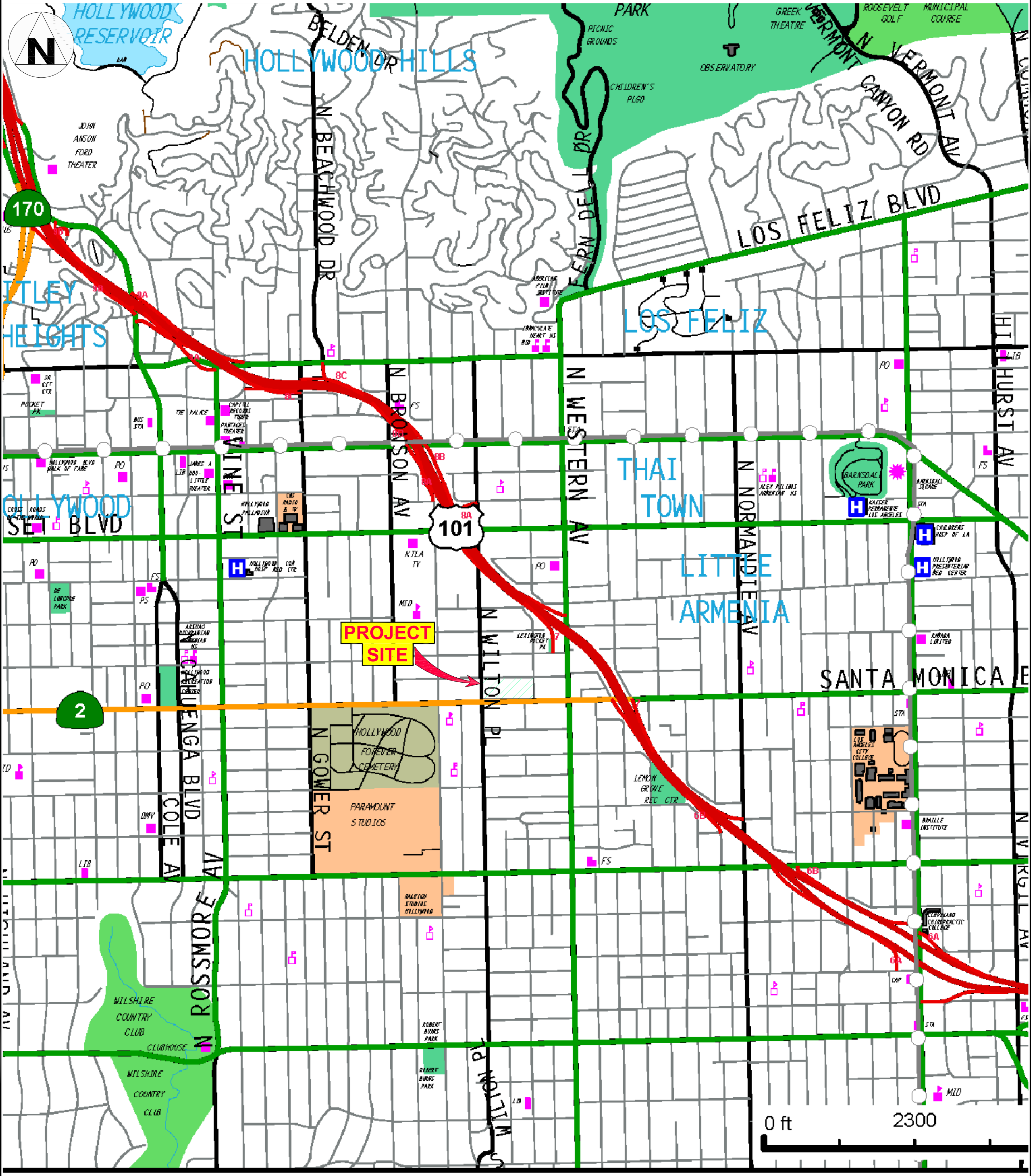

FIGURE 1

8/2022

PROJECT LOCATION

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FIGURE 2

8/2022

PROJECT SITE PLAN

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The scope for this study was reviewed and approved by LADOT in accordance with the City CEQA requirements as contained in the LADOT TAG, adopted in July 2020. A copy of the LADOT approved MOU is provided in Appendix A.

The TAG is the City document that establishes procedures and methods for conducting CEQA transportation analyses for land development projects. The TAG identifies three CEQA thresholds for identifying significant transportation impacts.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies;
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT);
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use.

Project Initial VMT Screening

This is the first step in evaluating whether conditions exist that might indicate an environmental impact. A project is reviewed through a series of screening criteria to determine whether further CEQA analysis is required to address the threshold questions.

If the development project requires a discretionary action, and the answer is yes to any of the following threshold questions, further analysis is required to assess whether the proposed project would negatively affect the transportation system for all travel modes including pedestrian, bicycle, or transit facilities

1. Does the Project involve a discretionary action that would be under review by the Department of Planning?

Yes, the Project is requesting a General Plan Amendment and Zone Change approval.

2. Would the Project generate a net increase of 250 or more daily vehicle trips?

Yes, using the LADOT VMT calculator (version 1.3) for screening purposes, the Project would generate an increase of 3,938 daily vehicle trips. TDM strategies are not considered in the screening criteria.

3. 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, according to the BOE PCRF and Mobility Element, Santa Monica Boulevard, which is designated in the Mobility Plan 2035 as a Modified Avenue I (requiring a 104-foot right-of-way and 74-foot roadway) would require a 12-foot dedication and 7-foot widening. Wilton Place which is designated in the Mobility Plan 2035 as a Modified Avenue III (requiring a 76-foot right-of-way and 50-foot roadway) would require an 8-foot dedication and 5-foot widening. A 15-foot by 15-foot corner cut or 20-foot radius cut would be required on the corners of Santa Monica Boulevard/Wilton Place, Wilton Place/Virginia Avenue, Virginia Avenue/St. Andrews Place, and St. Andrews Place/Santa Monica Boulevard. In addition, the east-west alley intersecting Wilton place and north-south alley intersecting Virginia Avenue between the boundaries of the site require a 2-foot dedication on each side of the alley.

However, the dedications and widening are not currently necessary to meet the City's mobility needs and would disrupt street frontages and potentially create hazardous situations. The Project requests to maintain the current dedications and roadways to provide a cohesive pedestrian experience. The BOE PCRF required widening and dedications are unlikely on neighboring properties. Discontinuous improvements do not yield practical benefits to the City's mobility needs and may hinder movement with street frontages that are not uniform. The Developer proposes to cover the entire City block and is applying to merge the alley, so the Project is a unified campus setting project. A waiver under LAMC 12.37 from noted dedication and improvements will be requested.

4. Is the Project's frontage along a street classified as an Avenue, Boulevard or Collector (as designated in the City's General Plan) 250 linear feet or more, or is

the Project's frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan)?

Yes, the frontage along Santa Monica Boulevard, which is designated as an Avenue I, is approximately 742 feet in length and the frontage along Wilton Place, which is designated as an Avenue III is approximately 289 feet in length.

5. Would the Project generate a net increase in daily VMT?

Yes, using the LADOT VMT calculator screening sheet, the Project would generate 27,585 daily VMT. TDM strategies are not considered in the screening criteria. Appendix D contains the VMT reports.

6. Would the Project be located within a one-half mile of a fixed-rail or fixed-guideway transit station and replace an existing number of residential units with a smaller number of residential units?

No, the location of the Project Site is not within a half mile of a fixed-rail or fixed-guideway transit station. There are not any existing residential units existing or proposed.

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

Yes, the site currently has 2 driveways on Wilton Place and one alley access, 1 alley access on Virginia Avenue and 1 driveway on St. Andrews Place. The Project proposes closure of the existing driveways and vacation of the two alleys. A new driveway is proposed on both Wilton Place and St. Andrews Place to on-site drop-off/pick up area parking. A second driveway from both Wilton Place and St. Andrews Place is proposed to the subterranean parking. Two driveways are proposed from Virginia Avenue for the studios. Currently there are five accesses to the site. In the future, with the proposed Project, there will be six.

8. Does the land use project include the construction of 50 dwelling units or guest rooms or combination thereof or 50,000 square feet of non-residential space?

Yes. The Project does not include any residential space but would remove the existing 98,352 square foot building which was previously was used by Sears and would construct 510,621 of production studios, offices, restaurants, and related accessory uses.

The TAG also provides screening criteria for consistency in accordance with CEQA Section 15064.3 subdivision (b)(2) on VMT impacts from Transportation Projects. The screening criteria for Transportation Projects is determined from the following question below.

<u>Criteria for Transportation Projects</u> - Would the Transportation Project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)?

Not Applicable - This analysis for Transportation Projects is not applicable to land development projects and the Project is not a transportation project because the Project is a land development project. Therefore, the transportation project analysis is not part of the Project's CEQA review.

Based on the Project VMT Initial Screening Criteria on pages 5 through 8 for land development projects, further analysis is required to assess whether the Project would negatively affect the transportation system. Screening criteria presented in the TAG document specific to each area of analysis is contained in Appendix B.

I. Conflicts with Plans, Programs, Ordinances or Policies (Threshold T-1)

To guide the City's Mobility Plan 2035, the City adopted programs, plans, ordinances, and policies that establish the transportation planning framework for all travel modes, including vehicular, transit, bicycle, and pedestrian facilities. Land development projects shall be evaluated for conformance with these City adopted transportation plans, programs, and policies.

Per the TAG guidelines, a project would not be shown to result in an impact merely based on whether a project would not implement a program, policy, or plan. Rather, it is the intention of this threshold test to ensure that proposed development does not conflict with nor preclude the City from implementing adopted programs, plans, and policies. Although the Project will not be providing roadway designated dedication and improvements, the improvements would not increase the number of lanes on the adjacent roadways. Instead, the Project proposes to maintain the current roadways and surrounding street character.

The TAG provides a list of key City plans, policies, programs, and ordinances for consistency review, see Table 1. Projects that generally conform with and do not conflict with the City's development policies and standards addressing the circulation system, will generally be considered consistent.

Table 1
Consistency Check with Key City Plans, Programs, Ordinances or Policies

TAG Table 2.1-1: City Documents that Establish the Regulatory Framework

	Plan or Policy	Consistent?	Notes	Preclude City Implementation?
1.	LA Mobility Plan 2035	No	Santa Monica Bl. - Modified Avenue I (requiring a 104-foot right-of-way and 74-foot roadway) would require a 12-foot dedication and 7-foot widening. Wilton Pl - Modified Avenue III (requiring a 76-foot right-of-way and 50-foot roadway) would require an 8-foot dedication and 5-foot widening. A 15-foot by 15-foot corner cut or 20-foot radius cut would be required on the corners of Santa Monica Boulevard/Wilton Place, Wilton Place/Virginia Avenue, Virginia Avenue/St. Andrews Place, and St. Andrews Place/Santa Monica Boulevard. In addition, the east-west alley intersecting Wilton place and north-south alley intersecting Virginia Avenue between the boundaries of the site require a 2-foot dedication on each side of the alley.	Yes
2.	Plan for Healthy LA	Yes	The Project would support Policy 5.7, Land Use Planning for Public Health and Greenhouse Gas (GHG) Emission Reduction, by reducing single-occupant vehicle trips by its proximity to transit service and on-site amenities for the employees. The Project would not conflict with other policies in the Plan for Healthy LA.	No
3.	Land Use Element of the General Plan (35 Community Plans)	Yes	The Project is in the Hollywood Community Plan area. The Project would be in substantial conformance with the purposes, intent, and provisions of the General Plan and the Community Plan.	No
4.	Specific Plans	Not Applicable	The Project is not within a Specific Plan area.	No
5.	LAMC Section 12.21A.16 (Bicycle Parking)	Yes	The Project would, at a minimum, comply with the required short- and long-term bicycle parking pursuant to LAMC Section 12.21. A.16.	No
6.	LAMC Section 12.26J (TDM Ordinance)	Yes	LAMC Section 12.26J for Transportation Demand Management and Trip Reduction Measures applies to the construction of new non-residential floor area greater than 25,000 sf. The Project would comply with this requirement.	No
7.	LAMC Section 12.37 (Waivers of Dedications and Improvement)	Yes	A waiver of dedication and improvements is requested for all dedications and improvements.	Yes

	Plan or Policy	Consistent?	Notes	Preclude City Implementation?
8.	Vision Zero Action Plan	Yes	The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way.	No
9.	Vision Zero Corridor Plan	Yes	The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way	No
10.	Citywide Design guidelines	Yes	Per Guideline 1-3 below.	No
	Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all	Yes	The Project would create a continuous and straight sidewalk clear of obstructions for pedestrian travel. The Project would provide adequate sidewalk width and right-of-way that accommodates pedestrian flow and activity. Pedestrian access would be provided at street level with direct access to the surrounding neighborhood and amenities.	No
	Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.	Yes	The Project would comply with the Citywide Design Guidelines incorporating vehicle access locations that do not discourage and/or inhibit the pedestrian experience. Vehicular access and parking are located on two local streets (Virginia Av. & Saint Andrews Pl.) and a Modified Avenue III (Wilton Place). Visual and audio alerts of exiting vehicles will be provided to pedestrians and cyclists along Wilton Place. The Project vehicular access would comply with driveway location standards. No vehicular access would be provided on Santa Monica Boulevard.	No
	Guideline 3: Design projects to actively engage with streets and public space and maintain human scale.	Yes	The building design would use attractive architectural elements. The Project would not preclude or conflict with the implementation of future streetscape projects in the public right-of-way.	No

As summarized above in Table 1, the Project would not conflict with most key City planning documents. The Bureau of Engineering (BOE)/ Department of City Planning (DCP Planning Case Referral Form (PCRF) details street classifications per the Mobility Plan 2035, current street dedications and widths and the street dedication and improvement requests of the Project. Pursuant to LAMC Section 12.37, the Project is seeking a waiver to dedicate and improve the following along the Project frontages:

- Santa Monica Boulevard – 12-foot dedication and 7-foot widening;
- Wilton Place – 8-foot dedication and 5-foot widening;
- Alley – 2-foot dedication and widening on each side of the alley;
- Santa Monica Boulevard/Wilton Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;
- Wilton Place/Virginia Avenue – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;
- Virginia Avenue/St. Andrews Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut;
- Santa Monica Boulevard/St. Andrews Place – dedication for 15-foot by 15-foot corner cut or 20-foot radius cut.

The waiver is requested as the dedications and widening are not currently necessary to meet the City's mobility needs and would disrupt street frontages and potentially create hazardous situations. The Project requests to maintain the current dedications and roadways.

The BOE PCRF-required widening and dedications are unlikely to be achieved on neighboring properties and the improvements would not extend the entire block. Discontinuous improvements do not yield practical benefits to the City's mobility needs and may hinder movement with street frontages that are not uniform. As the widening and dedication required along Santa Monica Boulevard and Wilton Place are unnecessary, would disrupt uniform street frontages and potentially create hazardous situations, the requirement to construct the 15-feet by 15-feet corner cut or a 20-foot radius cut on the corners of Santa Monica Boulevard/Wilton Place, Wilton Place/Virginia Avenue, Virginia Avenue/St. Andrews Place, and St. Andrews Place/Santa Monica Boulevard Place would be unnecessary. Instead, the Project requests to maintain the current corner cuts.

The TAG also provides a list of questions to guide the Project's consistency review. These questions and answers relative to the Project are provided in Appendix C of this report (D-1 of the LADOT TAG). As demonstrated in Appendix C, with approval of the requested waiver, the potential impacts would be less than significant. Improvements along these connecting segments of Santa Monica Boulevard and Wilton Place have not been made at this time and are not likely to be made in the near future.

Cumulative Consistency Check

Pursuant to the TAG, each of the plans, programs, ordinances, and policies to assess potential conflicts with proposed projects should be reviewed to assess cumulative impacts that may result from the Project in combination with other nearby development projects.

A cumulative impact could occur if the Project, with other future development projects located on the same block were to cumulatively preclude the City's ability to serve transportation user needs as defined by the City's transportation policy framework[1]. The results of the Project's VMT calculation (as shown in Appendix D) would not exceed the City's 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. No cumulative impact has been identified with this Project that would preclude the City's implementation of any transportation related policies, programs, or standards.

[1] *Framework includes LA Mobility Plan 2035, Plan for Healthy LA, Specific Plans, LAMC Section 12.21.a.16. LAMC Section 12.26J, Vision Zero Action Plan, Vision Zero Corridor Plans, Streetscape Plans, Citywide Design guidelines as noted in the LADOT July 2020 TAG page 2-3.*

Therefore, the Project would not have a significant transportation impact under CEQA Threshold T-1 (Conflicting with Plans, Programs, Ordinances, or Policies).

II. Causing Substantial Vehicle Miles Traveled (Threshold T - 2.1)

The intent of this threshold question is to assess whether a land development project causes a substantial VMT impact. CEQA Guidelines Section 15064.3(b) relates to use of VMT as the methodology for analyzing transportation impacts.

To address this question, LADOT's TAG identified significant VMT impact thresholds for each of seven Area Planning Commission (APC) sub-areas in the City. A project's VMT is compared against the City's APC threshold goals for household VMT per capita and work VMT per employee to evaluate the significance of the project's VMT.

A development project would 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 per TAG Table 2.2-1.

The Project is in the Central APC sub-area which limits daily household VMT per capita to a threshold value of above 6.0 and a daily work VMT per employee to a threshold value of above 7.6 (15% below the existing VMT for the Central APC).

As a Project design feature, the Project proposes to apply permissible reductions to the vehicle parking supply below what is required per LAMC, to provide a sufficient number of bicycle parking spaces to meet City of Los Angeles bicycle parking requirements per LAMC Section 12.21.A.16 with 56 short term bicycle parking spaces, 106 long term bicycles spaces, and to provide 10 showers and a total of 162 secure lockers.

Results of the Project's VMT calculation (as shown in Appendix D) provides an estimate based on the Project's land uses, size and TDM program strategies that are included as Project design features (i.e., reduced parking, bike parking per LAMC, showers and secure lockers). There would be no Project household VMT per capita impact because no housing is proposed. The Project's work VMT per employee is estimated as 6.6.

Thus, in summary, the Project does not propose any housing and therefore would not create a household VMT impact. The Project would not have a significant work VMT impact in the Central APC because the Project's daily work VMT per employee is calculated to be 6.6, which is below the CEQA Threshold T-2.1 (Causing Substantial Vehicle Miles Traveled) of above 7.6. There would be no remaining significant traffic impacts.

The Project's VMT analysis worksheets are provided in Appendix D.

TDM Program Project Design Features

Project Design Feature: The Project would include two TDM measures that reduce trips and VMT through TDM strategies and are included in the VMT analysis for the Project. These TDM project features, as described by LADOT'S TAG, are listed below:

- REDUCED PARKING SUPPLY – This strategy changes the Project's parking supply to provide less than the amount of vehicle parking required by direct application of the LAMC requirements without consideration of parking reduction permitted in the code. Per direct application of the LAMC for the Project would be required to provide 1,012 parking spaces. The Project would apply reductions through replacement of each vehicle space with 4 bicycle spaces for a total of 981 vehicle parking spaces.
- BICYCLE INFRASTRUCTURE – Include Bike Parking per LAMC - This strategy involves implementation of short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations under existing LAMC regulations applicable to the Project. The Project would be required to, and would provide, a minimum of 162 bicycle parking spaces.
- BICYCLE INFRASTRUCTURE – Include Bike Parking and Showers - This strategy involves implementation of additional end of trip bicycle facilities to support safe and comfortable bicycle travel by providing amenities at the Project. This Project would provide 10 showers and 162 secure lockers.

As stated in the City of Los Angeles VMT Calculator Documentation, May 2020 (Chapter 4, page 17), the effectiveness (reduction in Project VMT) of each TDM strategy/Project Design Feature included in the VMT Calculator is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010). No significant household or work impact is identified, and no mitigation is required of the Project.

Summary:

- Household VMT per Capita Threshold is above 6.0
- There would be NO residential component to the Project.
- NO HOUSEHOLD VMT IMPACT

- Work VMT per Employee Threshold is above 7.6
- Work VMT per Employee is 6.6 with Project Features
- NO WORK VMT IMPACT

Cumulative VMT Consistency Check

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 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.

As shown, the Project VMT impact would not exceed the City's Central APC VMT impact thresholds with mitigation and as such, the Project's contribution to the cumulative VMT impact is adequate to demonstrate there is no cumulative VMT impact.

III. Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use (Threshold T- 3.1)

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.

No deficiencies are apparent in the site access plans which would be considered significant. This determination considers the following factors:

1. No vehicular access is proposed on Santa Monica Boulevard, a designated Modified Avenue I roadway.
2. Vehicle access to the parking would be from the adjacent Local Streets of Virginia Avenue and St. Andrews Place and from the Modified Avenue III roadway of Wilton Place.
3. The Project would reduce the number of driveways on to the higher designated, and used roadway, of Wilton Place. By providing one fewer access on the more trafficked roadway, the Project would reduce the number of potential hazard points with pedestrians, cyclists, and other vehicles.
4. Due to the Avenue III roadway designation; mirrors, visual and audio alerts of exiting vehicles is proposed along North Wilton Place.
5. The Project street access would be consistent with LADOT driveway placement and location per LADOT Manual of Policies and Procedures, Section 321, Driveway Design.

The Project Site plans do not present any hazardous geometric design features. Therefore, the Project would not have a significant transportation impact under CEQA Threshold T-3.1 (Substantially Increasing Hazards Due to a Geometric Design Feature).

Cumulative Access Evaluation

According to the TAG, an evaluation of site access plans for related projects with access points proposed along the same blocks as the proposed project must be reviewed for potential cumulative access impacts.

The proposed Project would have vehicle access from Wilton Place, Virginia Avenue, and St. Andrews Place. No other related projects were identified along the same block in the Project area. No cumulative impacts were identified.

CHAPTER 3 NON-CEQA TRANSPORTATION ASSESSMENT

In addition to conducting a CEQA review of development projects pursuant to SB743, LAMC Section 16.05 (Site Plan Review) authorizes a non-CEQA transportation analysis of development projects to identify deficiencies that may occur in the area due to the project. Additional authority is sited in other discretionary processes (e.g. conditional use permits) where the City is required to make findings to support approval of development projects. LADOT retains the ability to impose development conditions to improve operational safety and access around a project site and to better assess how proposed projects may affect the City's transportation system under the non-CEQA assessment.

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. The Project Study Area is the area surrounding the Project Site where there is a potential to create a deficient operating condition or excessive queues that extend beyond the turning lane. Specifically, this Transportation Assessment evaluates conditions along Wilton Place, Saint Andrews Place, Western Avenue, La Mirada Avenue, Lexington Avenue, Virginia Avenue, and Santa Monica Boulevard.

To assist in the non-CEQA evaluation, the following information provides the environmental conditions in which the Project is located.

ENVIRONMENTAL SETTING

Land Use

The Project Site is in the Hollywood Community Plan area and located approximately 5 miles northwest of downtown Los Angeles. The Community Plan area is located predominately north of Melrose Avenue west of the City of West Hollywood, south of Mulholland Drive, Barham Boulevard and Forest Lawn Drive and west of the Silver Lake-Echo Park – Elysian Valley and the Northeast Los Angeles Community Plan areas. Appendix E contains the Hollywood Community Plan land use map.

Transportation Facilities

The City of Los Angeles has adopted the Mobility Plan 2035 as an update to the City's General Plan Transportation Element to incorporate the complete streets principles for integrating multi-mode transportation networks. The Mobility Plan 2035 dictates the street standards and designations for all users. Appendix F provides a map of the area roadway designations, roadway design standards and aerials of nearby signalized locations.

Pursuant to the City of Los Angeles Mobility Element, arterial roadways are designated as Boulevards and Avenues. Avenues may vary in their land use context, with some streets passing through both residential and commercial areas. The roadway standard for a Modified Avenue I is a right-of-way width of 104 feet and a roadway width of 74 feet. Non-arterial roadways connect arterial roadways to local residential neighborhoods or industrial areas. Non-arterial roadways are designated collector or local streets. The standard for a Local Street is a right-of-way width of 60 feet and a roadway width of 36 feet.

Regional access to the Project Site area is provided by the Hollywood Freeway (US-101). The north-south Hollywood Freeway is located approximately 1,600 feet east of the Project Site. The Hollywood Freeway is accessible via Lexington Avenue with a southbound off ramp, a northbound on ramp on Western Avenue north of Lexington Avenue, and a southbound on ramp and northbound off ramp on Santa Monica Boulevard.

The Hollywood Freeway carries approximately 258,000 vehicles per day (VPD) with 15,300 vehicles per hour (VPH) at Santa Monica Boulevard. Freeway traffic volumes are provided by Caltrans in the 2017 Traffic Volumes Book[2]. The Hollywood Freeway is typically congested during the morning and afternoon commute hours.

Major roadways in this area of Hollywood generally follow an overall grid pattern with some curves. Key east - west streets providing access to the immediate Project Site Area

[2] Caltrans Traffic Volumes: https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes

include Fountain Avenue and Lexington Avenue. Key north - south streets serving the Project Study A include North Cahuenga Avenue and Vine Street.

Lexington Avenue is an east - west roadway designated approximately 500 feet north of the Project. Lexington Avenue is a Local Street in the Mobility Plan 2035 in the Project Study Area. One lane in each direction is provided and parking is generally permitted in the Project Study Area. There is a southbound 101 freeway off ramp at Lexington Avenue east of Western Avenue.

Santa Monica Boulevard (State Highway 2) is an east - west roadway designated a Modified Avenue I in the Mobility Plan 2035. Santa Monica Boulevard provides the southern boundary of the Project Site. Santa Monica Boulevard, in the Project Study Area, is identified as part of the City of Los Angeles High Injury Network, Bicycle Lane Network, and Pedestrian Enhanced District. In the Project Study Area, two traffic lanes in each direction are provided. Parking is generally provided on both sides of the street with metered 2-hour 8AM to 8PM weekday parking restrictions.

Saint Andrews Place is a north-south roadway designated a Local Street in the Mobility Plan 2035. Saint Andrews Place is the eastern boundary of the Project Site. Saint Andrews Place is a jogged intersection at Santa Monica Boulevard. One lane in each direction is provided. One hour metered parking is provided between Santa Monica Boulevard and Virginia Avenue. North of Virginia Avenue, parking is permitted with the exception of street cleaning on Monday between 10 AM and 1PM.

Virginia Avenue is an east-west roadway designated a Local Street in the Mobility Plan 2035. Virginia Avenue provides the northern boundary of the Project Site. In the Project Study Area, Virginia Avenue is one lane in each direction. There are two speed bumps on Virginia Avenue between Wilton Place and St. Andrews Place. Parking is generally permitted on Virginia Avenue with the exception of street cleaning on Monday between 10 AM and 1PM.

Western Avenue is a north-south roadway designated a Modified Avenue I in the Mobility Plan 2035. Western Avenue is approximately 535 feet east of the Project Site. In the Project Study Area, two traffic lanes in each direction are provided. Parking is generally provided on both sides of the street with metered 1-hour 8AM to 8PM weekday parking restrictions.

Wilton Place is a north-south roadway designated a Modified Avenue III roadway in the Mobility Plan 2035. Wilton Place is the western boundary of the Project Site. Two lanes in each direction are provided in the Study Area. No parking is permitted in the Study Area. Wilton Place is part of the City's High Injury Network, Bicycle Lane Network, and Pedestrian Enhanced Network.

Transit Information

The proposed Project is a studio, restaurant and creative office complex. The Project is located in a Transit Priority Area with major bus routes. Public transportation in the Study Area is provided by the Metropolitan Transportation Authority (Metro). There is a Metro B Line (previously Red Line) Hollywood/Western station located approximately 3,800 feet northeast of the Project Site. This station is accessible by walking, cycling or using other transit services in the area. The Metro B line provides service between North Hollywood, Universal City, Hollywood, Vermont area, Wilshire area, and downtown Los Angeles including Union Station where there are connections to multiple Los Angeles Count destinations.

Metro and LADOT provides local and rapid bus lines through this area of Hollywood.

Metro local and rapid lines provide service along Santa Monica Boulevard in the Project area which include:

-Route 4 operates between Santa Monica, West Los Angeles, West Hollywood, Hollywood and downtown Los Angeles. There is a stop for Route 4 at Santa Monica Boulevard & Wilton Place adjacent to the site. The headways (time between busses) are approximately 10 minutes during the peak hours.

Metro local and rapid lines provide service along Western Avenue in the Project area which include:

-Route 207 operates between Hawthorne, Chesterfield Square, Jefferson Park, Koreatown and Hollywood. There is a stop for Route 207 at Santa Monica Boulevard

& Western Avenue approximately 600 feet east of the site. Headways are 16 to 18 minutes between buses.

Transfer opportunities are available to/from this area of Hollywood from the local and regional lines. The transit and metro lines are illustrated in Appendix G.

Complete Streets Mobility Networks (Vehicle, Bicycle, Transit and Neighborhood)

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. Streets may be listed in several networks with the goal of selecting a variety of mobility enhancements.

Network layers have been created for the Complete Street Network that prioritizes 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. Mobility Element maps, Walkability Index maps, bicycle plan maps, and pedestrian destination maps are included in Appendix H.

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.

- There are no VEN roadways in the immediate Project area.

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

- Santa Monica Boulevard – along the southern boundary of the Project Site, is identified as part of the TEN.
- Western Avenue – located east of the Project Site, is identified as part of the TEN.

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

- Santa Monica Boulevard – located along the southern boundary of the Project Site is identified as part of the BEN – Tier 3.
- Wilton Place – located along the western boundary of the Project Site is identified as a Tier 2 BEN.

The City of Los Angeles adopted a 2010 Bicycle Master Plan to encourage alternative modes of transportation throughout the City of Los Angeles. 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. Copies of the Bicycle Plan maps dated 2010 are provided in Appendix H for reference. A brief definition of the Master Plan's bicycle facilities is provided below:

Bicycle Path – A bicycle path is a 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 bicycle paths are provided in the immediate area.

Bicycle Lane – A bicycle lane is typically provided on street with a designated lane striped 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.

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.

Neighborhood Enhanced Network (NEN) - NEN is comprised of local streets intended to benefit from pedestrian and bicycle related safety enhancements for more localized travel of 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.

- Lexington Avenue, located north of the Project Site, identified as part of the Tier 2 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. The PED segments provided in the mobility map identify streets where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to and from the major destinations within communities.

- Santa Monica Boulevard east of North Ridgewood Place and along the Project Site frontage is identified as part of the PED.
- Wilton Place between Virginia Avenue and Sierra Vista Avenue is identified as part of the PED.
- Western Avenue is identified as part of the PED.

The Complete Streets guide acknowledges that adding pedestrian design features and street trees encourages people to take trips on foot instead of by car. Thereby helping to reduce the volume of cars on the road and emissions, increases economic vitality, and make the City feel like a more vibrant place.

PROJECT TRAFFIC GENERATION

As part of the Non-CEQA assessment, an operational analysis of the peak hour traffic flow with the Project is required. This evaluation is based on peak hour traffic flow level of service (LOS) methodologies which determines vehicle delay using current traffic volume data, traffic signal and street characteristics.

Traffic generating characteristics of many land uses have been studied by the Institute of Transportation Engineers (ITE). The results of these studies are published in ITE Trip Generation, 11th Edition Handbook. The Project's restaurant component land use was evaluated as a high generating high turnover restaurant. The proposed creative office uses tend to differ from standard offices in that the employees keep non-traditional hours. However, the ITE Trip Generation Manual does not differentiate between types of office so the general office rate was used to estimate the creative office trip generation. ITE trip generation rates were used to estimate the office and restaurant land uses. The production studio/stage is a unique land use not represented in the ITE Trip Generation Manual. The rates for this land use are based on empirical data from previously approved Transportation Assessments for NBC Universal Evolution Plan EIT and transportation Assessment for 8th & Alameda Studio Project (8-2021) by Gibson Transportation.

Trip Generation is based on the ITE Trip Generation,11th Edition (ITE Manual) for Creative Office, Office Associated with Production Stage/Studio & Restaurant. The ITE Office Land Use (Code 710) provides trip generation as both a fitted curve and average rate. Based on graphs presented in the ITE Manual, the average rate represents office of less than approximately 200,000 square feet more accurately and the fitted curve appears to represent offices of greater than approximately 200,000 square feet. The office component of the studio is less than appx. 200,000 sf and the office trip generation average rate is used. The creative office component of the project is greater than 200,000 sf and the office fitted curve trip generation was used. The fitted curve, for the office uses, is a natural logarithmic equation (Ln) and is presented below the trip generation rates. Production Stage/Studio incudes the sound stages and flex space

(4x19,439sf)+14,113sf)). The Production Support includes mill & support services. Production Office includes ancillary office associated with the Sound Stage/Studio.

The ITE Trip Generation rates do not include interactions between the land uses. Internal trips are those tips generated by persons already on site that go to a second land use on site without needing their vehicle. The proposed Project's restaurant land use will be provided primarily for employees and for catering functions on site. Therefore, although likely higher, a 50% internal capture rate was included in the analysis.

Traffic rates used in this analysis are presented in Table 2. Table 3, on the following page shows the Project's peak hour trip estimate. Notice that the Project is within a Transit Priority Area (TPA) with services provided along Santa Monica Boulevard and Western Avenue with service to the Metro D Line, Santa Monica Boulevard (Route 4) and Western Avenue (Metro D Line). A 15% transit credit was incorporated for the proposed Project's Production Studio/Stages, Production Support, Production Office, Creative Office and Restaurant.

Table 2
Project Trip Generation Rates

ITE		Daily	AM Peak Hour			PM Peak Hour		
Code	Description	Traffic	In	Out	Total	In	Out	Total
710	General Office (Equation) for Creative Office	a	88%	12%	b	17%	83%	c
710	General Office (Rate) for Production Office	10.84	88%	12%	1.52	17%	83%	1.44
*	Production Support	4.14	65%	35%	0.61	45%	55%	0.57
*	Production Stage/Studio	5.91	63%	37%	0.20	40%	60%	0.43
932	Restaurant	107.20	55%	45%	9.57	61%	39%	9.05

* Based on empirical rates from Transportation Assessment for NBC Universal Evolution Plan EIR and Transportation Assemment for 8th & Alameda Studio Project (8-2021), by Gibson With ITE based rates updated to 11th Edition

a Ln(T)=0.87Ln(x)+3.05 T = Trips & x = sf/1000

b Ln(T)=0.88Ln(x)+1.16

c Ln(T)=0.83Ln(x)+1.29

Table 3
Estimated Project Traffic Generation

ITE Code	Description	Size	Daily Traffic	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
*	Production Stage/Studio	91,870 sf	543	12	6	18	16	24	40
*	Production Support	11,468 sf	47	4	3	7	3	4	7
710	Production Office (rate)	6,619 sf	72	9	1	10	2	8	10
	Subtotal Production Stage/Studio, Support & Office	**109,957 sf**	**662**	**25**	**10**	**35**	**21**	**36**	**57**
932	Restaurant	12,378 sf	1,327	35	28	63	68	44	112
	Internal Restaurant Trips	50%	(663)	(17)	(15)	(32)	(34)	(22)	(56)
	Subtotal Restaurant	**12,378 sf**	**664**	**18**	**13**	**31**	**34**	**22**	**56**
710	**Creative Office (Equation)**	**388,286 sf**	**3,777**	**533**	**73**	**606**	**87**	**425**	**512**
	Subtotal Proposed		**5,103**	**576**	**96**	**672**	**142**	**483**	**625**
	Transit Reduction	15%	(765)	(87)	(14)	(101)	(22)	(72)	(94)
	PROPOSED TOTAL	**510,621 sf**	**4,338**	**489**	**82**	**571**	**120**	**411**	**531**

Table 3 shows the Project traffic estimates using ITE traffic rates. It is estimated that the Project would generate an increase of 4,338 daily trips with 571 vehicle trips during the AM Peak Hour and 531 more trips during the PM Peak Hour more on the nearby street network.

A primary factor affecting trip direction is the distribution of population and employment which would generate Project trip origins and destinations. The estimated project directional trip distribution is also based on the study area roadway network, freeway access points, traffic flow patterns in and out of this area of Hollywood, driveway locations and consistency with previously approved traffic studies for this area. The Project's vehicle trips are analyzed at the nearby intersections in the Project Access, Safety and Circulation Evaluation section of this report starting on page 33.

PEDESTRIAN, BICYCLE AND TRANSIT ACCESS ASSESSMENT

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

Removal or Degradation of Facilities

The Project would not remove, modify, or degrade any pedestrian, bicycle, and transit facility in the vicinity of the Project Site. In fact, any damaged or off-grade sidewalk, curb and gutter along the property frontage(s) would be repaired under Section 12.37 of the Los Angeles Municipal Code (LAMC).

Project Intensification of Use

Generally, projects that contribute to efficient land use patterns enabling higher levels of walking, cycling, and transit as well as lower than average trip length are considered to have a less than significant impact on transportation. These projects include, for example, projects in Transit Priority Areas, projects consisting of residential infill or those located in low VMT areas.

The Project would be developed on a Site located within a TPA with a bus stop for Metro Route 4 on the northeast corner of Santa Monica Boulevard at Wilton Place along the Project Site frontage. The Project Site's frontage on Santa Monica Boulevard is designated as a Modified Avenue I roadway and is included in the Pedestrian Enhanced District, Transit Enhanced District, and Bicycle Lane Network (Tier 3). The Project Site's frontage along Wilton Place is designated as a Modified Avenue II and is part of the Pedestrian Enhanced District, and Bicycle Lane Network (Tier 2).

Transit Facilities -The number of additional transit users that could be created by the Project were estimated based on the ITE Trip Generation Manual 10th Edition Supplement, February 2020 (ITE Supplement). This ITE Supplement provides estimated transit trip ends for some land uses including the proposed office. The Sound Stages and Support Area are not included in the ITE Supplement and were evaluated as office as the closest related land use. Restaurant land uses were not included in the ITE Supplement. Therefore, the shopping center land use was used to as the closest related land use to replicate transit activity created by the restaurant. Note that the restaurant is proposed partially for convenient use by the office employees and their guests. The ITE Supplement transit trip end rates have varying number of sample sizes and reliance. The Dense Multi-Use Urban rates per 1,000 square feet were used for this Project. This category provides a conservative estimate of transit trips. Table 4a provides the transit trip end rates and trips.

Table 4a
Transit Trip Rates and Trip Ends

Transit Trip Rates

ITE Code	Description	AM Peak Hour Total	PM Peak Hour Total
710	Office	0.15	0.14
820	Shopping Center*	0.91	0.64

* No restaurant transit trip generation available, estimated using shopping center

Transit Trips

ITE Code	PROJECT TRANSIT TRIPS Description	Size	AM Peak Hour Total	PM Peak Hour Total
710	Sound Stages	91,870 sf	14	14
710	Production Support	18,087 sf	3	3
710	Creative Office	388,268 sf	58	58
820	Restaurant	12,378 sf	11	8
	NEW TRANSIT TRIPS TOTAL		**86**	**83**

As mentioned previously, the Project is served by local transit. Metro Route 4 along Santa Monica Boulevard and Metro Route 207 have bus stops within 1/4 mile of the Project Site. The Metro B Line Hollywood/Western station is within ¾ mile of the Project Site. These rail and local lines provide transit to major destination points including Santa Monica, Hollywood and downtown Los Angeles. Transfer opportunities from the local lines provides regional access.

Based on the schedule provided on Metro.net and LADOT, the bus services in the area have a range of approximately 10 minutes headways in both the AM and PM Peak Hours for Route 4 and 16 to 18 minutes for the Route 207. Therefore, there would be approximately to 6 buses in each direction along Route 4 and 3 to 4 buses for Route 207. These two services will provide 18 buses in a single hour (6 buses X 2 directions + 3 buses X 2 directions). Metro buses have 40 seats on a low floor bus and 43 seats for a traditional high-floor bus. Larger articulated busses provide 56-60 seats.

Conservatively, this would equate to a total of 720 seats during the peak hour (18 buses X 40 seats). This total does not include standing capacity.

In addition, the Metro B line extension schedule currently provides 15-minute headways during peaks. There are typically two to three cars in each train with 90 seats and standing room for up to 70 riders. With 160 passengers (90 seats + 70 standing) in each direction every 15 minutes, there is capacity for 1,280 passengers during the peak hours (2 directions X 160 passengers X 60 minutes/15-minute headways).

With a combined capacity of 2,000 riders, the Project could create a 4.3% increase in ridership during the AM and a 4.2% increase in ridership during PM Peak Hour (86 riders/2000 seats for the AM Peak Hour and 83 riders/2000 seats for the PM Peak Hour). The projected level of new transit ridership shown in Table 4a, with 86 during the AM Peak Hour and 83 during the PM Peak Hour, would not be expected to create a deficiency to the current transit services in the area.

<u>Bike Facilities</u> -No bike facilities are currently located along the Project Site frontage of Santa Monica Boulevard. Project employees and guests may make use of the cycling in the area via the Project's cycling storage. Showers will be available for those who cycle and want to make use of these facilities. The number of additional cyclists created by the Project was estimated based on the ITE Supplement. This ITE Supplement provides estimated bike trip ends for some land uses including the proposed office. The Sound Stages and Support Area are not included in the ITE Supplement and were evaluated as office as the closest related land use. Restaurant land uses were not included, and shopping center was used as the closest related land use to replicate the bicycle use generation. The ITE Supplement's bike trip end rates have been estimated using the Dense Multi-Use Urban rates per 1,000 square feet for the office and restaurant. Table 4b, on the following page provides the bicycle trip end rates and trips.

Table 4b
Bicycle Trip Rates and Trip Ends

Bike Trip Generation Rates

ITE Code	Description	AM Peak Hour Total	PM Peak Hour Total
710	Office	0.02	0.01
820	Shopping Center*	0.27	0.03

* Not restaurant bike trip generation avaialble, estimated using shopping center

Bike Trips

ITE Code	PROJECT BIKE TRIPS Description	Size	AM Peak Hour Total	PM Peak Hour Total
710	Sound Stages	91,870 sf	2	1
710	Support Area	18,087 sf	0	0
710	Creative Office	388,268 sf	8	4
820	Restaurant	12,378 sf	3	0
	NEW Bike TRIPS TOTAL		**13**	**5**

The projected level of cyclists shown above in Table 4b would not be expected to create a deficiency to the current cycling services in the area.

Pedestrian - After construction of the Project, there would be additional pedestrians in the area composed of the employees and guests of the Project. As with the transit and bike trips, the ITE Supplement Dense Multi-Use Urban rates per unit for the office and restaurant (using office rates for the Sound Stages and shopping center rates for the restaurant) were used to provide the estimated pedestrian trip end rates and trips. Table 4c, on the following page, provides the pedestrian trip end rates and trips.

Table 4c
Pedestrian Trip Rates and Trip Ends

Walk Trip Generation Rates

ITE Code	Description	Daily	AM Peak Hour Total	PM Peak Hour Total
710	Office	5X(AM+PM)	0.16	0.17
932	High Turnover Restaurant*	5X(AM+PM)	0.45	0.45

* No rate for PM Peak Hour, Used AM Rate for PM Peak Hour

** No Daily rates, used 5x(AM+PM Peak Hour rates)

Walk Trip Generation

ITE Code	PROJECT PEDESTRIAN TRIPS Description	Size	Daily	AM Peak Hour Total	PM Peak Hour Total
710	Sound Stages	91,870 sf	152	15	16
710	Support Area	18,087 sf	30	3	3
710	Creative Office	388,268 sf	641	62	66
932	Restaurant	12,378 sf	56	6	6
	NEW Pedestrian TRIPS TOTAL		**879**	**86**	**91**

A map of the various pedestrian destinations and facilities within ¼ mile is provided in Appendix H.

Street frontage along Santa Monica Boulevard, Wilton Place, Virginia Avenue and St. Andrews Place would be improved with new landscaping and repaired or improved sidewalks along the Project frontages. Full traffic signals with continental (crosshatch) crosswalks are provided on Santa Monica Boulevard at Wilton Place and St. Andrews Place. Due to the Avenue III roadway designation; mirrors, visual and audio alerts of exiting vehicles is proposed along North Wilton Place.

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 of Los Angeles 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.

Both Santa Monica Boulevard and Wilton Place along the Project frontage are included in the HIN, as shown on the HIN map in Appendix H. Continental crosswalks are currently provided along all legs of the traffic signal-controlled intersections of Santa Monica Boulevard and Wilton Place and Santa Monica Boulevard and St. Andrews Place. In addition, continental crosswalks are provided on Wilton Place at Virginia Avenue. These crosswalks improve driver visibility of pedestrians in the roadway crossing the street. In addition, mirrors, visual and audio alerts of exiting vehicles will be provided at the Project's Wilton Place driveways.

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.

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 on 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 - The following traffic conditions evaluation has been prepared to identify any new circulation and access deficiencies 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. Highway Capacity Software (HCS) was utilized to conduct the evaluation.

Once the vehicle delay value 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 intersection LOS grades in terms of vehicle delay are shown in Table 5a for signalized locations and Table 5b for stop sign-controlled intersections.

Table 5a
Signalized Intersection Level of Service Definitions

LOS	HCM (delay in seconds)	Operating Conditions
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.

Table 5b
Stop Sign Controlled Intersection
Level of Service Definitions

LOS	**DELAY (seconds)**
A	Less than or equal to 10
B	Over 10 to 15
C	16 - 25
D	26 - 35
E	36 - 50
F	Greater than 50

Analysis of Existing and Future Traffic Conditions

This Existing and Future Traffic analysis is for Non-CEQA evaluation to determine if there are potential access and circulation deficiencies. This analysis does not affect the CEQA VMT Impact analysis. Baseline historic traffic counts were obtained from LADOT. New traffic data cannot be collected during the COVID-19 shutdown, as directed by LADOT. The traffic counts for Wilton Place and La Mirada Avenue were conducted on June 8, 2016, on May 23, 2019 for Santa Monica Boulevard and Wilton Place; on May 23, 2019 for Santa Monica Boulevard and St. Andrews Place ; on for Lexington Avenue and Southbound 101 Freeway Off Ramp ; on October 21, 2015 for Lexington Avenue and Western Avenue; and on May 23, 2018 for Santa Monica Boulevard and Western Avenue.

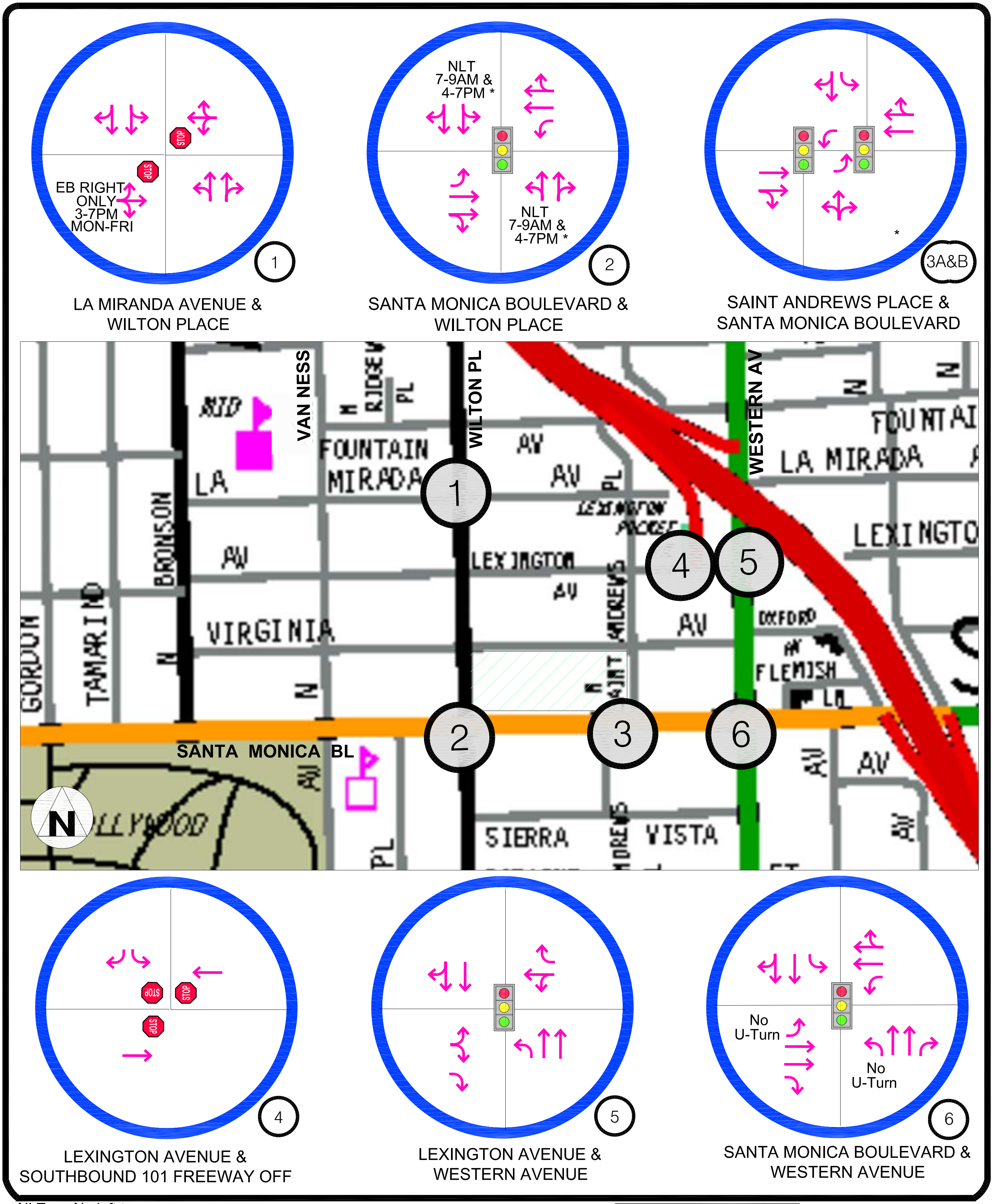
. These baseline traffic counts have been increased by 1 percent per year ambient growth to year 2022 to reflect existing conditions and does not change the CEQA analysis.

The intersections analyzed include:

1. Wilton Place and La Mirada Avenue (stop sign controlled);
2. Santa Monica Boulevard and Wilton Place (traffic signal controlled);
3. Santa Monica Boulevard and St. Andrews Place (traffic signal controlled);
4. Lexington Avenue and Southbound 101 Freeway Off Ramp (stop sign controlled);
5. Lexington Avenue and Western Avenue (stop sign controlled); and
6. Santa Monica Boulevard and Western Avenue (traffic signal controlled).

The Project Driveways on Wilton Place, Virginia Avenue and St. Andrews Place were evaluated separately.

The lane configurations at the Study Area intersections are provided in Figure 3. Further out from the study intersections, Project trips were distributed to the Study Area and are provided in Figure 4. The detailed distribution and Project trips at the Study Area intersections and driveways is provided in Figure 5a and 5b. The LOS calculations summary, on the following pages, in Tables 6 and 7 shows the Project's traffic Existing and Future delay with and without the Project at the signalized and stop sign-controlled intersections.



NLT = No left turn
7-9AM & 4-7PM Time restriction - except Sat/Sun

FIGURE 3

STUDY INTERSECTION CHACTERISTICS

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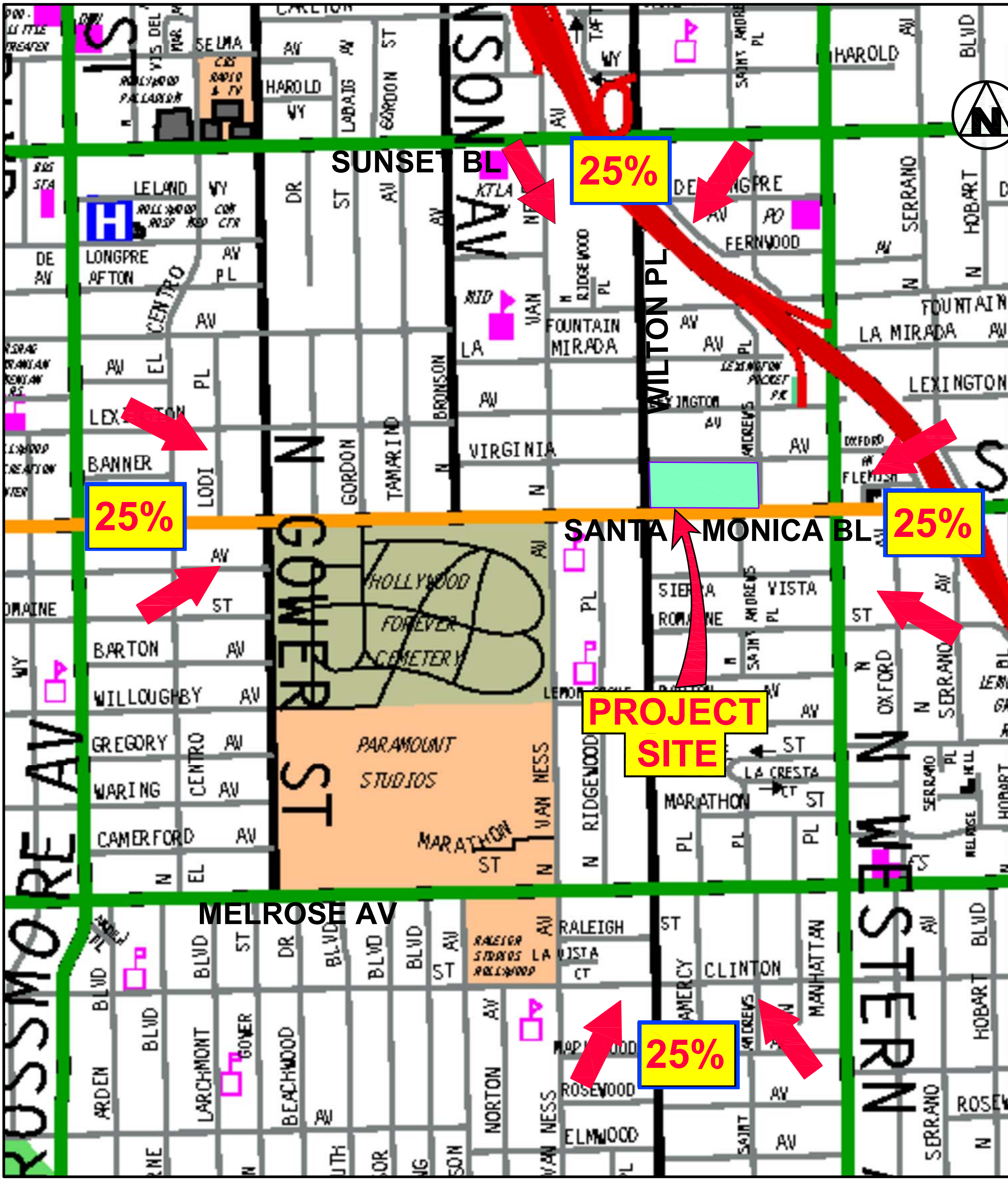

FIGURE 4

OVERALL PROJECT TRIP DISTRIBUTION

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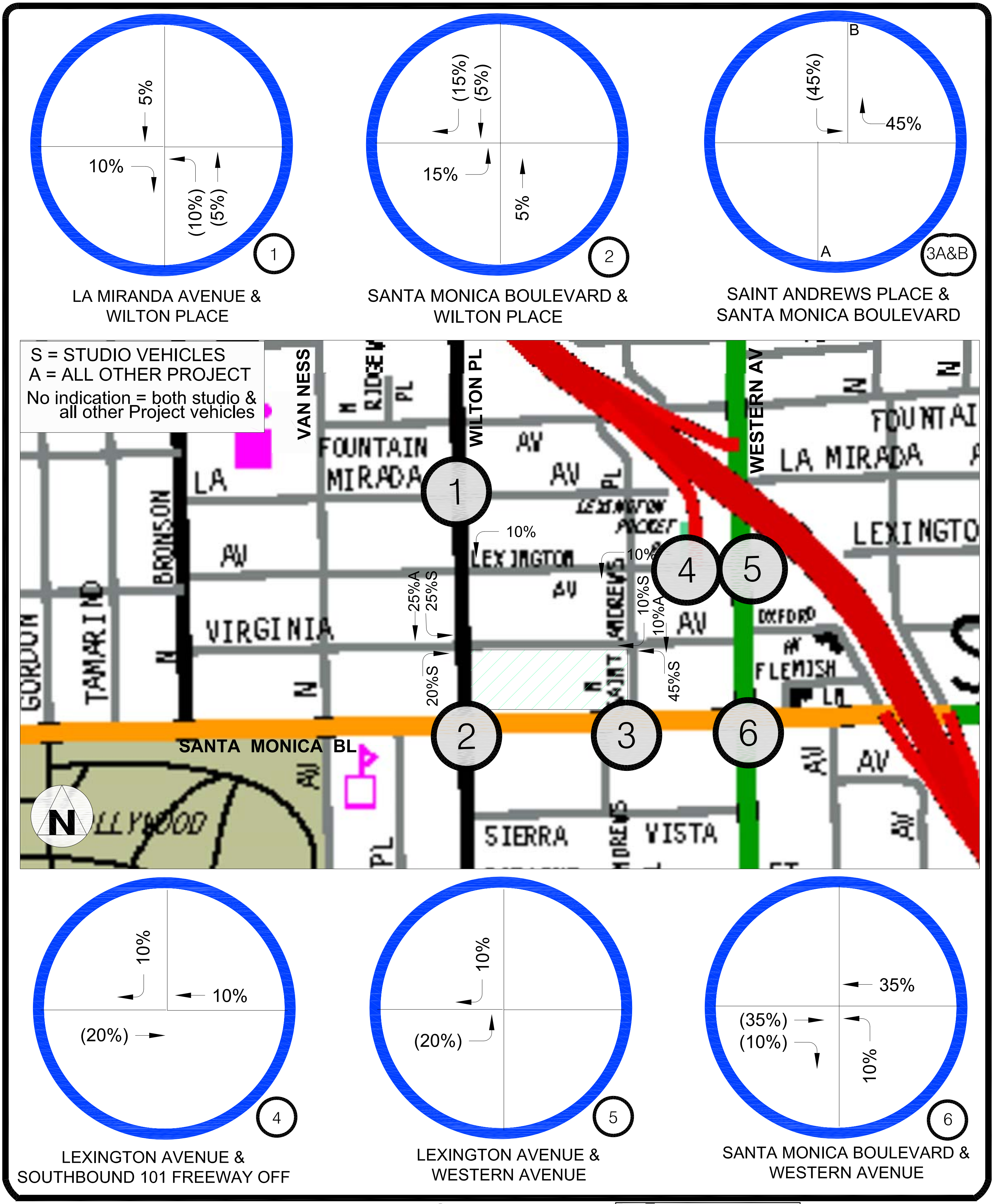

FIGURE 5A

PROJECT TRAFFIC ASSIGNMENT DISTRIBUTION
AT STUDY INTERSECTIONS IN / (OUT)

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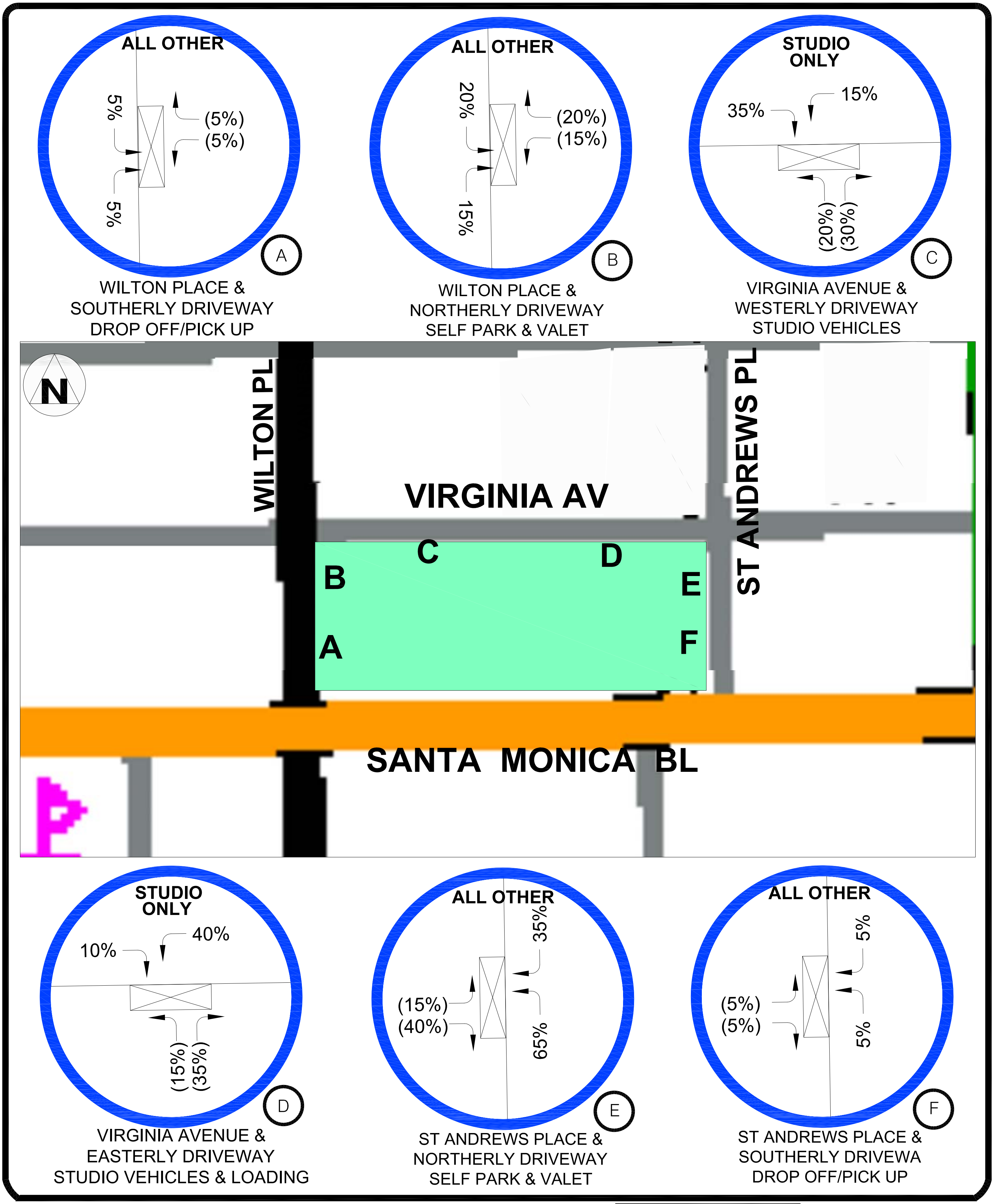

FIGURE 5B

PROJECT TRAFFIC ASSIGNMENT DISTRIBUTION
AT PROJECT DRIVEWAYS

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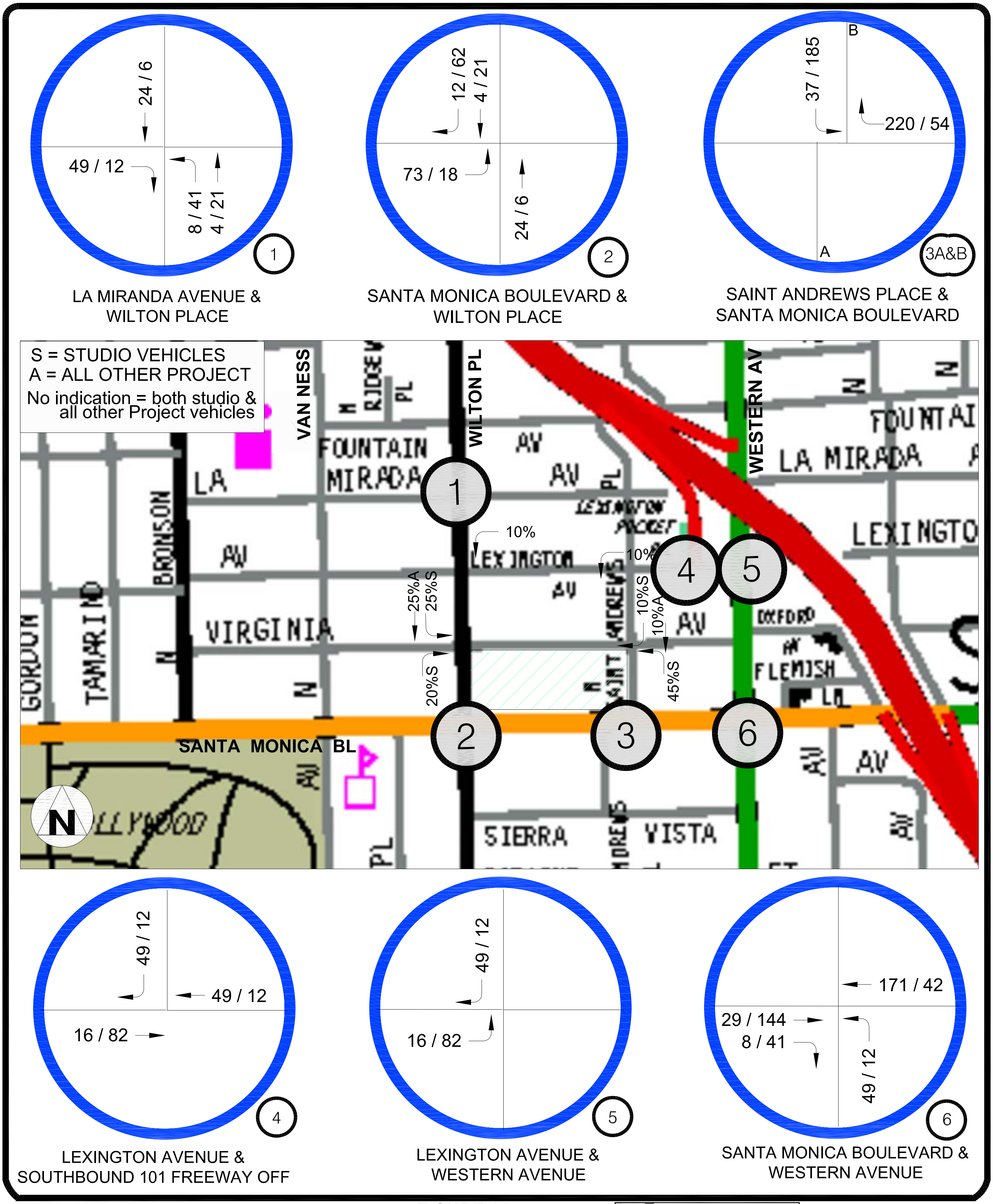

PROJECT TRAFFIC VOLUMES AT STUDY INTERSECTIONS AM PEAK HOUR/PM PEAK HOUR

FIGURE 6A

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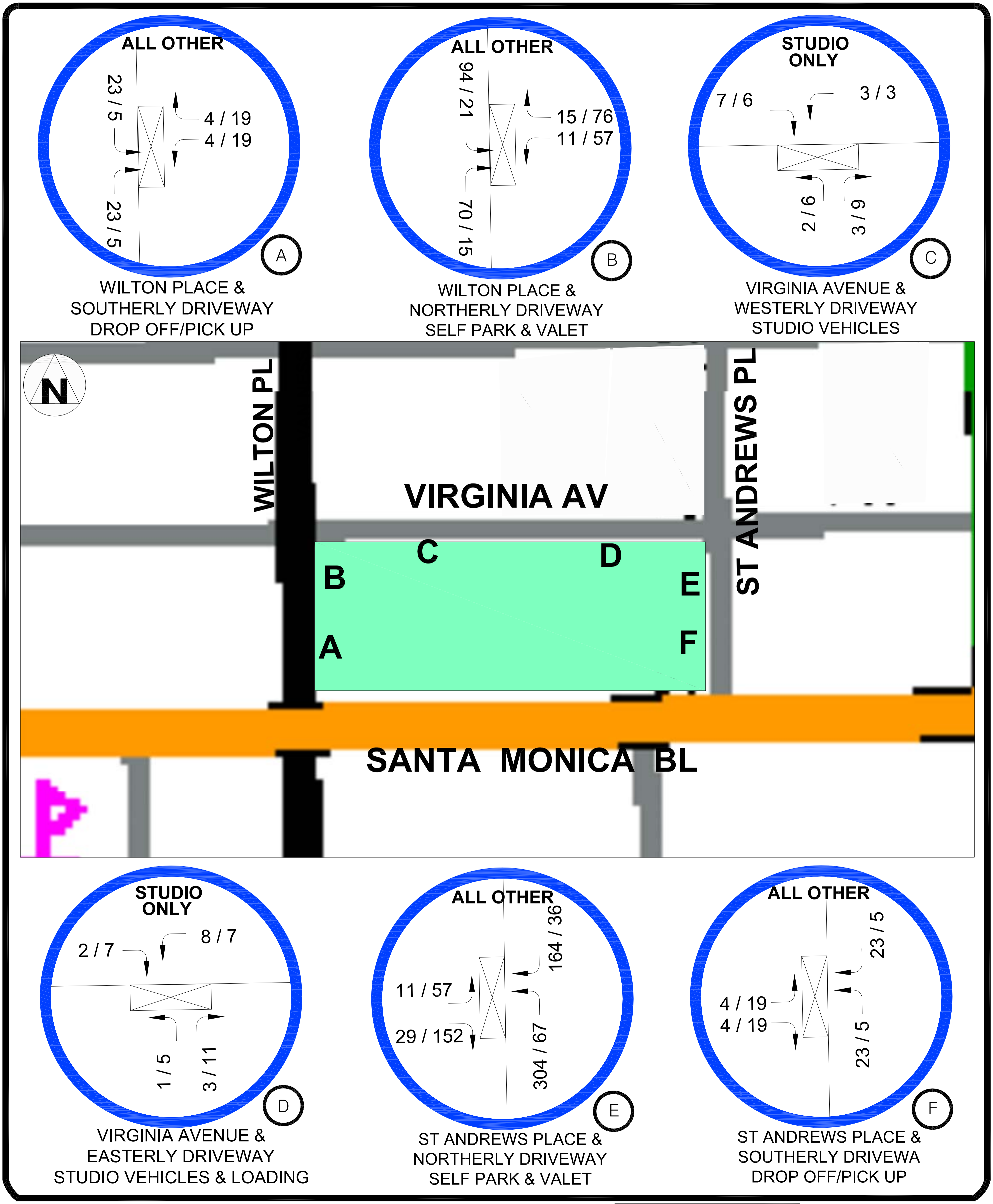

PROJECT TRAFFIC VOLUMES ONLY
DRIVEWAYS
AM PEAK HOUR/PM PEAK HOUR

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Table 6, on the following page, contains the results of the Existing (2022) and Existing + Project traffic conditions at the Study Area intersections. The intersection of Wilton Place and La Mirada Avenue is a two-way stop sign-controlled intersection. The two-way stop sign controlled intersection analysis provides a delay in seconds and LOS for key moves.

The following intersections were found to be operating under good conditions (LOS A- D)

- La Mirada Avenue & Wilton Place (AM & PM Peak Hour) Northbound and Southbound Lefts.
- Santa Monica Boulevard & Wilton Place (AM & PM Peak Hour);
- St. Andrews Place & Santa Monica Boulevard (East & West intersections) (AM & PM Peak Hour; and
- Lexington Avenue & Western Avenue (AM & PM Peak Hour); and
- Santa Monica Boulevard & Western Avenue (PM Peak Hour).

Table 6
Existing Traffic Conditions – Without and With Project

No.	Intersection	Peak Hour	DIR	Existing 2022 Delay (s)	Existing 2022 LOS	Existing+ Project Delay (s)	Existing+ Project LOS
1	La Miranda Avenue &	AM	EB	39.6	E	41.2	E
	Wilton Place		WB	52.1	F	80.9	F
			NBL	11.3	B	11.7	B
			SBL	9.3	A	9.4	A
		PM	EB	83.8	F	171.4	F
			WB	51.9	F	89.4	F
			NBL	9.9	A	10.4	B
			SBL	9.2	A	9.4	A
2	Santa Monica Boulevard &	AM		15.4	B	16.0	B
	Wilton Place	PM		17.2	B	18.7	B
3a	Saint Andrews Place (West I-S) &	AM		9.9	A	10.3	B
	Santa Monica Boulevard	PM		10.5	B	11.6	B
3b	Saint Andrews Place (East I-S) &	AM		7.6	A	9.6	A
	Santa Monica Boulevard	PM		12.9	B	17.7	B
4	Lexington Avenue &	AM		55.0	F	59.4	F
	Southbound 101 Freeway Off Ramp	PM		47.9	E	55.3	F
5	Lexington Avenue &	AM		16.5	B	16.6	B
	Western Avenue	PM		20.0	C	20.5	C
6	Santa Monica Boulevard &	AM		159.4	F	172.2	F
	Western Avenue	PM		40.2	D	42.4	D

DIR = Direction, s = seconds, I-S = Intersection

- Two Way Stop Sign provided with directional delay and LOS instead intersection delay since this is not provided on the worksheet
- #1 is two way stop sign controlled with directional delay
- #2, 3 a&b, 5 & 6 are traffic signal controlled with intersection delay identified
- #4 is all way stop sigh controlled with intersection delay identified

A review of the HCS worksheets indicated poor operating conditions (LOS E or F or traffic in lane overflowing exceeding storage capacity) at La Mirada Avenue & Wilton Avenue east and westbound directions for the AM and PM Peak hours, St. Andrews Pl & Santa Monica Boulevard westbound left exceeding capacity during the PM Peak Hour, Lexington Avenue and Southbound 101-Freeway off ramp and Santa Monica Boulevard and Western Avenue, indicate the following:

La Mirada Avenue & Wilton Place

AM Peak Hour
Existing and Existing + Project
Eastbound & Westbound traffic on the minor street is operating at LOS E
PM Peak Hour
Existing and Existing + Project
Eastbound and Westbound traffic on the minor street is operating at LOS F

St. Andrews Place & Santa Monica Boulevard

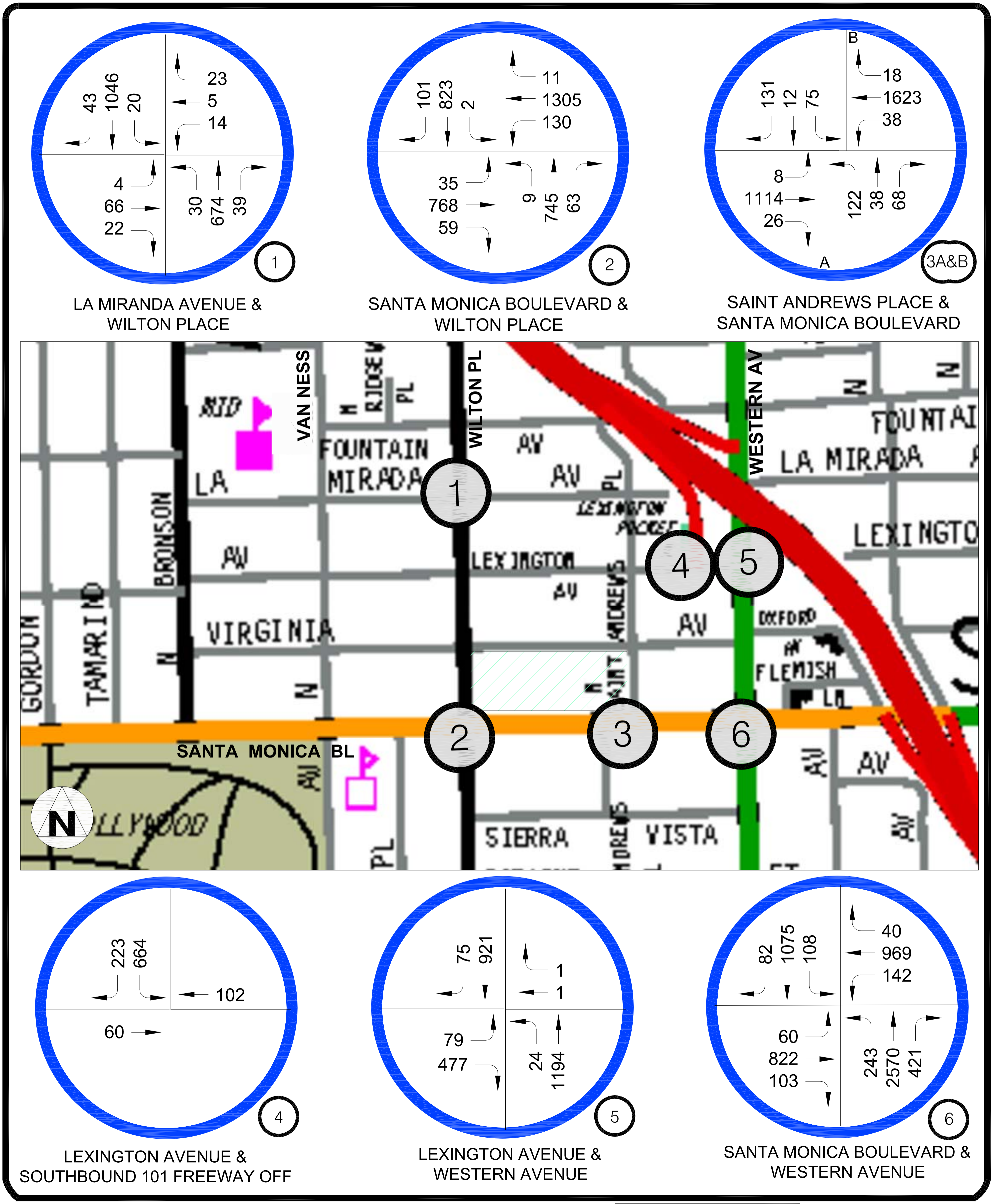
PM Peak Hour
Existing and Existing + Project
Overflow of traffic in westbound left turn lane with LOS of D for turn and LOS B for the intersection

Lexington Avenue & Southbound 101 Freeway Off ramp
AM Peak Hour
Existing and Existing + Project
Intersection operating at LOS F
PM Peak Hour
Existing and Existing + Project
Operating at LOS E for Existing and LOS F for Existing + Project

Santa Monica Boulevard & Western Avenue
AM Peak Hour
Existing and Existing + Project
Intersection operating at LOS F
Overflow of traffic in the northbound left turn lane with LOS B for turn and LOS F for intersection

The Project would not create these circulation deficiencies as they occur without and with the Project. A traffic signal warrant analysis has been conducted for La Mirada Avenue/Wilton Place and Lexington Avenue/Southbound 101 Freeway Off ramp to determine if a full traffic signal is currently and/or with the Project is warranted. No traffic signals were found to be warranted. This analysis is provided on pages 50 of the report. The Project's CEQA Project features of reduced parking, bicycle parking provided, and showers with secure bicycle lockers provided will assist in reducing these deficient conditions by encouraging alternative methods of transportation instead of vehicles.

HCS worksheets are provided in Appendix J. Figure 7 displays the Existing Traffic Volumes and Figure 8 displays the Existing + Project Traffic Volumes.



EXISTING (2022)
TRAFFIC VOLUMES
AM PEAK HOUR

FIGURE 7a

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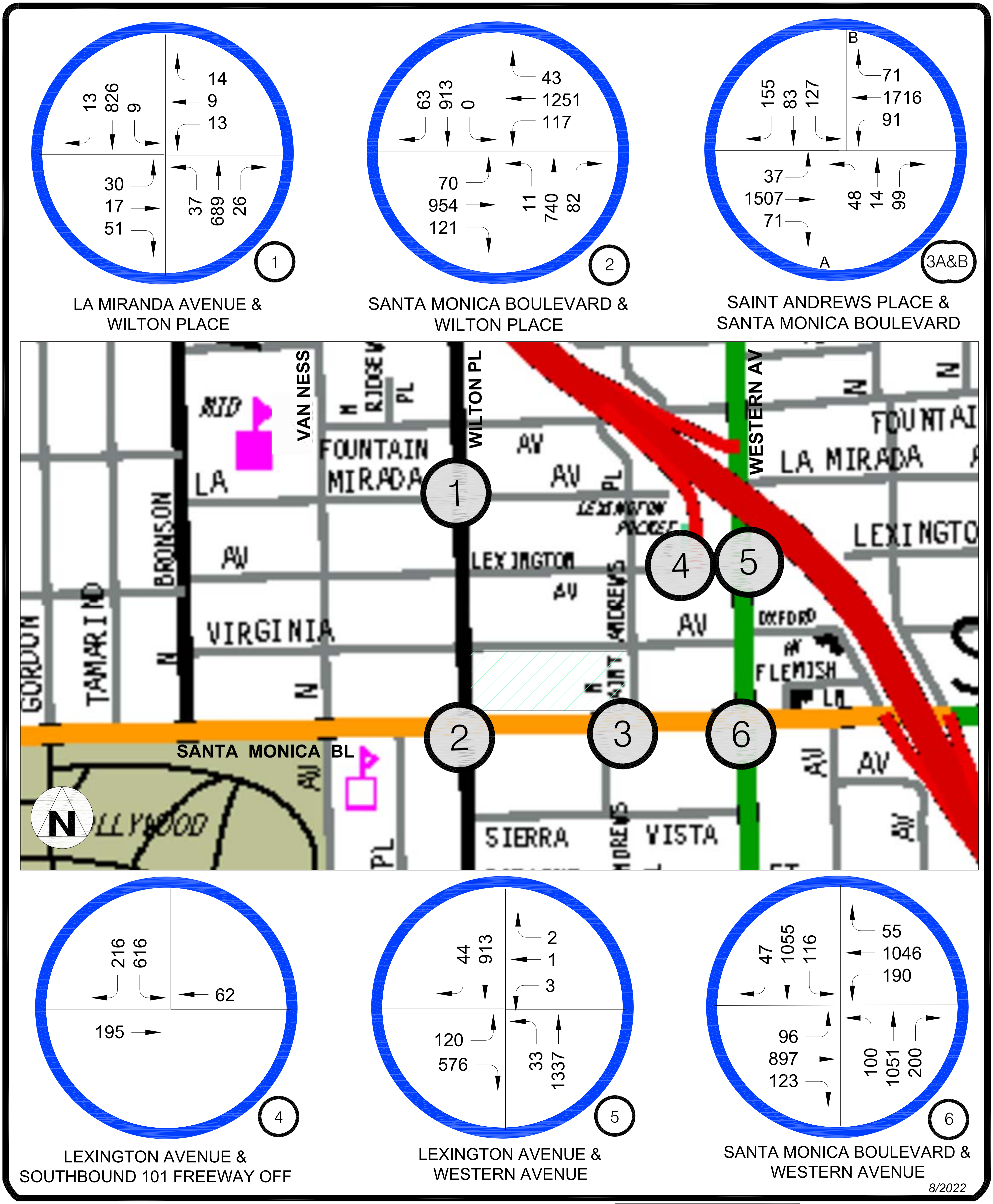

EXISTING (2022) TRAFFIC VOLUMES PM PEAK HOUR

FIGURE 7b

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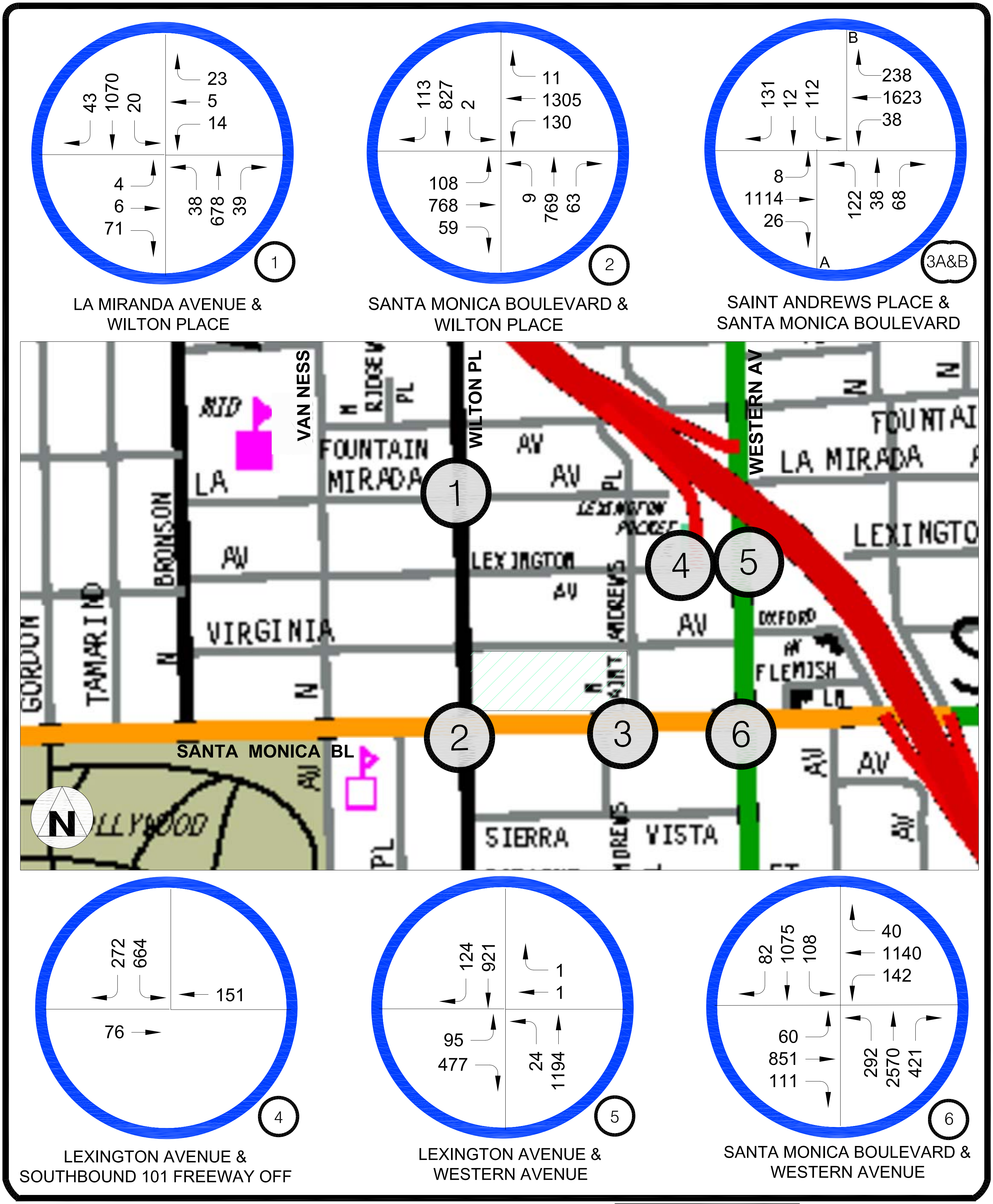

EXISTING + PROJECT TRAFFIC VOLUMES AM PEAK HOUR

FIGURE 8a

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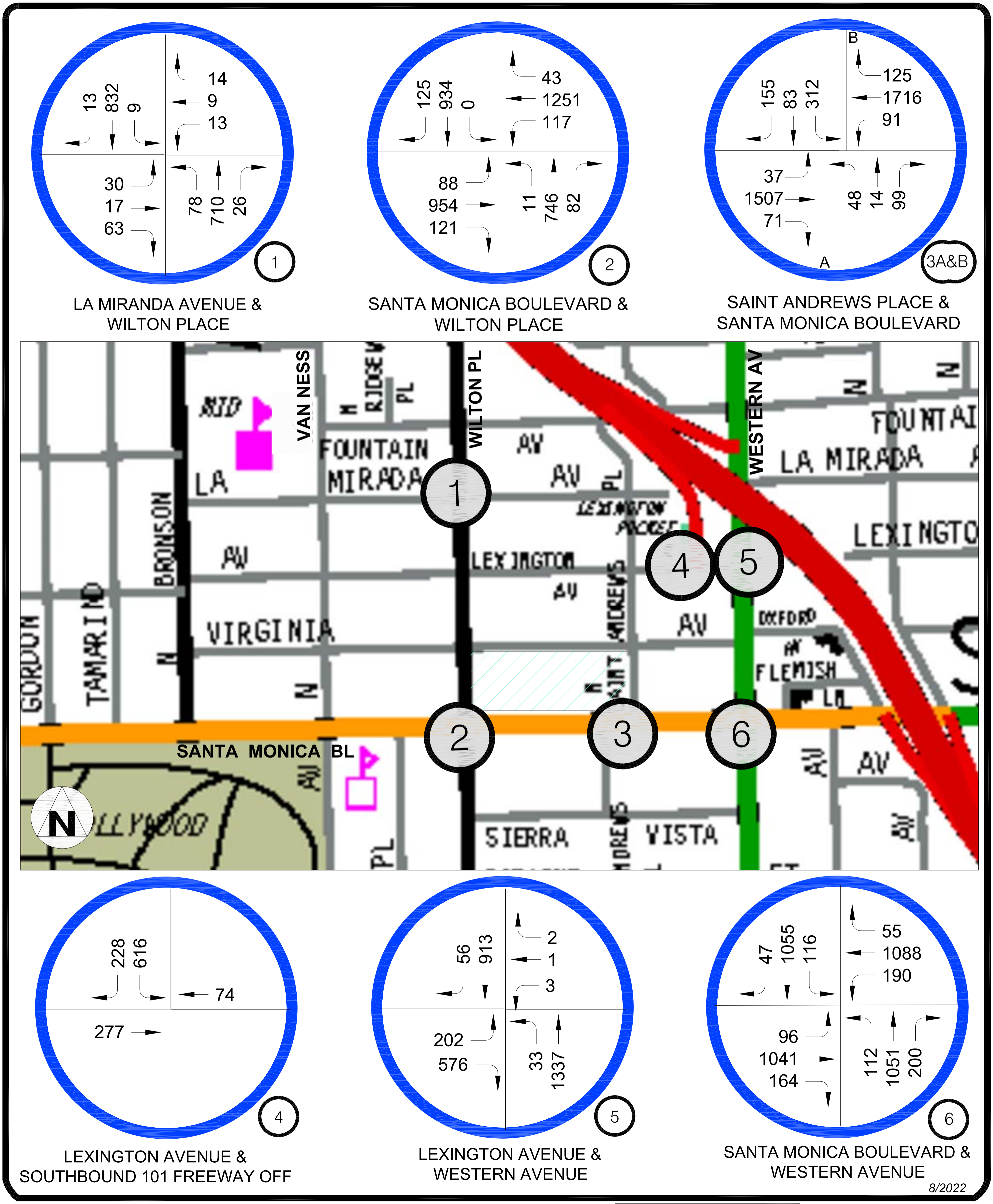

EXISTING + PROJECT
TRAFFIC VOLUMES
PM PEAK HOUR

FIGURE 8b

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For the future traffic conditions in 2026, traffic generated by other projects identified in the Hollywood area within a one-half mile radius of the Project Site have been added to the base counts to reflect potential growth in area. Seven other related projects were included for this growth forecast. In addition, a one percent annual growth has been included to 2026 to account for other unknown projects or projects outside the Study Area. These adjustments provide a conservative traffic flow estimate for the Study Area and may overstate actual levels of congestion. The map and list of and locations of related projects (Figure I-1) and the related projects' peak hour trips generated at the Study Area locations (Figure I-2) are provided in Appendix I.

The following intersections were found to be operating under good conditions (LOS A- D):

- La Mirada Avenue & Wilton Place (AM & PM Peak Hour) Northbound and Southbound Lefts.
- Santa Monica & Wilton Place (AM & PM Peak Hour)
- St. Andrews Place & Santa Monica Boulevard (East & West intersections) (AM & PM Peak Hour; and
- Lexington Avenue & Western Avenue (AM & PM Peak Hour); and

Table 7 contains the results of the future cumulative plus Project traffic conditions at the Study Area intersections for the 2026 study year.

Table 7
Future Traffic Conditions – Without and With Project

No.	Intersection	Peak Hour	DIR	Future (2026) Without Project Delay (s)	Future (2026) Without Project LOS	Future (2026) With Project Delay (s)	Future (2026) With Project LOS
1	La Miranda Avenue &	AM	EB	60.8	F	57.3	F
	Wilton Place		WB	80.7	F	130.2	F
			NBL	11.5	B	12.2	B
			SBL	9.5	A	9.6	A
		PM	EB	138.6	F	311.8	F
			WB	69.4	F	151.5	F
			NBL	10.2	B	10.8	B
			SBL	9.5	A	9.6	A
2	Santa Monica Boulevard &	AM		20.0	B	24.3	C
	Wilton Place	PM		22.3	C	28.1	C
3a	Saint Andrews Place (West I-S) &	AM		13.0	B	13.9	B
	Santa Monica Boulevard	PM		14.2	B	16.8	B
3b	Saint Andrews Place (East I-S) &	AM		8.9	A	12.0	B
	Santa Monica Boulevard	PM		17.6	B	23.9	C
4	Lexington Avenue &	AM		75.8	F	80.7	F
	Southbound 101 Freeway Off Ramp	PM		76.5	F	85.7	F
5	Lexington Avenue &	AM		18.1	B	18.2	B
	Western Avenue	PM		24.3	C	24.6	C
6	Santa Monica Boulevard &	AM		225.3	F	194.5	F
	Western Avenue	PM		57.9	E	63.9	E

DIR = Direction, s = seconds, I-S = Intersection

- Two Way Stop Sign provided with directional delay and LOS instead intersection delay since this is not provided on the worksheet
- #1 is two way stop sign controlled with directional delay
- #2, 3 a&b, 5 & 6 are traffic signal controlled with intersection delay identified
- #4 is all way stop sigh controlled with intersection delay identified

A review of the HCS worksheets indicated poor operating conditions (LOS E or F or traffic in lane overflowing and exceed lane storage capacity) at La Mirada Avenue & Wilton Avenue east and westbound directions for the AM and PM Peak hours, Santa Monica Boulevard and Wilton Place for the AM and PM Peak Hour, St. Andrews Pl & Santa Monica Boulevard westbound and eastbound left exceeding capacity during the

PM Peak Hour, Lexington Avenue and Southbound 101-Freeway off ramp and Santa Monica Boulevard and Western Avenue, indicate the following:

La Mirada Avenue & Wilton Place

AM Peak Hour
Future Without Project and Future With Project
Eastbound & Westbound traffic on the minor street is operating at LOS F
PM Peak Hour
Future Without Project and Future With Project
Eastbound and Westbound traffic on the minor street is operating at LOS F

St. Andrews Place & Santa Monica Boulevard

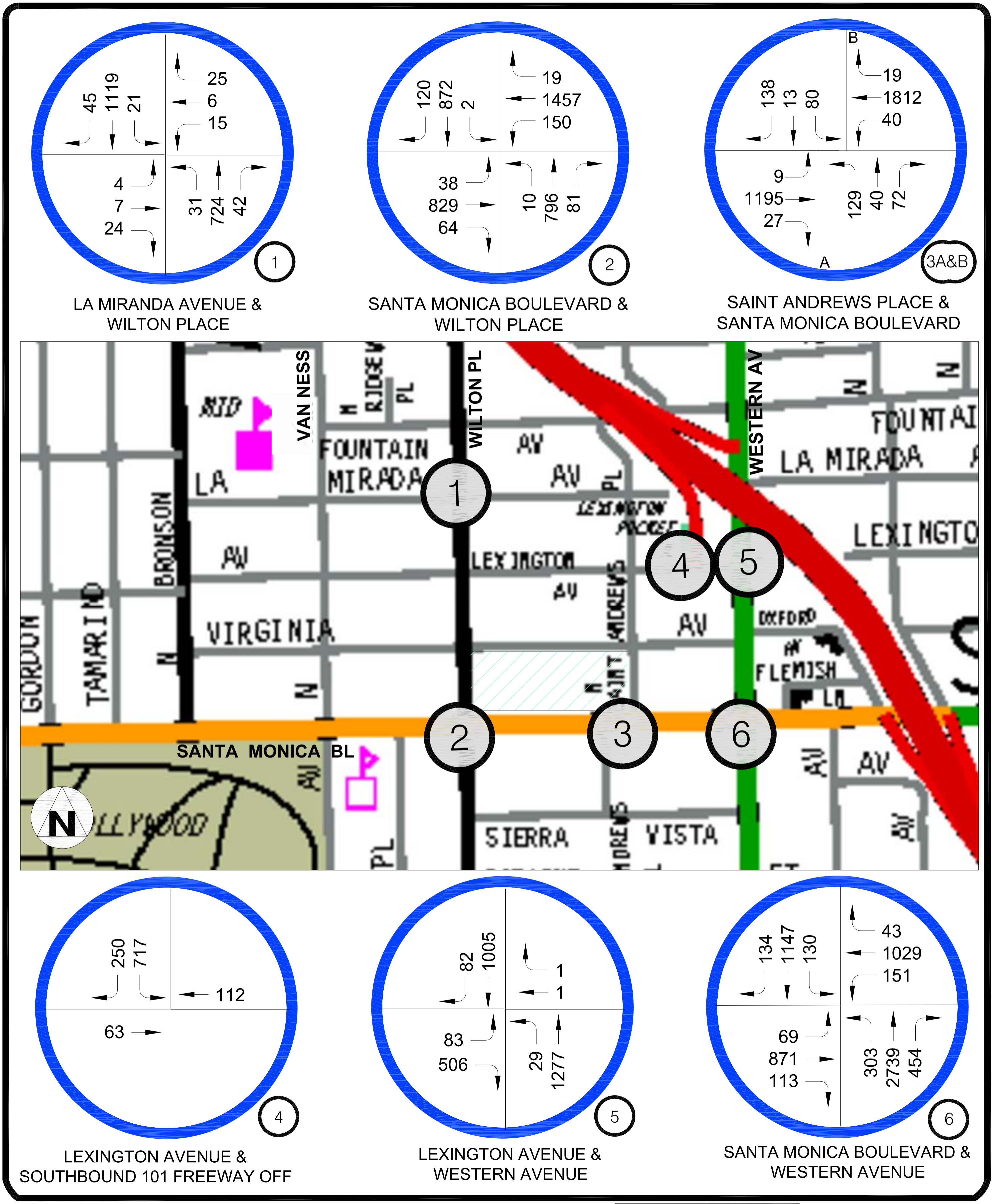
AM Peak Hour
Future Without Project and Future With Project
Overflow of traffic in westbound left turn lane with LOS of D for turn and LOS B for the intersection
Overflow of traffic in eastbound left turn lane with LOS of D for turn and LOS A for the intersection
PM Peak Hour
Future Without Project and Future With Project
Overflow of traffic in westbound left turn lane with LOS of D for turn and LOS B for the intersection
Overflow of traffic in eastbound left turn lane with LOS of D for turn and LOS C for the intersection

Lexington Avenue & Southbound 101 Freeway Off ramp
AM Peak Hour
Future Without Project and Future With Project
Operating at LOS F for Existing and Existing + Project
PM Peak Hour
Future Without Project and Future With Project
Operating at LOS E for Existing and LOS F for Existing + Project

Santa Monica Boulevard & Western Avenue
AM Peak Hour
Future Without Project and Future With Project
Operating at LOS F for Future and Future + Project
Overflow of traffic in the northbound right turn lane with LOS B for turn and LOS F for intersection
Overflow of traffic in the westbound left turn lane with LOS B for turn and LOS F for intersection

The Project does not create these circulation deficiencies as they occur without and with the Project. A traffic signal warrant analysis has been conducted for La Mirada Avenue/Wilton Place and Lexington Avenue/Southbound 101 Freeway Off ramp to determine if a full traffic signal is currently and/or with the Project is warranted. No traffic signals were found to be warranted. This analysis is provided on page 57 of the report. The Project's CEQA Project features of reduced parking, bicycle parking provided, and showers with secure bicycle lockers provided will assist in reducing these deficient conditions by encouraging alternative methods of transportation instead of vehicles.

HCS worksheets are provided in Appendix J. Figure 9a & 9b displays the Future Without Traffic Volumes and Figure 10 displays the Future With Project Traffic Volumes.



FUTURE WITHOUT PROJECT
TRAFFIC VOLUMES
AM PEAK HOUR

FIGURE 9a

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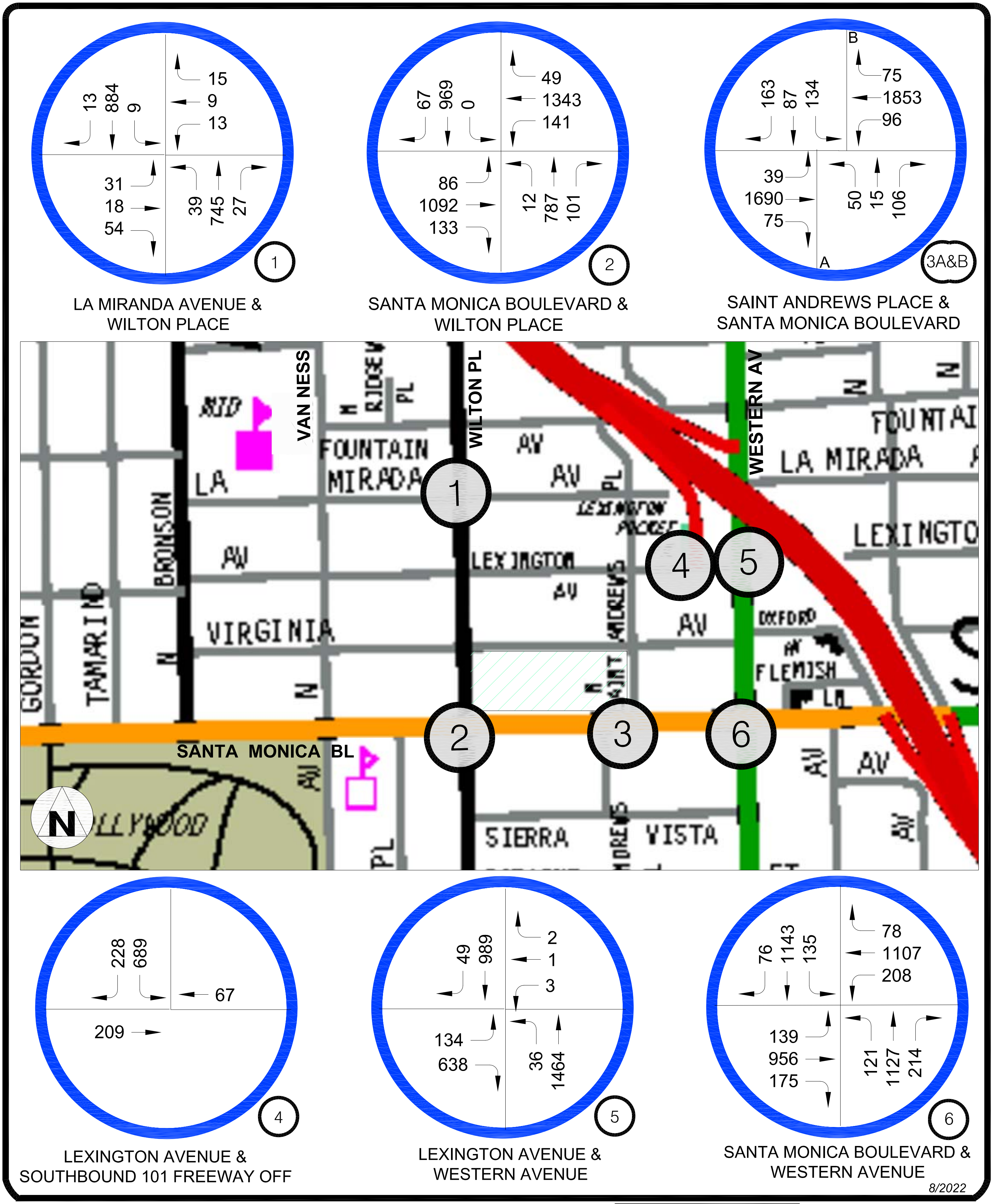

FUTURE WITHOUT PROJECT
TRAFFIC VOLUMES
PM PEAK HOUR

FIGURE 9b

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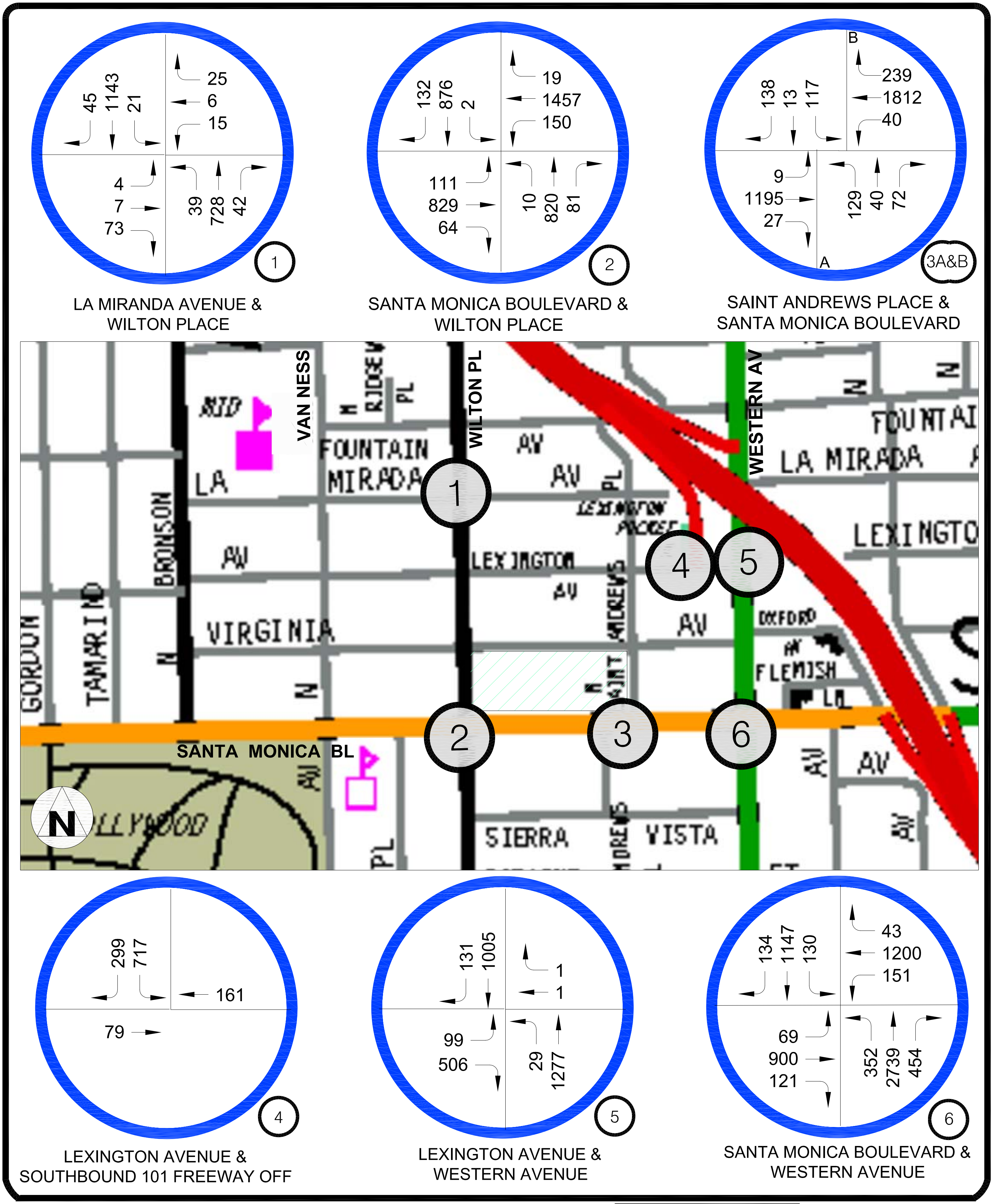

FUTURE WITH PROJECT TRAFFIC VOLUMES AM PEAK HOUR

FIGURE 10a

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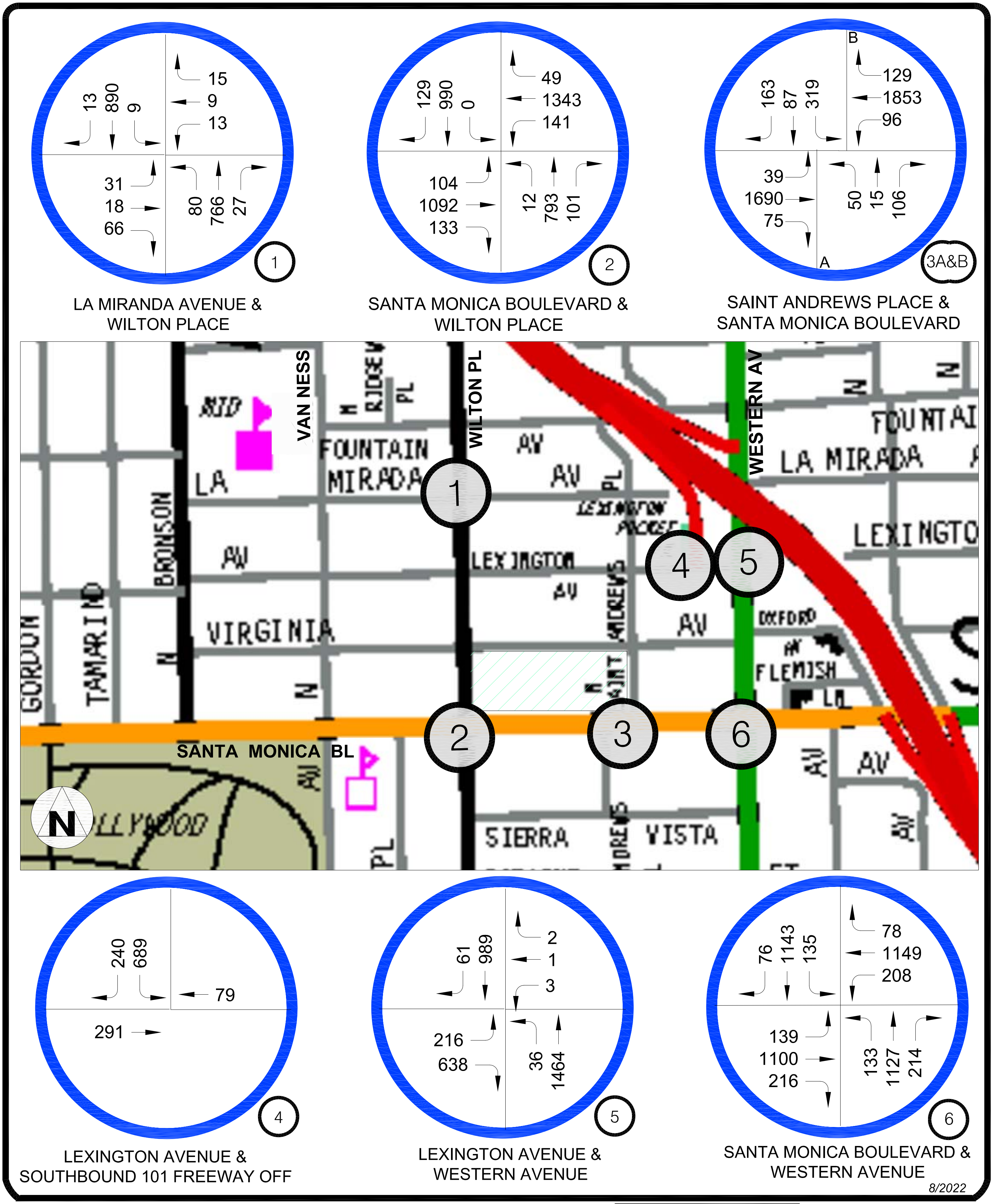

FUTURE WITH PROJECT
TRAFFIC VOLUMES
PM PEAK HOUR

FIGURE 10b

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Traffic Signal Analysis

The stop sign controlled intersections of La Mirada Avenue & Wilton Place and Lexington Avenue & Southbound 101 Freeway Off ramp were found to be operating poorly under existing and future conditions without and with the Project in the operations analysis. These intersections have been evaluated to determine if a full traffic signal is warranted and if the addition of the Project traffic creates the need for a full traffic signal.

The State of California has established "Warrants" to determine if traffic signal control is required at an intersection. A signal analysis was conducted utilizing LADOT Traffic Signal Warrant Worksheets (revised 8-2020) based on the State Warrants incorporating size of the community, traffic volumes, lane configurations, speed limits, distances to other controls, peak hour delay, accidents, number of pedestrians and number of cyclists.

It is common traffic engineering practice to use the Signal Warrant Analysis as a tool to determine if a traffic signal is needed. Meeting one or even more than one traffic signal warrant does not necessarily mean that a traffic signal is the preferred approach to improve traffic conditions at a location. Other items are also considered including potential degradation to progression, alternative improvements such as widening or other traffic controls. The input information for the signal analysis is similar to the intersection analysis. A minimum of eight hours of peak hour traffic data are considered for potentially meeting traffic signal warrants. The six to eight hours of traffic data collected during the AM and PM peak periods was input into the software, comparisons to the relevant tables and graphs were conducted to determine if a traffic signal was warranted.

The traffic lanes, traffic volumes, and pedestrians, as indicated in the count information and the count information + future growth + project were used in the signal analysis.

A brief explanation of each of the warrants[3] is provided on the following pages.

[3] *Based on Warrants 8 User Guide – Copyright 2011 Trafficware Ltd. Page 5-29. LADOT Traffic Signal Warrants Sheets Used in Analysis*

Warrant 1 – Eight-Hour Vehicular Volume

There are two conditions for this warrant. Condition A is the Minimum Vehicular Volume Warrant intended for applications at intersections where large volumes of traffic are the principal reason to consider a new traffic signal. Condition B is the Interruption of Continuous Traffic Warrant intended for use at intersection where the Minimum Vehicular Volume warrant isn't likely to be met, but the main street volumes are high and create excessive delay or conflict for minor street traffic. Either or both conditions may be met for this warrant to be satisfied.

Warrant 2 – Four Hour Vehicular Volume

This warrant's conditions are intended to be met when the high volume of peak hour intersecting traffic is the primary reason for the need of a traffic signal. Four hours of data are evaluated under this warrant.

Warrant 3 – Peak Hour

The Peak Hour Warrant is intended for use at a location where the minor street encounters undue delay when entering or crossing the major street for a at least one hour of a typical day.

Warrant 4 – Pedestrian Volume

Two conditions must be met for the Pedestrian Volume warrant to be considered met. At least 100 pedestrians per hour are required for a minimum of four hours or at least 190 pedestrians within one hour. The second condition checks if a new signal will restrict traffic flow and if there are adequate gaps for pedestrians to cross. The Pedestrian Volume Warrant is intended for use when high volumes of pedestrians encounter extensive delays in crossing a high volume major street.

Warrant 5 – School Crossing

This warrant is for use when school children are crossing a major street. The School Crossing Warrant is intended for use where school children crossing the intersection are the primary reason for considering installation of a new traffic signal. The Project is not adjacent to a school.

Warrant 6 – Coordinated Signal System

Occasionally, in order to maintain proper progressive movement of vehicles through a signal system, it is necessary to install a new traffic signal at a location where it would not otherwise be necessary.

Warrant 7 – Crash Experience

Locations where there are frequent and severe accidents are occasionally considered for installation for a traffic signal if such installation will reduce the frequency and/or severity of the accidents. Traffic accident data was based on City of Los Angeles RoadSafe GIS.

Warrant 8 – Roadway Network

This Warrant uses information from Warrants 1, 2 and 3. It would be met if the new traffic signal would encourage concentration and organization of traffic flow on a roadway network.

Warrant 9 – Intersection Near a Grade Crossing

This Warrant is considered when an intersection is near a grade crossing. The study intersections are not near a grade crossing and this Warrant is not applicable.

Warrant 10 – Bicycles

This Warrant considers the traffic and cyclist volume, accidents including cyclists and the roadway configurations in the area.

Warrant 11 – Activated Pedestrian Warning Device

The location is already improved with a pedestrian traffic signal.

Signal warrants analysis was conducted under existing and future conditions with and without the Project. Traffic counts were conducted from 6 or 7 AM to 10 AM and from 3 PM to 6 or 7 PM. These are historic counts with 1% per year growth added to estimate Existing 2022 and Future 2026 traffic volumes. At the time of the writing of this report, travel patterns have not settled back to a “normal” conditions and historic counts only are being used in order to better simulate future conditions. At the intersection of La Mirada Avenue and Wilton Place, the data is 2 hours short of the 8 hours typically needed for signal warrant analysis. As shown in Table 8, Signal warrant analysis of the intersection of Wilton Place and La Mirada Avenue indicates that 6 hours of the Eight-Hour Vehicle Volume Warrant 1. B-Interruption of Continuous Traffic and 4-hour Vehicle Volume Warrant are met. An additional two hours of data would be needed to assure that the Eight-Hour Vehicle Volume Warrant is met. The traffic signal warrants are met without the Project and with the Project. The Project does not create this potential need. As stated previously, meeting one or even more than one traffic signal warrant does not necessarily mean that a traffic signal is the preferred approach to improve traffic conditions at a location. The Project adds the following peak hour percentage of traffic[3] to the overall volume at the intersections during the existing and future traffic conditions with the Project:

	Existing + Project	Future with Project
La Mirada Av.& Wilton Pl.	4.3 %	4.0 %
Lexington Av. & SB 101 Fwy Off Ramp	12.5%	8.6%

The detailed signal warrant sheets are provided in Attachment J. A summary of the findings is presented in Table 8.

[3] 8 hours of project traffic added (4X AM Peak + 4X PM Peak from Figure 6) were divided by 6 hours of total peak hour volumes at the intersection X 100 for % Project trips in intersection.

Table 8
Summary of Traffic Signal Warrant Analysis
Existing, Existing+ Project, Future Without and With Project

La Miranda Av & Wilton Pl		EXISTING 2022	EXISTING + PROJECT	FUTURE WITHOUT PROJECT	FUTURE WITH PROJECT
Warrant 1	Eight-Hour Vehicular Volume	Not Met	Not Met	Not Met	Not Met
Warrant 2	Four-Hour Vehicular Volume	Not Met	Not Met	Not Met	Not Met
Warrant 3	Peak Hour	Not Met	Not Met	Not Met	Not Met
Warrant 4	Pedestrian Volume	Not Met	Not Met	Not Met	Not Met
Warrant 5	School Crossing	n/a	n/a	n/a	n/a
Warrant 6	Coordinated Signal System	Not Met	Not Met	Not Met	Not Met
Warrant 7	Crash Experience Warrant	n/a	n/a	n/a	n/a
Warrant 8	Roadway Network	Not Met	Not Met	Not Met	Not Met
Warrant 9	Intersection Near a Grade Crossing	n/a	n/a	n/a	n/a
Warrant 10	Bicycles	Not Met	Not Met	Not Met	Not Met
Warrant 11	Pedestrian Activated Yellow Flashing Beacons	n/a	n/a	n/a	n/a

Lexington Av & SB 101 Fwy Off Ramp		EXISTING 2022	EXISTING + PROJECT	FUTURE WITHOUT PROJECT	FUTURE WITH PROJECT
Warrant 1	Eight-Hour Vehicular Volume	Not Met	Not Met	Not Met	Not Met
Warrant 2	Four-Hour Vehicular Volume	Not Met	Not Met	Nof Met	Not Met
Warrant 3	Peak Hour	Not Met	Not Met	Not Met	Not Met
Warrant 4	Pedestrian Volume	Not Met	Not Met	Not Met	Not Met
Warrant 5	School Crossing	n/a	n/a	n/a	n/a
Warrant 6	Coordinated Signal System	Not Met	Not Met	Not Met	Not Met
Warrant 7	Crash Experience Warrant	n/a	n/a	n/a	n/a
Warrant 8	Roadway Network	Not Met	Not Met	Not Met	Not Met
Warrant 9	Intersection Near a Grade Crossing	n/a	n/a	n/a	n/a
Warrant 10	Bicycles	Not Met	Not Met	Not Met	Not Met
Warrant 11	Pedestrian Activated Yellow Flashing Beacons	n/a	n/a	n/a	n/a

n/a = not applicable

Driveway Queue Evaluation

At total of 981 parking spaces will be provided for the Project. Driveway queue evaluation has been conducted using the projected future Project traffic volumes in and out of the Project driveways. As stated previously, there will be 6 Project driveways: Two driveways on Wilton Place, two driveways on Virginia Avenue, and two driveways on St. Andrews Place. The southerly driveways on Wilton Place and St. Andrews Place will provide on-site drop off and pick up areas. The northly driveways on the same streets will provide access to the subterranean parking. The driveways on Virginia Avenue will be for the Studio uses only. The driveways are forecast to operate well as shown in Table 9.

Table 9
Future Driveway Conditions With Project

No.	Intersection	Peak Hour	DIR	Future (2026) With Project Delay (s)*	Future (2026) With Project LOS
A	Wilton Place &	AM	WB	25.4	D
	South Driveway Drop-Off/Pick Up		SBL	10.1	B
		PM	WB	31.9	D
			SBL	10.3	B
B	Wilton Place &	AM	WB	25.2	D
	North Driveway Self Park & Valet		SBL	10.1	B
		PM	WB	71.3	F
			SBL	10.4	B
C	Virginia Avenue &	AM	WBL	7.7	A
	West Driveway Studio Vehicles		NB	9.8	A
		PM	WBL	7.7	A
			NB	9.8	A
D	Virginia Avenue &	AM	WBL	7.4	A
	East Dwy Studio Vehicles & Loading		NB	8.9	A
		PM	WBL	7.7	A
			NB	9.8	A
E	St. Andrews Place &	AM	EB	15.3	C
	North Driveway Self Park & Valet		NBL	9.4	A
		PM	EB	16.8	C
			NBL	8.5	A
F	St. Andrews Place &	AM	EB	10.3	B
	South Driveway Drop-Off/Pick Up		NBL	7.8	A
		PM	EB	12.0	B
			NBL	8.2	A

s = Seconds

The HCS analysis also provides the forecasted number of vehicles in the turning lanes at the driveways as shown in Table 10 on the following page.

Table 10
Future Queues at the Project's New Driveway

No.	Intersection	Peak Hour	With Project TYPICAL QUEUE LENGTH DIRECTION	# of Cars
A	Wilton Place &	AM	WB	0 to 1
	South Driveway Drop-Off/Pick Up		SBL	0 to 1
		PM	WB	0 to 1
			SBL	0 to 1
B	Wilton Place &	AM	WB	0 to 1
	North Driveway Self Park & Valet		SBL	0 to 1
		PM	WB	5 to 6
			SBL	0 to 1
C	Virginia Avenue &	AM	WBL	0 to 1
	West Driveway Studio Vehicles		NB	0 to 1
		PM	WBL	0
			NB	0 to 1
D	Virginia Avenue &	AM	WBL	0
	East Dwy Studio Vehicles & Loading		NB	0
		PM	WBL	0
			NB	0 to 1
E	St. Andrews Place &	AM	EB	0 to 1
	North Driveway Self Park & Valet		NBL	1 to 2
		PM	EB	2 to 3
			NBL	0 to 1
F	St. Andrews Place &	AM	EB	0
	South Driveway Drop-Off/Pick Up		NBL	0 to 1
		PM	EB	0 to 1
			NBL	0

No Project driveway deficiencies have been identified in this analysis.

Access & Circulation Summary Findings

Based on the traffic conditions analysis, no Project access and circulation constraints have been identified. The Project's traffic would not create offsite unacceptable queuing on along the Project driveways on Wilton Place, Virginia Avenue, and St. Andrews Place. The results of this evaluation show that the Project would not create any non–CEQA traffic deficiencies at the Project driveways.

Safety Evaluation

Providing access on two local streets (Virginia Avenue and Saint Andrews Place) and an Avenue III roadway(Wilton Place) reduces the potential impacts along Santa Monica Boulevard, which has been identified as a High Injury Network roadway. The Project would reduce the number of driveways from 3 to 2 driveways on Wilton Place, the Avenue III roadway. Due to the Avenue III roadway designation; mirrors, visual and audio alerts of exiting vehicles is proposed along North Wilton Place. Vehicle conflicts with pedestrians, and bicycles would not be increased along Santa Monica Boulevard, Wilton Place and St. Andrews Place. No deficiencies are apparent in the site access plans which would be considered significant. All emergency ingress/egress associated with the Project would be designed and constructed in conformance to all applicable City Building and Safety Department, LADOT, and LAFD standards and requirements for design and construction. This would also ensure pedestrian safety. There are adequate sidewalks and crosswalks serving the Project Site. There are currently full signal-controlled intersections Santa Monica Boulevard and Wilton Place and Santa Monica Boulevard and St. Andrews Place that provide traffic-controlled pedestrian and cyclist crossing with continental crosswalks. The Project would not affect these facilities.

No access deficiencies are apparent in the site access plans which would be considered significant.

Passenger Loading Evaluation

Passenger loading would be located on–site in surface drop off and pick up areas provided from a driveway on Wilton Place and another driveway on St. Andrews Place. The at-grade on-site drop off areas would serve both rideshare arrivals/departures in the surface parking areas.

State Facility Evaluation –

The proposed Project is situated approximately 1,600 feet west of the Hollywood Freeway (US 101). This facility has been evaluated for potential deficiencies with the Project.

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 off 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 off ramps were evaluated:

- Hollywood Freeway Southbound Off Ramp to Lexington Avenue north of Santa Monica Boulevard.
- Hollywood Freeway Northbound Off Ramp to Santa Monica Boulevard; and,
- Hollywood Freeway Southbound Off Ramp to Harold Way north of Sunset Boulevard.

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 off 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 off 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 11 displays the results of this evaluation.

Table 11a
Study Off Ramp Distribution and Trips

#	Location	Peak Hour	Project Trips In	# of Trips	Over 25 Peak Hour Trips?
A	SB Hollywood Freeway	AM	10%	49	Yes
	Off Ramp to Lexington Avenue	PM	10%	12	NO
B	NB Hollywood Freeway	AM	15%	73	Yes
	Off Ramp to Santa Monica Boulevard	PM	15%	18	NO
C	SB Hollywood Freeway	AM	5%	24	NO
	Off Ramp to Harold Way north of Sunset Bl	PM	5%	6	NO

As shown in Table 11, greater than 25 Project trips may be utilizing two of the nearby off ramps during the peak hours. The Lexington Avenue off ramp has been evaluated for potential deficiencies in the Non-CEQA intersection analysis. Findings for this stop sign-controlled intersection indicate poor operating conditions for east and westbound travel but good operating conditions for the off ramp traffic. A traffic signal analysis was also conducted for the intersection of Lexington Avenue and the Southbound 101 Freeway off ramp which resulted in no signal warrants met during the Existing, Existing +Project, Future without Project and Future with Project traffic conditions.

An evaluation of the off ramp operations was conducted to determine if there would be adequate off ramp storage for calculated queues. The Hollywood Freeway southbound Lexington Avenue off ramp provides approximately 860 feet of queue storage off the freeway main traffic stream for approximately 34 vehicles. The Hollywood Freeway northbound Santa Monica off ramp provides approximately 1500 feet of queue storage off the freeway main traffic stream for approximately 60 vehicles. HCS analysis was conducted to determine if the queue lengths along the off ramps exceed their storage capacity. Table 11b displays the results of this analysis.

Table 11b
Off Ramp Queue Lengths

No.	Intersection	Peak Hour	With Project Off Ramp Queue Length		TOTAL # of Cars On Ramp
			DIR	# of Cars	
A	Southbound Hollywood Freeway Off Ramp	AM	SBL	25	
	& Lexington Avenue		SBR	2	27
		PM	SBL	25	
			SBR	2	27
B	Northbound Hollywood Fwy Off Ramp	AM	NBL	38	
	& Santa Monica Bl		NBR	3	41
		PM	NBL	14	
			NBR	3	17

Sufficient storage capacity is currently provided to accommodate future traffic volumes on both off ramps with the construction of the Project.

Construction Overview

Project construction is evaluated to determine if such activities would substantially interfere with pedestrian, bicycle, transit, or vehicle mobility. Factors to be considered are the location of the Project Site, the functional classification of the adjacent street affected, temporary loss of bus stops or rerouting of transit lines, and the loss of vehicle, bicycle, or pedestrian access. LADOT's TAG lists three areas to be considered when evaluating project construction activities.

1. Temporary Transportation Constraints

As part of the Project's construction, the City may require a Construction Traffic Management Plan (Plan) to be implemented during the construction phase to minimize potential conflicts with vehicles, pedestrians, bicycle, and transit facilities associated with the Project's construction. The Plan should include a construction schedule, the location of any traffic lane or sidewalk closures, any traffic detours, haul routes, hours of operation, access plans to abutting properties, and contact information.

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. Deliveries of construction materials would be coordinated to arrive during non-peak travel periods, to the extent possible, and to occur in the parking lane along the Project Site's roadway frontages. Due to the size of the Project Site, much of the parking and staging can be managed on-site.

For off-site activities, Worksite Traffic Control Plans would be prepared for any temporary traffic lane or sidewalk closures in accordance with City guidelines. These worksite plans would require a formal review and approval by the City prior to the issuance of any construction permits. In addition, the City would require a Truck Haul Route plan including permitted hauling hours and a haul route to and from the landfill.

No detours around the construction site are expected; however, flagmen would be used to control traffic movement during the ingress and egress of construction trucks.

For these reasons, Project construction would not substantially interfere with pedestrian, bicycle or vehicle mobility, and construction impacts would be less than significant.

2. Temporary Loss of Access

Vehicular access to the adjacent properties would be maintained. Safe pedestrian circulation paths adjacent to or around the work areas would be provided, by covered pedestrian walkways if necessary, and would be maintained as required by City-approved Work Area Traffic Control Plans.

As such, Project construction would not result in a complete loss of either vehicular or pedestrian access, and construction impacts related to loss of access would be less than significant.

3. Temporary Loss of Bus Stops or Rerouting of Bus Lines

There is a bus stop located on the northeast corner of Santa Monica Boulevard and Wilton Place adjacent to the Project Site. Coordination with Metro would be conducted to temporarily relocate the stop, if necessary. As such, there would be no loss of pedestrian access to transit stops, and construction impacts on transit operations would be less than significant.

The Project applicant would 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 to manage off-site construction activities

RESIDENTIAL STREET CUT-THROUGH ANALYSIS

A neighborhood street impact analysis methodology is included in the LADOT TAG. The objective of the residential street impact analysis is to determine potential increases in average daily traffic associated with cut-through traffic that can result from a project and impact residential streets. 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.

There are multi-family residential properties located on the north side of Virginia Avenue across from the Project Site. The Project Site fronts on Santa Monica, a major roadway. Speed humps are currently provided on Virginia Avenue between Wilton Place and St. Andrews Place to discourage cut-through traffic. It is estimated that vehicles arriving and departing the Project Site will use Virginia Avenue but cut-through traffic would not find this roadway as a viable alternative to Santa Monica Boulevard. Therefore, no cut-through traffic is expected.

APPENDIX A

LADOT Approved MOU

LADOT

Transportation Assessment Memorandum of Understanding (MOU)

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

I. PROJECT INFORMATION

Project Name: Echelon Studios

Project Address: 5601-5673 W. Santa Monica Bl.,5612-5666 W. Virginia Av.,1110-1118 N. Wilton Pl.

Project Description: Demo existing 98,352sf Sears bldg, construct 91,869sf production stage/studio, 11,468sf prod. support, 6,620sf prod. office, 12,378sf restaurant & 388,286sf of creative office

LADOT Project Case Number: ____________ Project Site Plan attached? *(Required)* ☒ Yes ☐ No

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature[1], that are being considered for this project:

	Reduced Parking Supply[2]	x	Bicycle Parking and Amenities		Parking Cash Out

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc.) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

1 ____________ 4 ____________

2 ____________ 5 ____________

3 ____________ 6 ____________

III. TRIP GENERATION

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

Trip Generation Adjustment *(Exact amount of credit subject to approval by LADOT)*	**Yes**	**No**
Transit Usage	☒	☐
Existing Active or Previous Land Use	☐	☒
Internal Trip	☒	☐
Pass-By Trip	☐	☒
Transportation Demand Management (See above)	☒	☐

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

	IN	OUT	TOTAL
AM Trips	489	82	571
PM Trips	120	411	531

NET Daily Vehicle Trips (DVT)

4,338 DVT (ITE ~~10 ed.~~) 11th Ed.

3,938 DVT (VMT Calculator ver. 1.3)

[1] At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

[2] Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.

IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2026 Ambient Growth Rate: 1 % Per Yr.

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

STUDY INTERSECTIONS and/or STREET SEGMENTS:
(May be subject to LADOT revision after access, safety, and circulation evaluation.) A-F Project Driveways

1 La Miranda Ave & Wilton Pl
2 Santa Monica Bl & Wilton Pl
3 Saint Andrews Pl & Santa Monica Bl
4 Lexington Av & SB 101 Freeway Off
5 Lexington Av & Western Av
6 Santa Monica Bl & Western Av

Provide a separate list if more than six study intersections and/or street segments.

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

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

a. Does the project exceed 1,000 net DVT? ☒ Yes ☐ No
b. 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 Santa Monica
c. 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

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., complete **Attachment C.1: Access Assessment Criteria**.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should also be submitted to the Department of City Planning for cursory review.

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	☒	☐	☐
*Project Vehicle Peak Hour trips at each study intersection	☒	☐	☐
*Project Vehicle Peak Hour trips at each project access point	☒	☐	☐
*Project trip distribution percentages at each study intersection	☒	☐	☐
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	☒	☐	☐
Pedestrian access points and any pedestrian paths	☒	☐	☐
Pedestrian loading zones	☒	☐	☐
Delivery loading zone or area	☒	☐	☐
Bicycle parking onsite	☒	☐	☐
Bicycle parking offsite (in public right-of-way)	☒	☐	☐

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

VIII. FREEWAY SAFETY ANALYSIS SCREENING

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☒ YES ☐ NO

Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

IX. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Liz Fleming, Overland Traffic Consultants	Santa Monica Boulevard Owner, LLC
Address:	952 Manhattan Beach Bl, #100, M.B.	c/o Mr. Matthew Nichols, DLA Piper, LLP
Phone Number:	310 545-1235	550 S. Hope Street, Suite 2400
E-Mail:	liz@overlandtraffic.com	Los Angeles, CA 90071-2618

Approved by: x ______________________ ______________ x [signature] 8/10/22

Consultant's Representative — Date — LADOT Representative — **Date

Adjacent Municipality: ______________________ Approved by: ______________________ ______________

(if applicable) — Representative — Date

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

LADOT Access Assessment Criteria

This Criteria 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: Echelon Studio

Project Address: 5601-5673 W. Santa Monica Bl.,5612-5666 W. Virginia Av., 1110-1118 N. Wilton Pl.

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LADOT Project Case Number: ____________________

II. PEDESTRIAN/ PERSON TRIP GENERATION

Source of Pedestrian/Person Trip Generation Rate(s)? ☒ VMT Calculator ☒ ITE 10th Edition ☐ Other:

	Land Use	Size/Unit	Daily Person Trips
Proposed	Production stage/studio	91,869 sf	152
	Production Support Production Office	11,468 sf 6,620 sf	19 11
	Restaurant Creative Office	12,378 sf 388,268 sf	56 641
		Total new trips:	867

Pedestrian/Person trip generation table including a description of the proposed land uses, trip credits, person trip assumptions, comparison studies used for reference, etc. attached? ☒ Yes ☐ No

III. PEDESTRIAN ATTRACTORS INVENTORY

Attach Pedestrian Map for the area (1,320 foot radius from edge of the project site) depicting:

- site pedestrian entrance(s)
- Existing or proposed passenger loading zones
- pedestrian generation/distribution values
  - Geographic Distribution: N 25 % S 25 % E 25 % W 25 %
- transit boarding and alighting of transit stops (should include Metro rail stations; Metro, DASH, and other municipal bus stops)
- Key pedestrian destinations with hours of operation:
  - schools (school times)
  - government offices with a public counter or meeting room
  - senior citizen centers
  - recreation centers or playgrounds
  - public libraries
  - medical centers or clinics
  - child care facilities
  - post offices

- places of worship
- grocery stores
- other facilities that attract pedestrian trips

- pedestrian walking routes to key destinations from project site

Note: Pedestrian Count Summary, Bicycle Count Summary, Manual Traffic Count Summary will need to be attached to the Transportation Assessment

IV. FACILITIES INVENTORY

Is a High Injury Network street located within 1,320 foot radius from the edge of the project site? ☐ Yes ☒ No

If yes, list streets and include distance from the project:

Santa Monica Boulevard at 0 (feet)

Wilton Place north of Santa Monica Bl at 0 (feet)

Western Avenue at 500 (feet)

__________ at _____(feet)

Attach Radius Map for the area (1,320 foot radius from edge of the project site) depicting the following existing and proposed facilities:

- transit stops
- bike facilities
- traffic control devices for controlled crossings
- uncontrolled crosswalks
- location of any missing, damaged or substandard sidewalks

For a reference of planned facilities, see the Transportation Assessment Support Map

Crossing Distances

Does the project property have frontage along an arterial street (designated as either an Avenue or Boulevard?)

☒ Yes ☐ No Santa Monica Boulevard

If yes, provide the distance between the crossing control devices (e.g. signalized crosswalk, or controlled mid-block crossing) along any arterial within 1,320 feet of the property.

0 (feet) at Santa Monica Bl & St.Andrews Pl(E&W)
500 (feet) at Santa Monica Bl & Western Av
1,160 (feet) at Santa Monica Bl & Oxford Av
0 (feet) at Santa Monica Bl & Wilton Pl
660 (feet) at Santa Monica Bl & Van Ness Av
1312 (feet) at Santa Monica Bl & Bronson Av
400 (feet) at Wilton Pl & Lexington Av
735 (feet) at Wilton Pl & La Mirada Av
735 (feet) at Van Ness Av & La Mirada Av
1100 (feet) at Wilton Pl & Fountain Av
1100 (feet) at Van Ness Av & Fountain Av
_____(feet) at __________

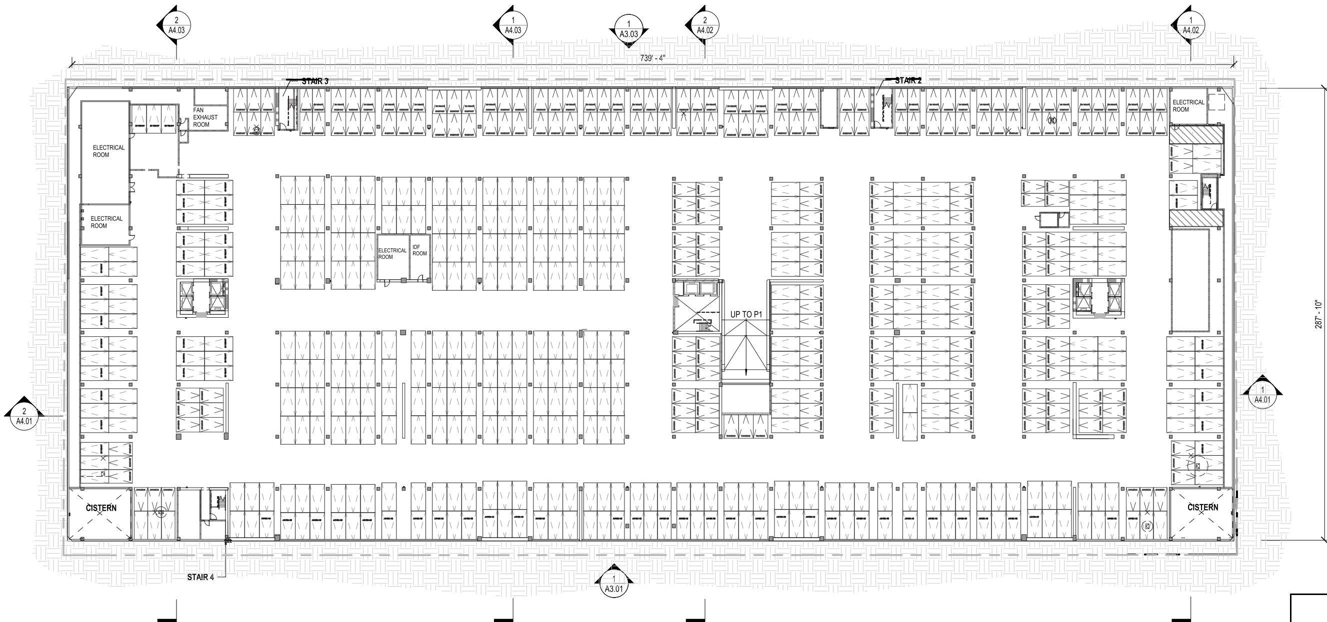
V. Project Construction

Will the project require any construction activity within the city right-of-way? ◻ Yes ◻ No Unknown at this time

If yes, will the project require temporary closure of any of the following city facilities?

- sidewalk Potentially
- bike lane No
- parking lane Potentially
- travel lane Potentially
- bus stop No
- bicycle parking (racks or corrals) No
- bike share or other micro-mobility station No
- car share station No
- parklet No
- other: ___________________________


HOLLYWOOD



LEVEL	TOTAL STALLS	ACCESSIBLE PARKING SPACES	EV CHARGING SPACES: EV CHARGING STATIONS (EVCS)	EV CHARGING SPACES: EV READY SPACES (EVR)	STANDARD STALLS (INCLUDES ACCESSIBLE)	COMPACT STALLS
P1	355	20	99	107	281	74
P2	626	0	0	89	404	222
TOTAL	981	20	99	196	685	296

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

LEVEL P2 (1)
1/32" = 1'-0"

RIOS

3101 W EXPOSITION PLACE
LOS ANGELES, CA 90018
PH: 323.785.1800
FAX: 323.785.1801
rios.com

PROJECT ID 20283

CONSULTANT

NOT FOR CONSTRUCTION

ECHELON STUDIOS
5601 W. Santa Monica Blvd.
Los Angeles, CA 90038

REVISIONS
2 02.09.22 REVISED SUBMITTAL
3 **07.01.22 REVISED SUBMITTAL**

ISSUES
02.14.22 ENTITLEMENT SUBMITTAL
02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

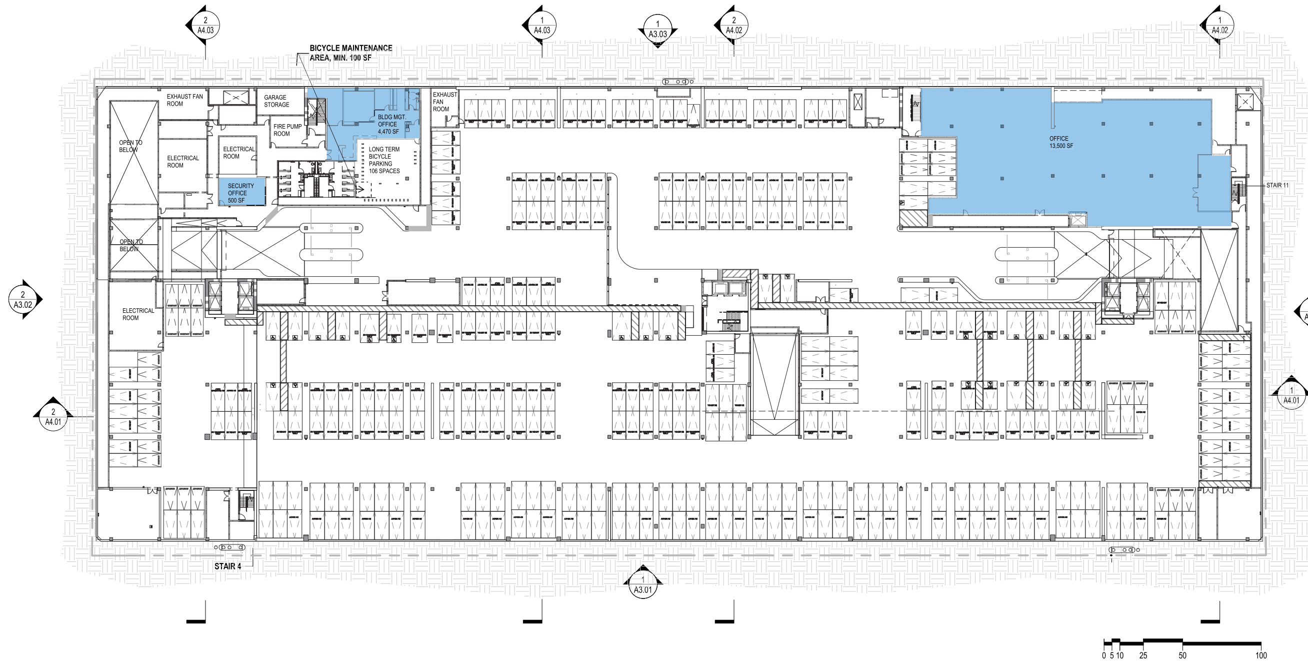
FILENAME [TYPE FILE NAME]

DRAWING TITLE PARKING PLAN - P2

DATE 07.01.22

SCALE As indicated (WHEN PRINTED ON 30"X42" SHEET)

DRAWING NO. **A2.03**



LEVEL	TOTAL STALLS	ACCESSIBLE PARKING SPACES	EV CHARGING SPACES: EV CHARGING STATIONS (EVCS)	EV CHARGING SPACES: EV READY SPACES (EVR)	STANDARD STALLS (INCLUDES ACCESSIBLE)	COMPACT STALLS
P1	355	20	99	107	281	74
P2	626	0	0	89	404	222
TOTAL	981	20	99	196	685	296

LEVEL P1	
OFFICE	18,470
RESTAURANT	-
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	18,470 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

LEVEL P1 (1)
1/32" = 1'-0"

RIOS

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CONSULTANT

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ECHELON STUDIOS
5601 W. Santa Monica Blvd.
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REVISIONS
2 02.09.22 REVISED SUBMITTAL
3 **07.01.22 REVISED SUBMITTAL**

ISSUES
02.14.22 ENTITLEMENT SUBMITTAL
02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

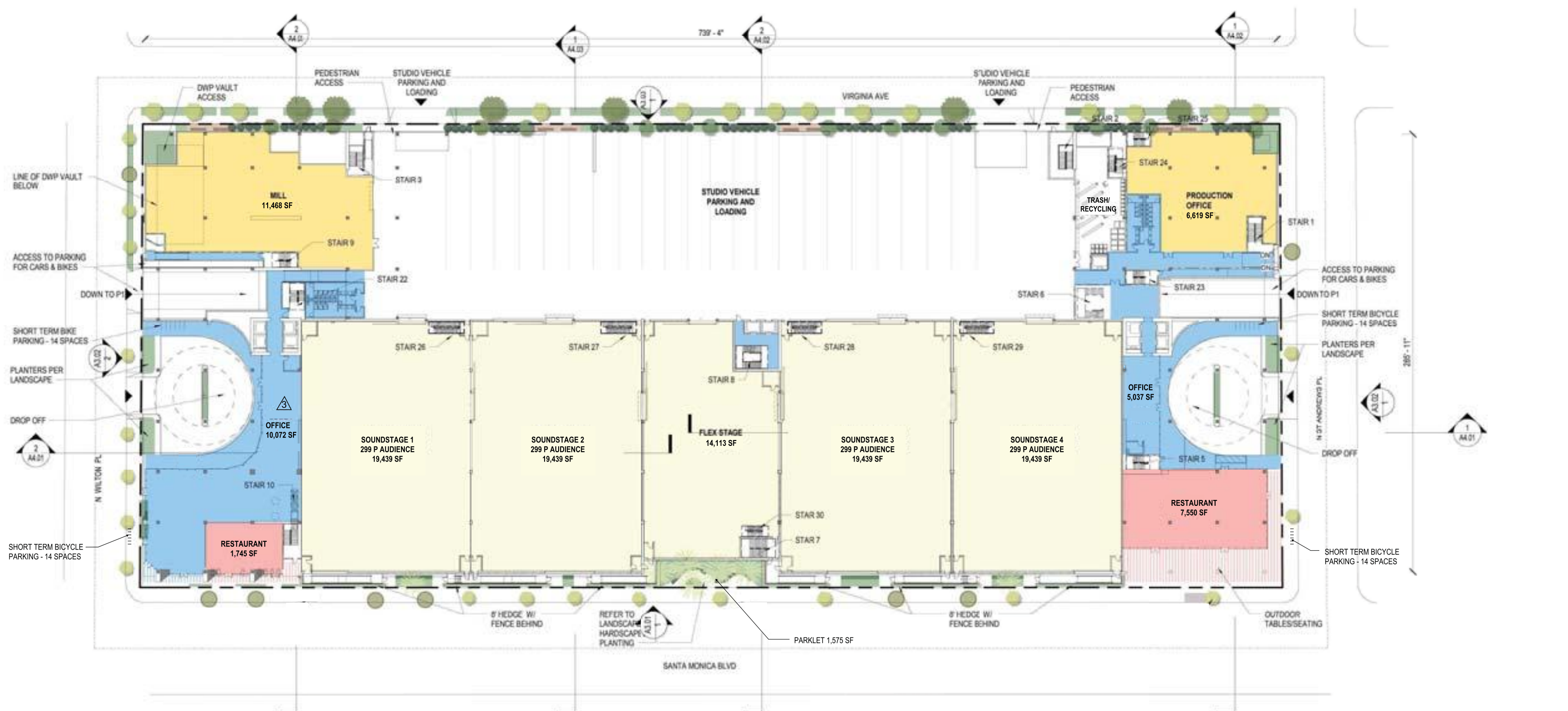
FILENAME [TYPE FILE NAME]

DRAWING TITLE PARKING PLAN - P1

DATE 07.01.22

SCALE As indicated (WHEN PRINTED ON 30"X42" SHEET)

DRAWING NO. **A2.04**



LEVEL 01	
OFFICE	15,109
RESTAURANT	9,295
PRODUCTION	91,870
PRODUCTION SUPPORT	18,087
AREA - SUBTOTAL	134,361 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

0 5 10 25 50 100

LEVEL 1 (1)
1/32" = 1'-0"

RIOS

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20283

NOT FOR CONSTRUCTION

ECHELON STUDIOS
5601 W. Santa Monica Blvd.
Los Angeles, CA 90038

1 09.01.21 REVISED SUBMITTAL
2 02.09.22 REVISED SUBMITTAL
3 **07.01.22 REVISED SUBMITTAL**

05.03.21 ENTITLEMENT SUBMITTAL
09.01.21 REVISED SUBMITTAL
02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

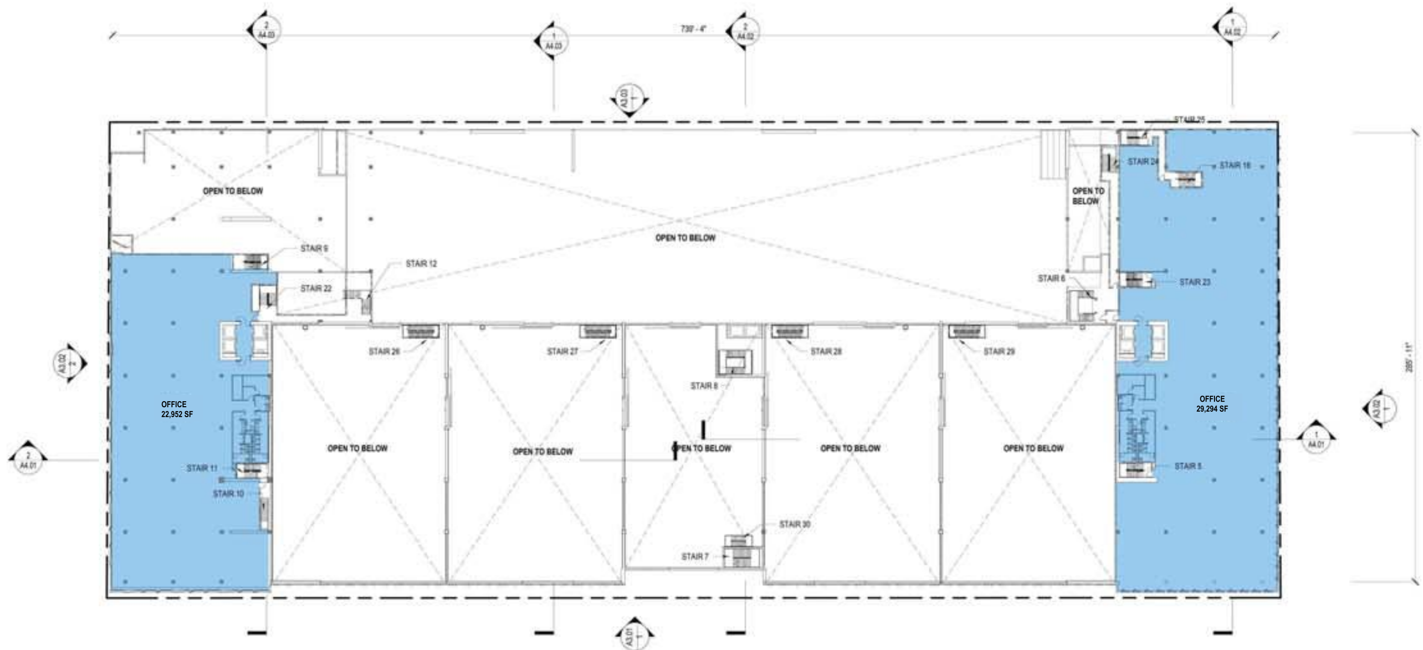
[TYPE FILE NAME]

FLOOR PLAN - LEVEL 1

07.01.22

As indicated

A2.05



LEVEL 02	
OFFICE	52,246
RESTAURANT	-
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	52,246 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

0 5 10 25 50 100

LEVEL 2 (1)
1/32" = 1'-0"

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5601 W. Santa Monica Blvd.
Los Angeles, CA 90038

1 09.01.21 REVISED SUBMITTAL
2 02.09.22 REVISED SUBMITTAL
3 **07.01.22 REVISED SUBMITTAL**

05.01.21 ENTITLEMENT SUBMITTAL
09.01.21 REVISED SUBMITTAL
02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

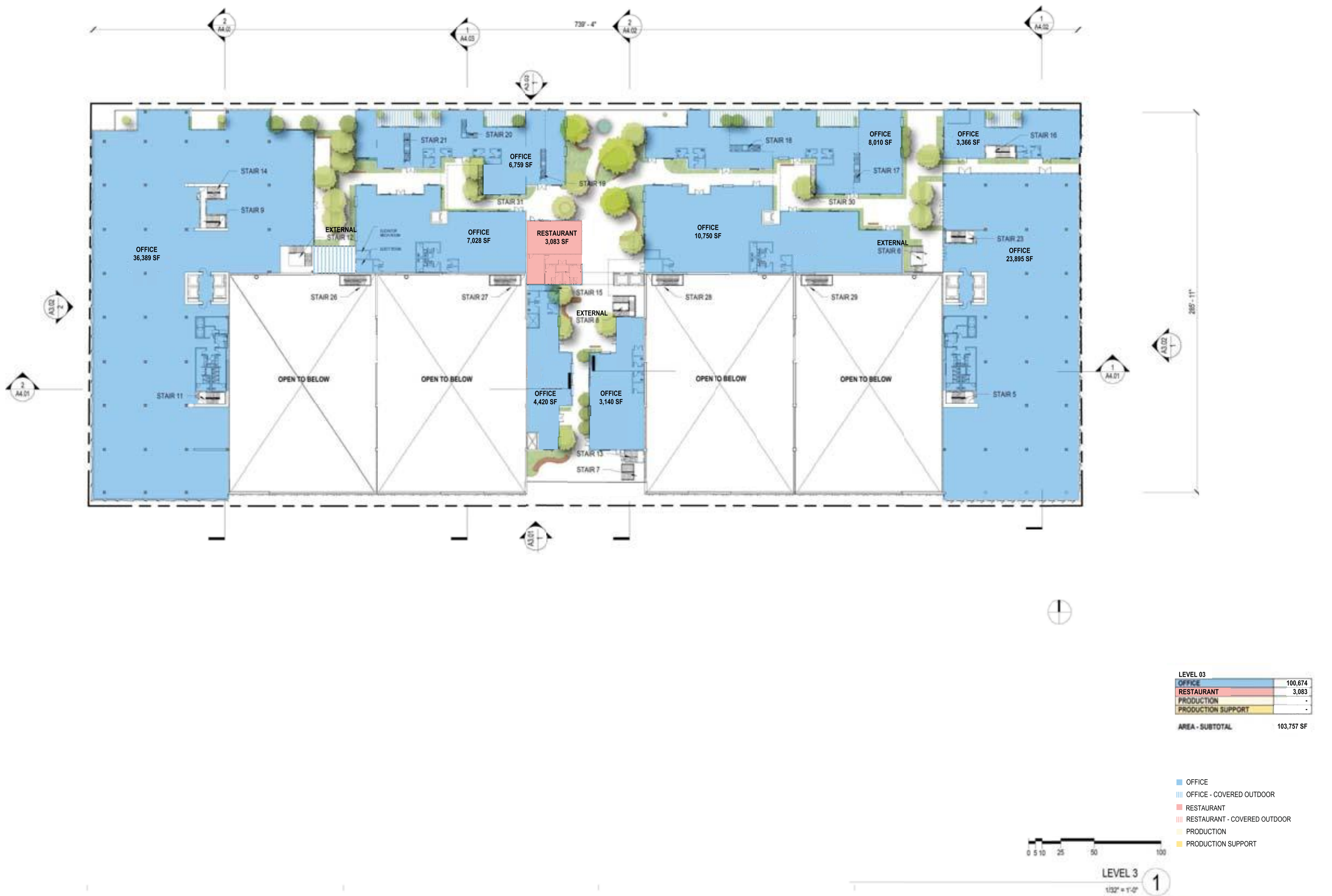
[TYPE FILE NAME]

FLOOR PLAN - LEVEL 2

07.01.22

As indicated

A2.06



LEVEL 03

OFFICE	100,674
RESTAURANT	3,083
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	103,757 SF

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02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

[TYPE FILE NAME]

FLOOR PLAN - LEVEL 3

07.01.22

As indicated

A2.07

LEVEL 04

OFFICE	84,718
RESTAURANT	-
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	84,718 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

0 5 10 25 50 100

LEVEL 4 (1)
1/32" = 1'-0"

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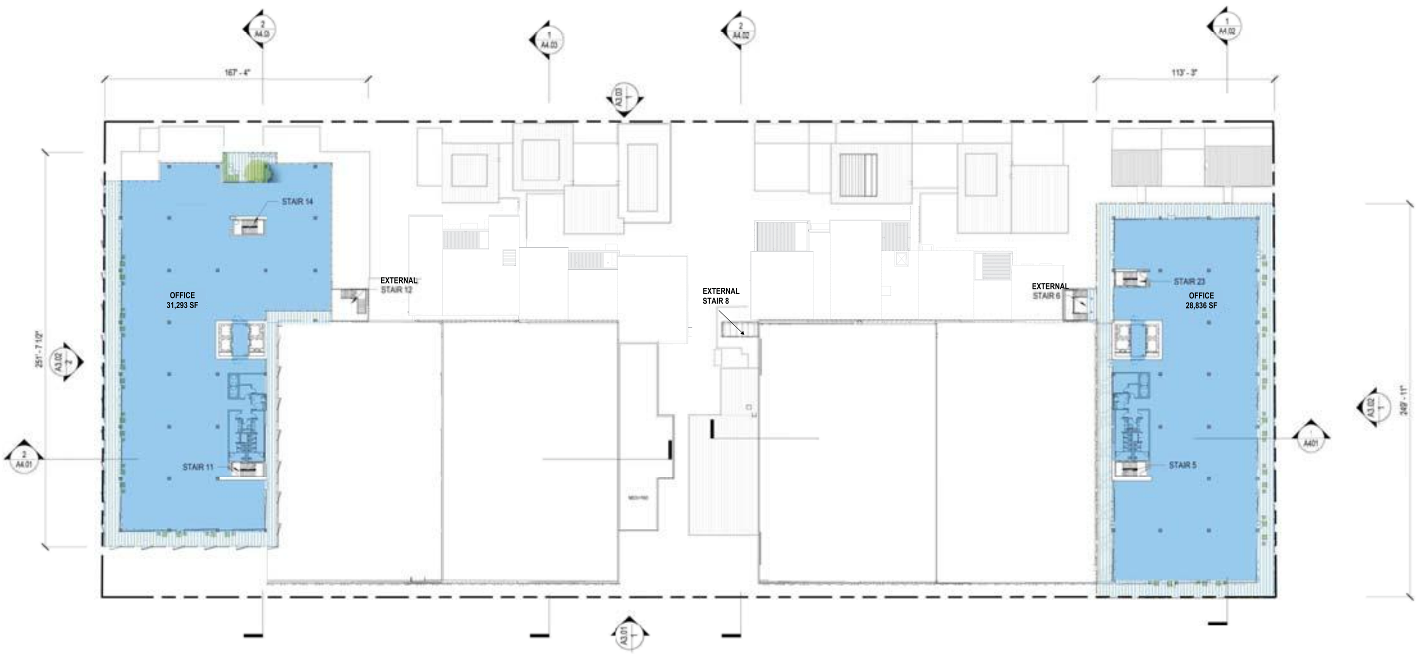
FLOOR PLAN - LEVEL 4

07.01.22

As indicated

A2.08



LEVEL 5
1/32" = 1'-0"

LEVEL 05	
OFFICE	60,129
RESTAURANT	-
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	60,129 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

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02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

[TYPE FILE NAME]

FLOOR PLAN - LEVEL 5

07.01.22

As indicated

A2.09

LEVEL 06	
OFFICE	56,940
RESTAURANT	-
PRODUCTION	-
PRODUCTION SUPPORT	-
AREA - SUBTOTAL	56,940 SF

- OFFICE
- OFFICE - COVERED OUTDOOR
- RESTAURANT
- RESTAURANT - COVERED OUTDOOR
- PRODUCTION
- PRODUCTION SUPPORT

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07.01.22 REVISED SUBMITTAL

[TYPE FILE NAME]

FLOOR PLAN -
LEVEL 6

07.01.22

As indicated

A2.10

Introduction

Trip Generation is based on the ITE Trip Generation,11th Edition (ITE Manual) for Creatiive Office, Office Associated with Production Stage/Studio & Restaurant

The ITE Office Land Use (Code 710) provides trip generation as both a fitted curve and average rate

- Based on a graphs presented in the ITE Manual, the average rate appears to represent office of less than approximately 200,000 sf more accurately and the fitted curve appears to represent offices of greater than approximately 200,000 sf
- The office component of the studio is less than appx. 200,000 sf and the office trip generation average rate is used
- The creative office component of the project is greater than 200,000 sf and the office fitted curve trip generation was used.
- The fitted curve, for the office uses, is a natural logrithmic equation (Ln) ond is presented below the trip generation rates.

Production Stage/Studio incudes the sound tages and flex space (4x19,439sf)+14,113sf))

Production Support includes mill & support services,

Production Office includes ancillary office associated with the Sound Stage/Studios

Trip Generation Rates/Equations - 11TH EDITION ITE

ITE Code	Description	Daily Traffic	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
710	General Office (Equation) for Creative Office	a	88%	12%	b	17%	83%	c
710	General Office (Rate) for Production Office	10.84	88%	12%	1.52	17%	83%	1.44
*	Production Support	4.14	65%	35%	0.61	45%	55%	0.57
*	Production Stage/Studio	5.91	63%	37%	0.20	40%	60%	0.43
932	Restaurant	107.20	55%	45%	9.57	61%	39%	9.05

* Based on empirical rates from Transportation Assessment for NBC Universal Evolution Plan EIR and Transportation Assesment for 8th & Alameda Studio Project (8-2021), by Gibson With ITE based rates updated to 11th Edition

a $Ln(T)=0.87Ln(x)+3.05$ T = Trips & x = sf/1000

b $Ln(T)=0.88Ln(x)+1.16$

c $Ln(T)=0.83Ln(x)+1.29$

All rates per 1,000 sf

Project trips

ITE Code	Description	Size	Daily Traffic	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
*	Production Stage/Studio	91,869 sf	543	12	6	18	16	24	40
*	Production Support	11,468 sf	47	4	3	7	3	4	7
710	Production Office (rate)	6,620 sf	72	9	1	10	2	8	10
	Subtotal Production Stage/Studio, Support & Office	**109,957 sf**	**662**	**25**	**10**	**35**	**21**	**36**	**57**
932	Restaurant	12,378 sf	1,327	35	28	63	68	44	112
	Internal Retail Trips	50%	(663)	(17)	(15)	(32)	(34)	(22)	(56)
	Subtotal Restaurant	**12,378 sf**	**664**	**18**	**13**	**31**	**34**	**22**	**56**
710	**Creative Office (Equation)**	**388,286 sf**	**3,777**	**533**	**73**	**606**	**87**	**425**	**512**
	Subtotal Proposed		**5,103**	**576**	**96**	**672**	**142**	**483**	**625**
	Transit Reduction	15%	(765)	(87)	(14)	(101)	(22)	(72)	(94)
	PROPOSED TOTAL	**510,621 sf**	**4,338**	**489**	**82**	**571**	**120**	**411**	**531**

Nearby Transit for 15% Reduction

Metro Route 4 & Rapid Route 704 along Santa Monica Bl, stops for both at Western appx. 500' east, and Route 4 only at Wilton immediately adjacent

Metro Route 207 & Rapid Route 757 along Western with stop at Santa Monica & Western

Walk Trip Generation Rates

ITE Code	Description	Daily	AM Peak Hour Total	PM Peak Hour Total
710	Office	5X(AM+PM)	0.16	0.17
932	High Turnover Restaurant*	5X(AM+PM)	0.45	0.45

* No rate for PM Peak Hour, Used AM Rate for PM Peak Hour

** No Daily rates, used 5x(AM+PM Peak Hour rates)

Walk Trip Generation

ITE Code	PROJECT PEDESTRIAN TRIPS Description	Size	Daily	AM Peak Hour Total	PM Peak Hour Total
710	Sound Stages	91,869 sf	152	15	16
710	Support Area	11,468 sf	19	2	2
710	Production Office	6,620 sf	11	1	1
710	Creative Office	388,268 sf	641	62	66
820	Restaurant	12,378 sf	56	6	6
	NEW Pedestrian TRIPS TOTAL		**867**	**84**	**89**

Limited ITE Land Uses, Used Office rates for Production Stages/Studios & Production Support & Production Office

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: Echelon Studio
Scenario:
Address: 5643 W SANTA MONICA BLVD, 90038

Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit 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
Office | General Office	498.243	ksf
Retail | High-Turnover Sit-Down Restaurant	12.378	ksf
Office | General Office	498.243	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	3,938 Daily Vehicle Trips
0 Daily VMT	27,585 Daily VMT

Tier 1 Screening Criteria

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

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	3,938 Net Daily Trips
The net increase in daily VMT ≤ 0	27,585 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	12.378 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

8/1/2022

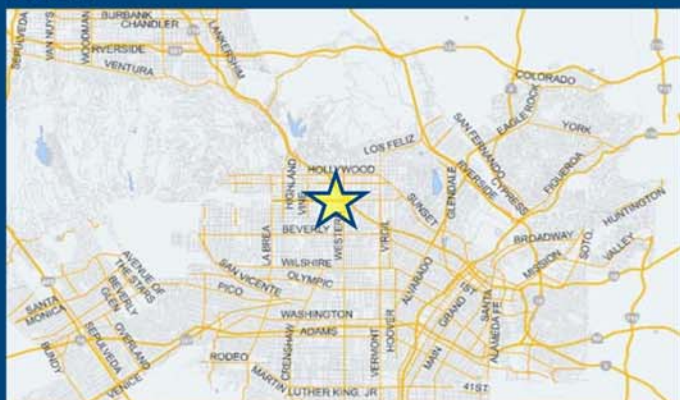
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: Echelon Studio

Scenario:

Address: 5643 W SANTA MONICA BLVD, 90038



Proposed Project Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	12.378	ksf
Office | General Office	498.243	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 — ☐ Proposed Prj ☐ Mitigation
- 1103 city code parking provision for the project site
- 1112 actual parking provision for the project site

Unbundle Parking — ☐ Proposed Prj ☐ Mitigation
- monthly parking cost (dollar) for the project site

Parking Cash-Out — ☐ Proposed Prj ☐ Mitigation
- percent of employees eligible

Price Workplace Parking — ☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- percent of employees subject to priced parking

Residential Area Parking Permits — ☐ Proposed Prj ☐ Mitigation
- 200 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
3,889 Daily Vehicle Trips	**3,889** Daily Vehicle Trips
27,241 Daily VMT	**27,241** Daily VMT
0.0 Household VMT per Capita	**0.0** Household VMT per Capita
6.7 Work VMT per Employee	**6.7** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

8/1/2022

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	*0*	*DU*
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	12.378	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	General Office	498.243	ksf
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 1, 2022
Project Name: Echelon Studio
Project Scenario:
Project Address: 5643 W SANTA MONICA BLVD, 90038

Version 1.3

Analysis Results

Total Employees: 2,042
Total Population: 0

Proposed Project		*With Mitigation*	
3,889	**Daily Vehicle Trips**	**3,889**	**Daily Vehicle Trips**
27,241	**Daily VMT**	**27,241**	**Daily VMT**
0	**Household VMT per Capita**	**0**	**Household VMT per Capita**
6.7	**Work VMT per Employee**	**6.7**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

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

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

TDM Strategy Inputs

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

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

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
MAX. TDM EFFECT	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*

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

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

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: August 1, 2022
Project Name: Echelon Studio
Project Scenario:
Project Address: 5643 W SANTA MONICA BLVD, 90038

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	7.9	0	0
Home Based Other Production	0	0.0%	0	5.1	0	0
Non-Home Based Other Production	757	-4.2%	725	7.0	5,299	5,075
Home-Based Work Attraction	2,411	-32.0%	1,639	8.4	20,252	13,768
Home-Based Other Attraction	1,581	-46.3%	849	5.6	8,854	4,754
Non-Home Based Other Attraction	757	-4.2%	725	5.5	4,164	3,988

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	-1.2%	0	0	-1.2%	0	0
Home Based Other Production	-1.2%	0	0	-1.2%	0	0
Non-Home Based Other Production	-1.2%	716	5,012	-1.2%	716	5,012
Home-Based Work Attraction	-1.2%	1,619	13,596	-1.2%	1,619	13,596
Home-Based Other Attraction	-1.2%	838	4,695	-1.2%	838	4,695
Non-Home Based Other Attraction	-1.2%	716	3,938	-1.2%	716	3,938

MXD VMT Methodology Per Capita & Per Employee

Total Population: 0
Total Employees: 2,042
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**0**	**0**
Total Home Based Work Attraction VMT	**13,596**	**13,596**
Total Home Based VMT Per Capita	**0.0**	**0.0**
Total Work Based VMT Per Employee	**6.7**	**6.7**

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 CONSULTANTS
Address:	952 MANHATTAN BCH BL #100
Phone:	
Email Address:	LIZ@OVERLANDTRAFFIC.COM
Date:	8-3-22

#	Location	Peak Hour	Project Trips In	# of Trips	Over 25 Peak Hour Trips?
A	SB Hollywood Freeway	AM	10%	49	Yes
	Off Ramp to Lexington Avenue	PM	10%	12	NO
B	NB Hollywood Freeway	AM	15%	73	Yes
	Off Ramp to Santa Monica Boulevard	PM	15%	18	NO
C	SB Hollywood Freeway	AM	5%	24	NO
	Off Ramp to Harold Way n/o Sunset	PM	5%	6	NO

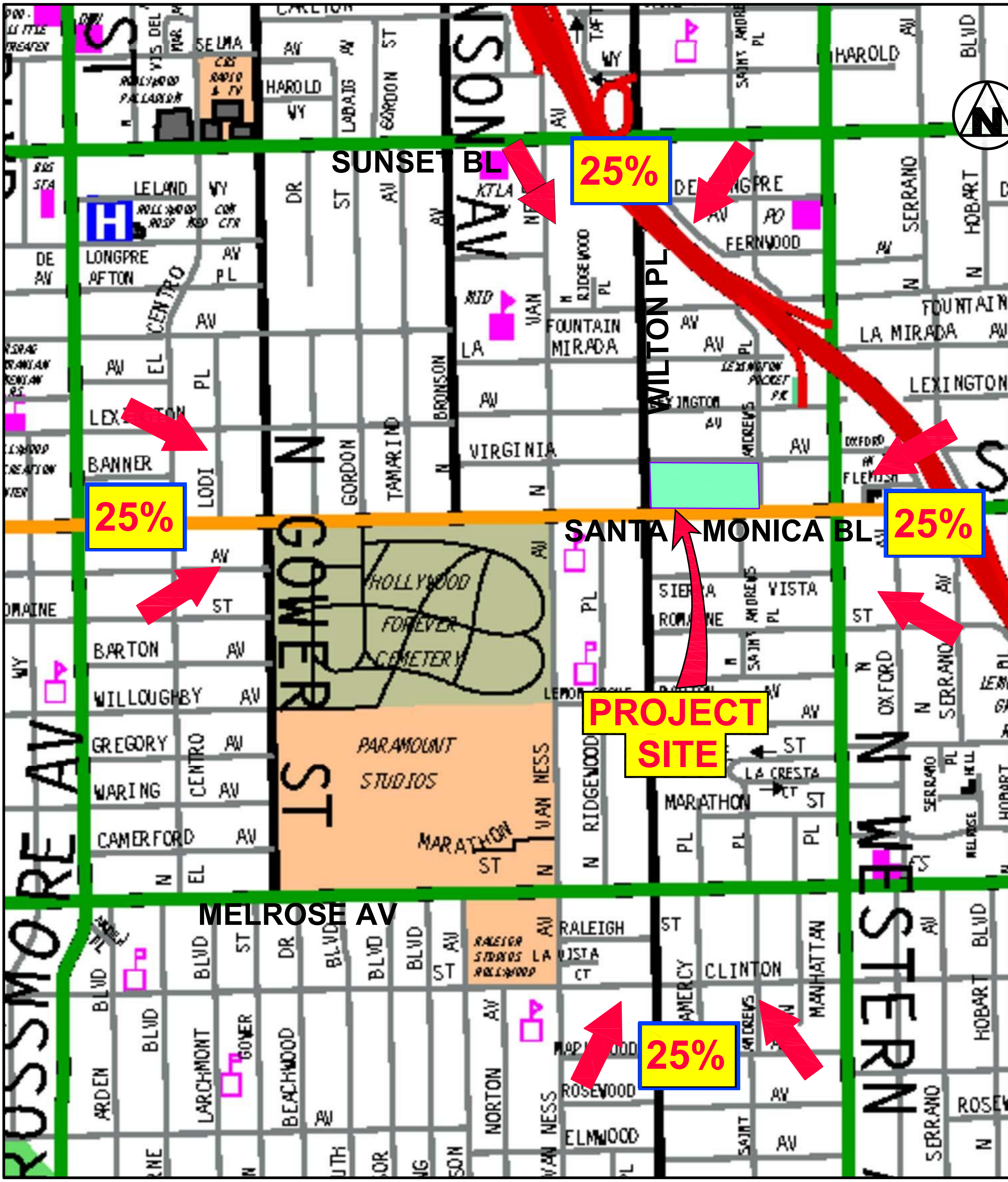


FIGURE 1

5/2021

OVERALL PROJECT TRIP DISTRIBUTION

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

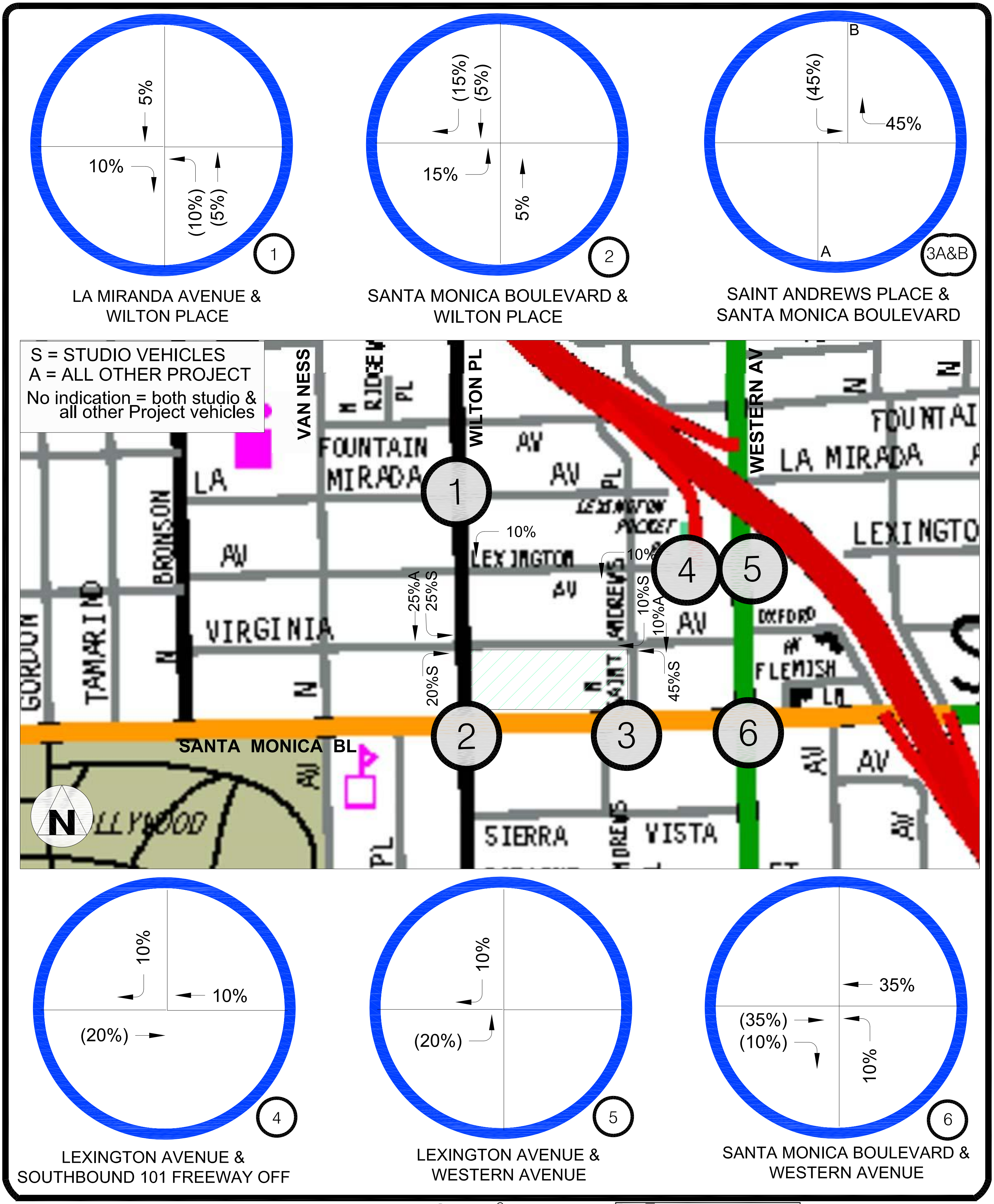


FIGURE 2

PROJECT TRAFFIC ASSIGNMENT DISTRIBUTION
AT STUDY INTERSECTIONS IN / (OUT)

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

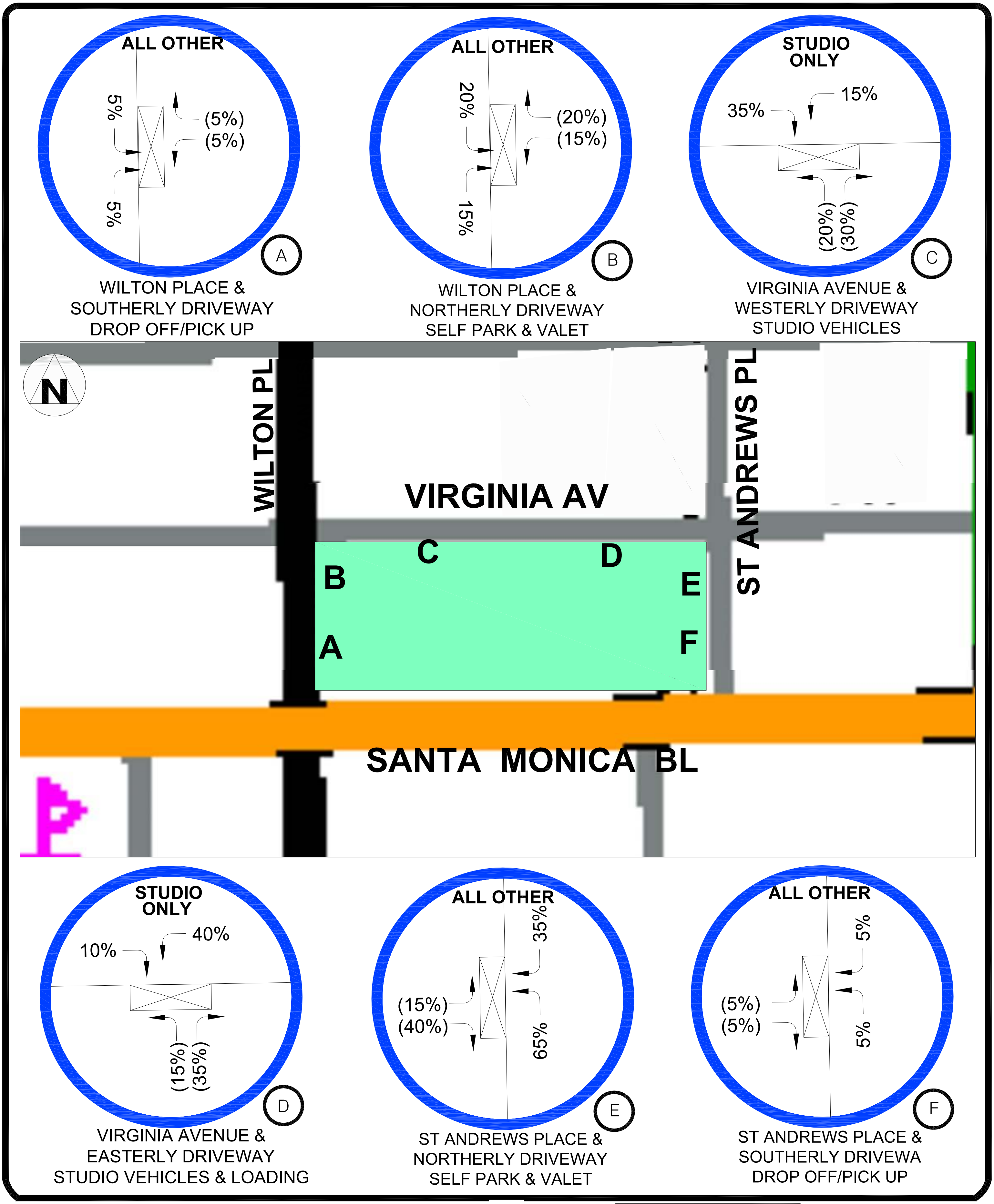
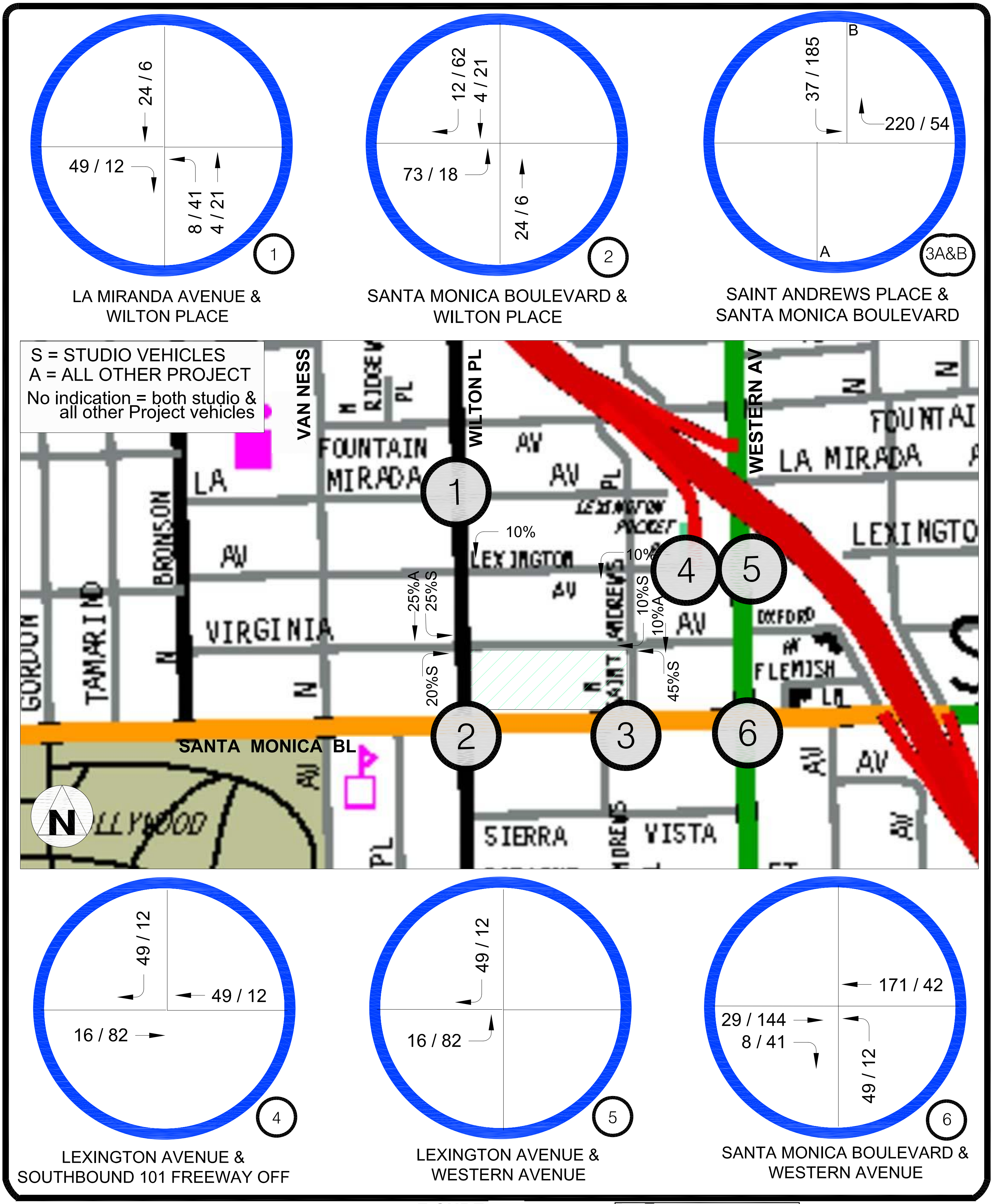


FIGURE 3

PROJECT TRAFFIC ASSIGNMENT DISTRIBUTION AT PROJECT DRIVEWAYS

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

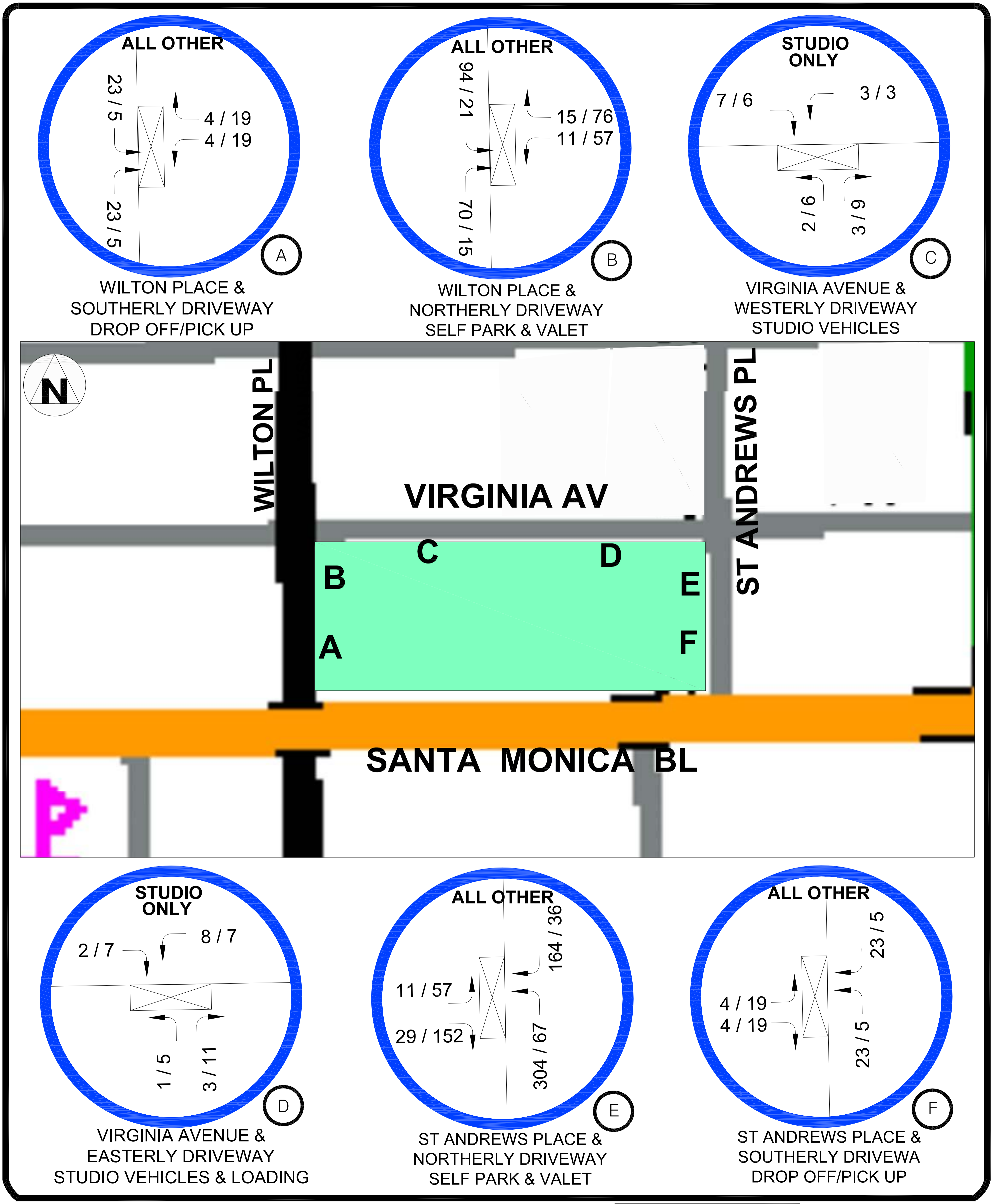


PROJECT TRAFFIC VOLUMES AT STUDY INTERSECTIONS AM PEAK HOUR/PM PEAK HOUR

FIGURE 4

Overland Traffic Consultants, Inc.

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



PROJECT TRAFFIC VOLUMES ONLY
DRIVEWAYS
AM PEAK HOUR/PM PEAK HOUR

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

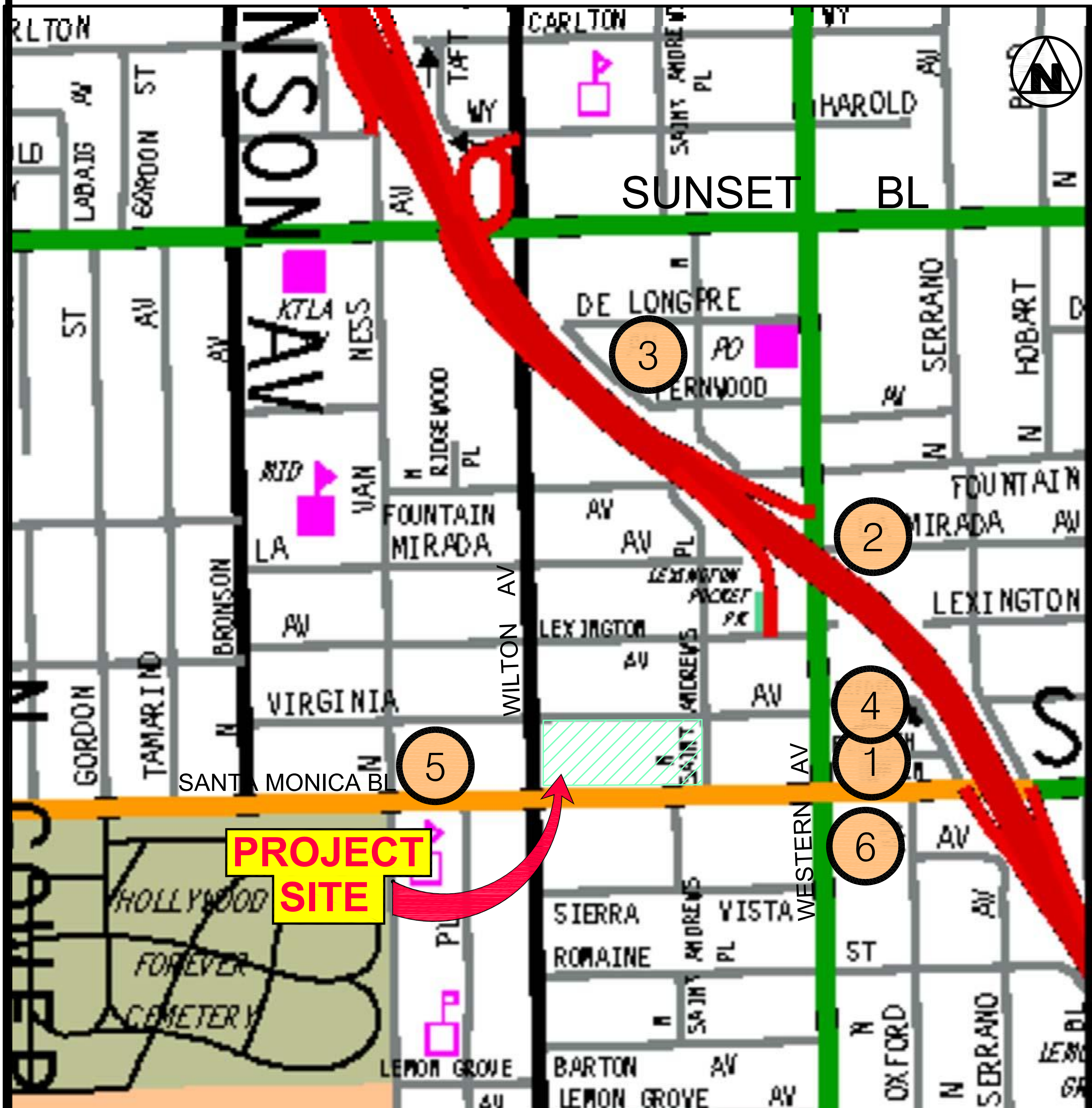


Figure 6

6/2021

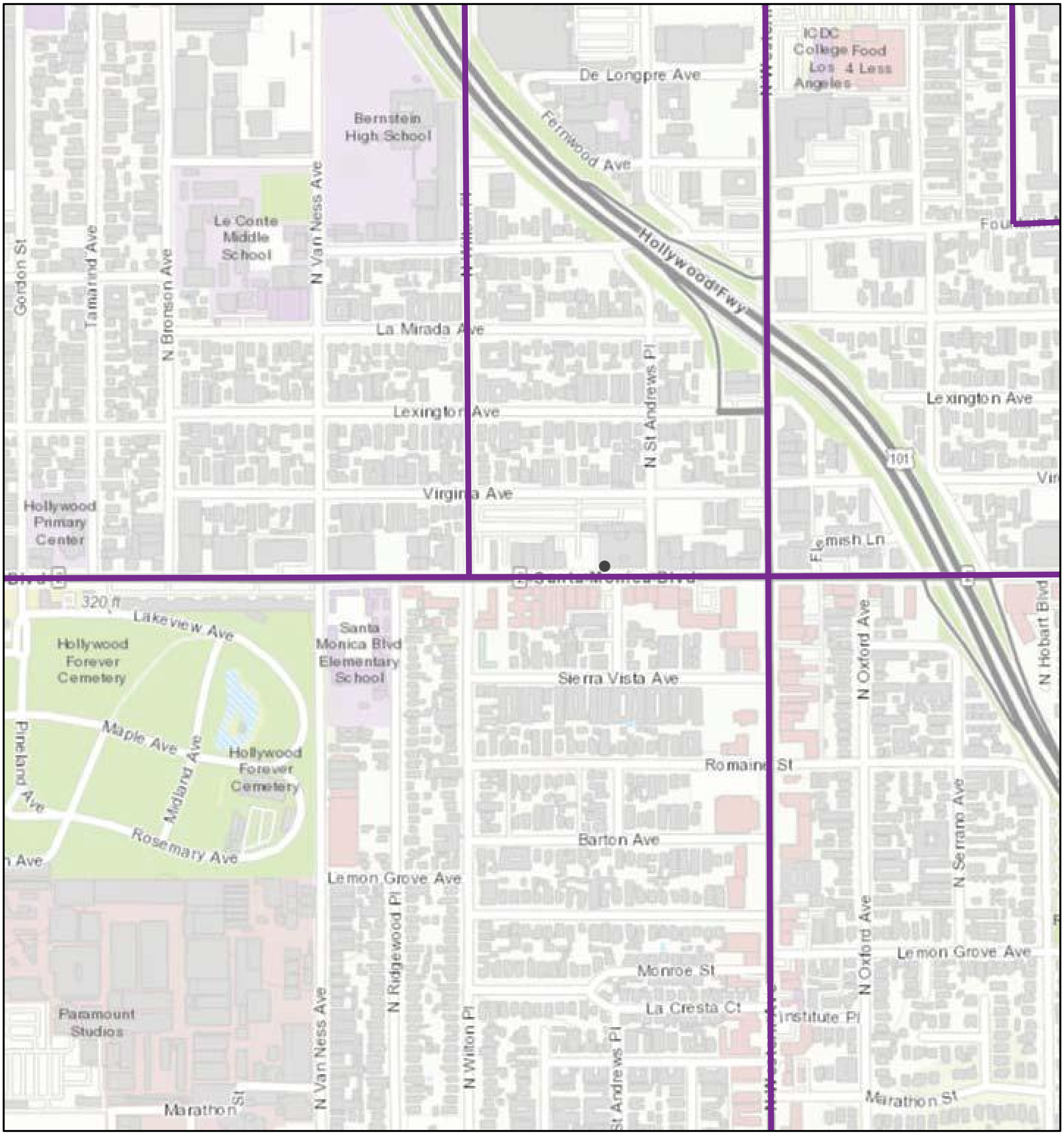
RELATED PROJECT LOCATION MAP

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

RELATED PROJECT LIST
5601 SANTA MONICA

#	Project	Size	Location	Daily Traffic	AM Peak Hour			PM Peak Hours		
					In	Out	Total	In	Out	Total
1	Apartments	68 units	5245 Santa Monica Bl	857	3	29	32	45	28	73
	Retail	51,674 sf								
2	Apartments	75 units	5460 Fountain Avenue	424	7	26	33	23	17	40
3	Apartments	185 units	5632 De Longpre Avenue	800	-31	25	-6	50	19	69
4	Apartments	65 units	5430 Virginia Avenue	435	7	21	28	21	11	32
5	Office	180,073 sf	5731 Santa Monica Bl	1112	128	12	140	14	119	133
6	Apartments	735 units	5420 Santa Monica Bl	8655	10	205	215	167	65	232
	Commercial	95,000 sf								

High Injury Network



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1:9,028

0 0.05 0.1 0.2 mi

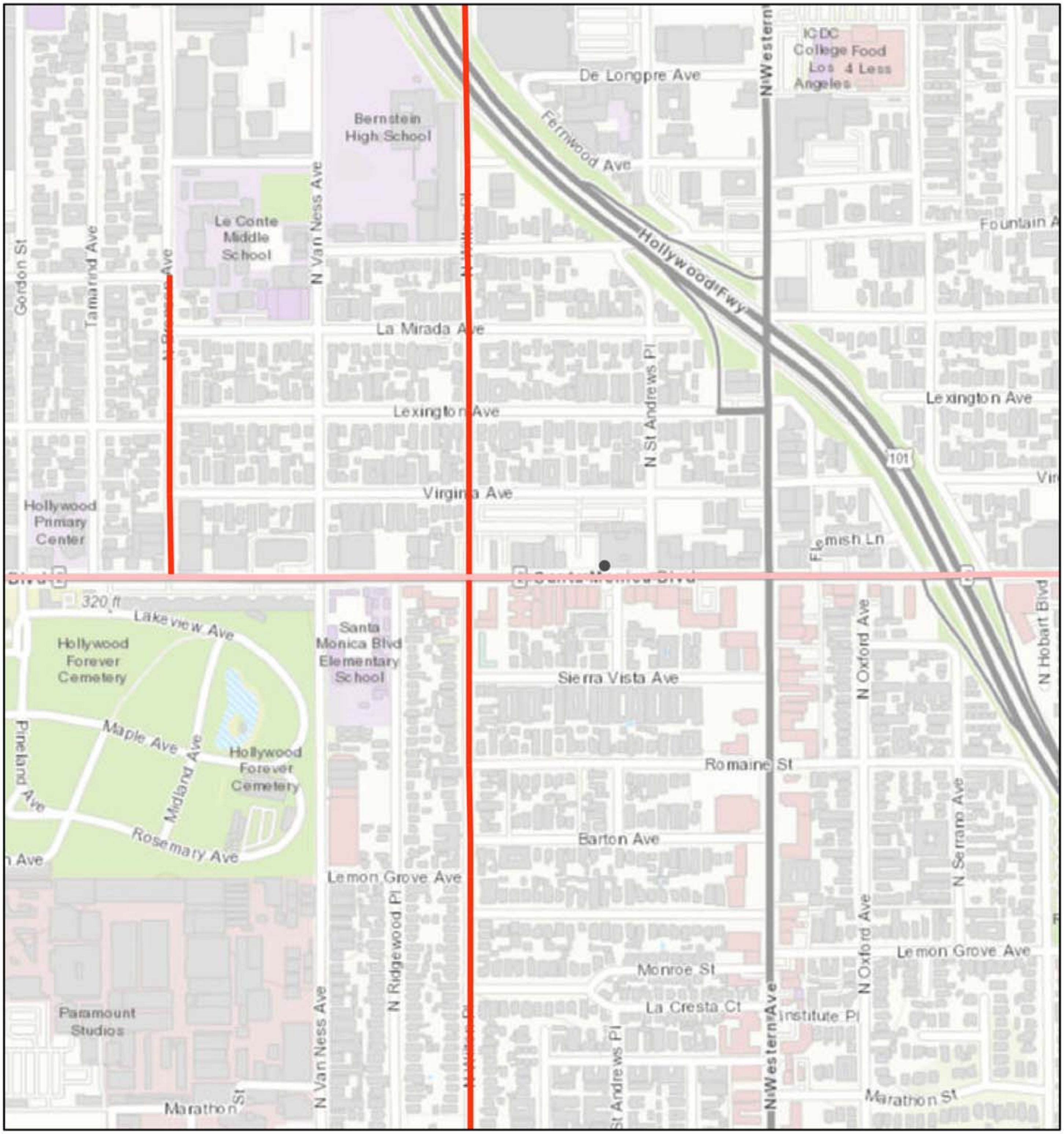
0 0.1 0.2 0.4 km

High Injury Network

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Bicycle Network



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1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

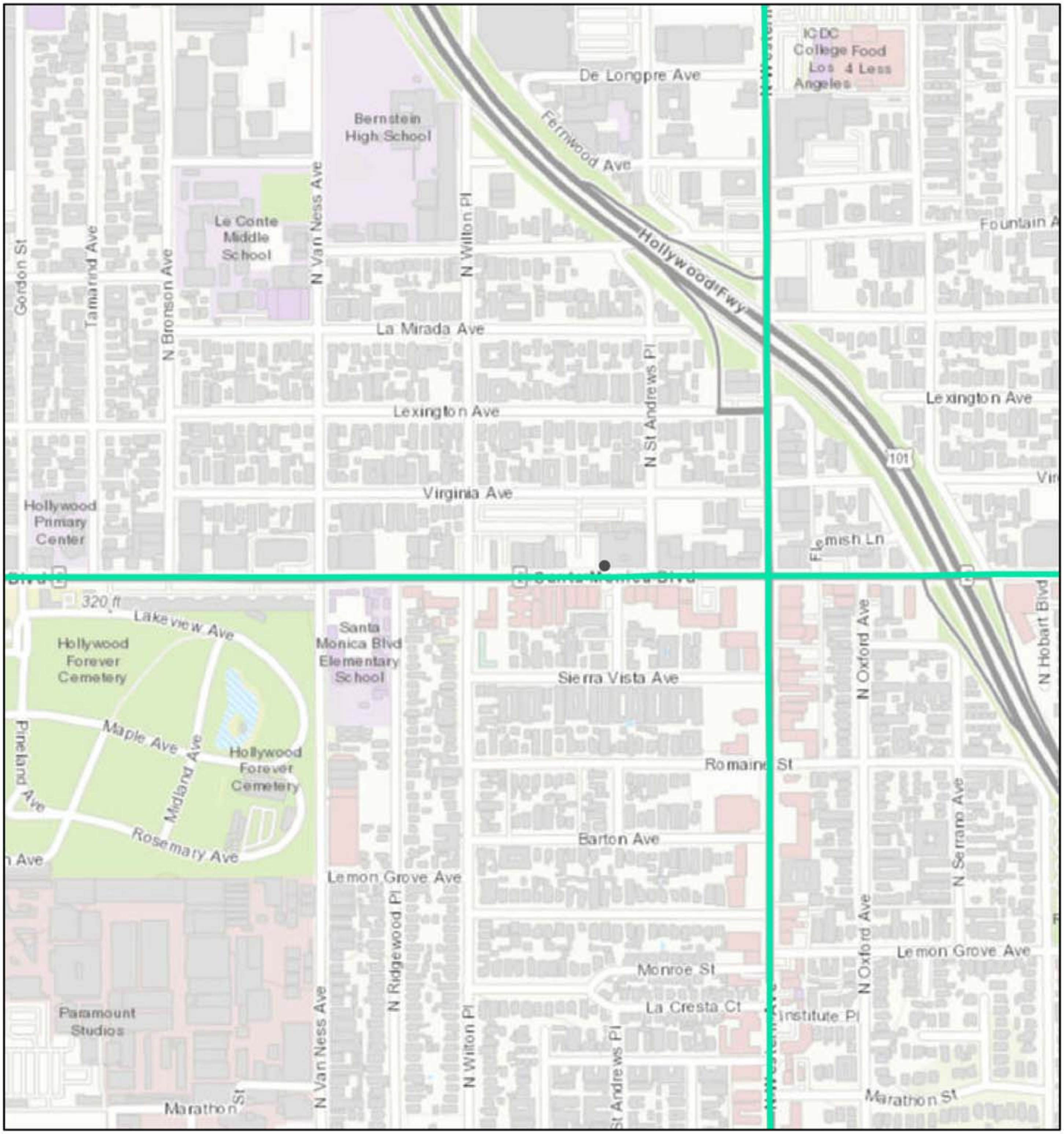
Bicycle Network

Tier 2 (BLN)

Tier 3 (BLN)

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Transit Enhanced Network



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Transit Enhanced Network (TEN)

1:9,028

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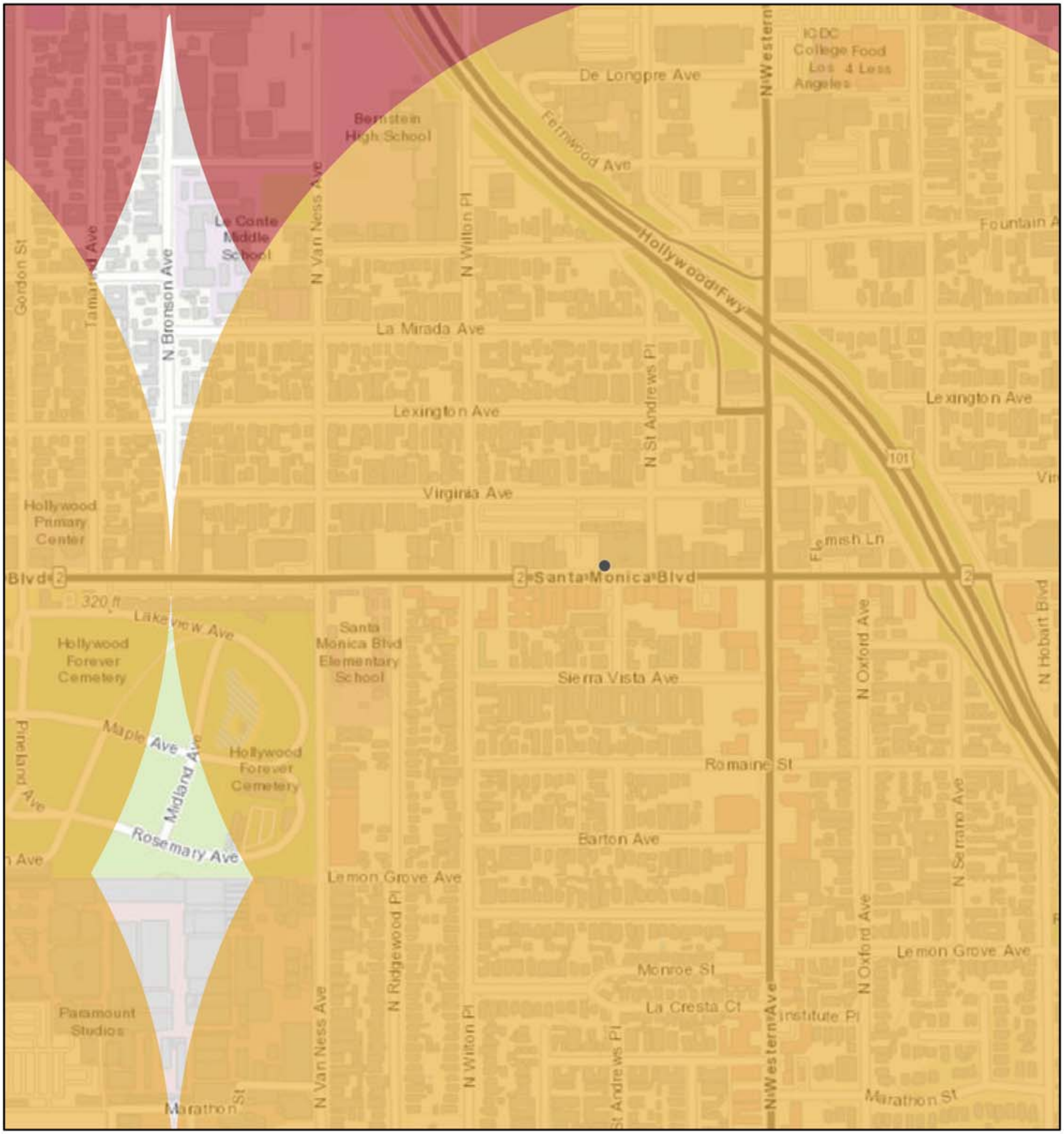
0 0.1 0.2 0.4 km

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Transit Priority Area



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1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

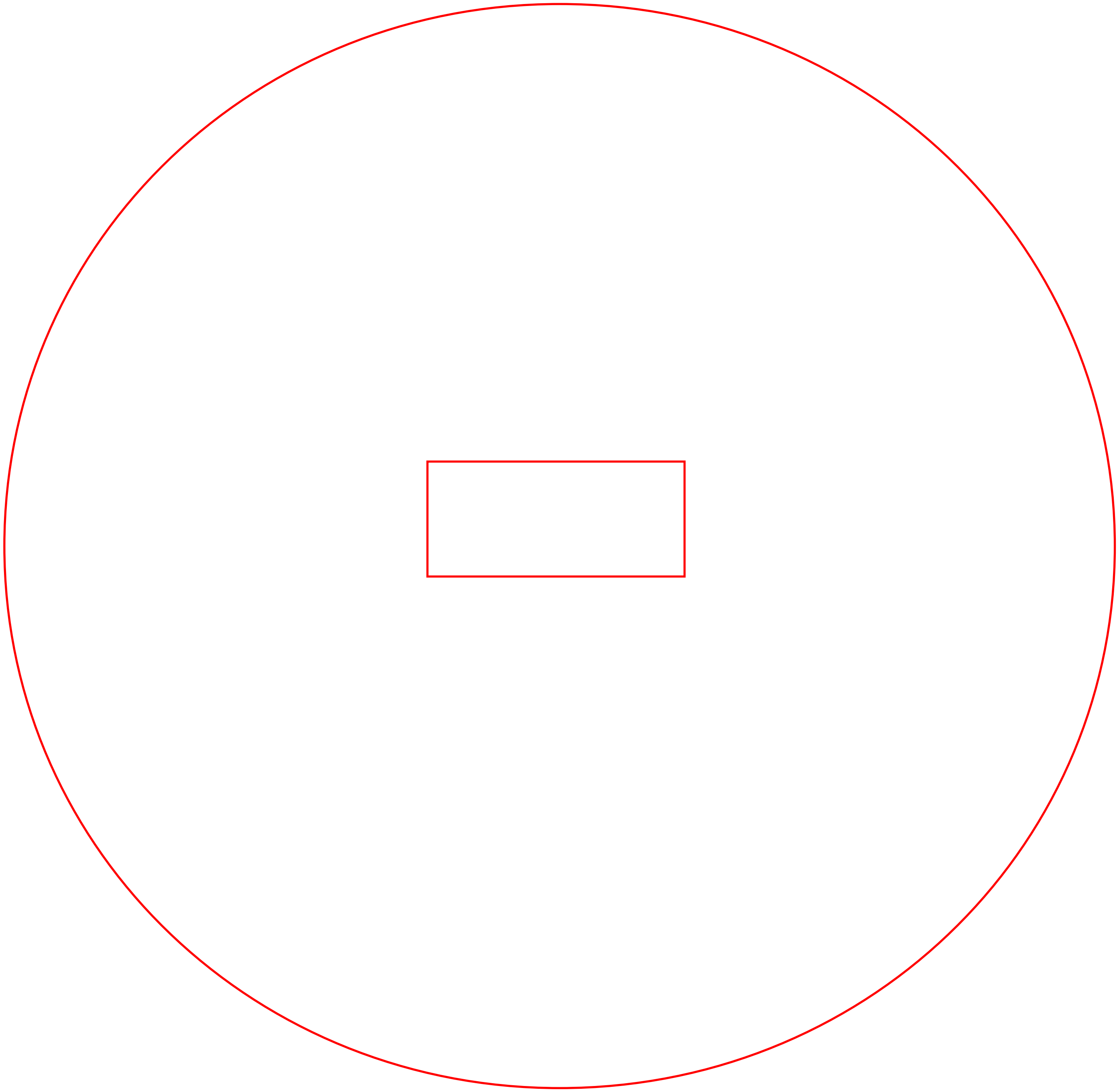
Transit Priority Area (TPA)

- Heavy Rail
- Major Bus Routes

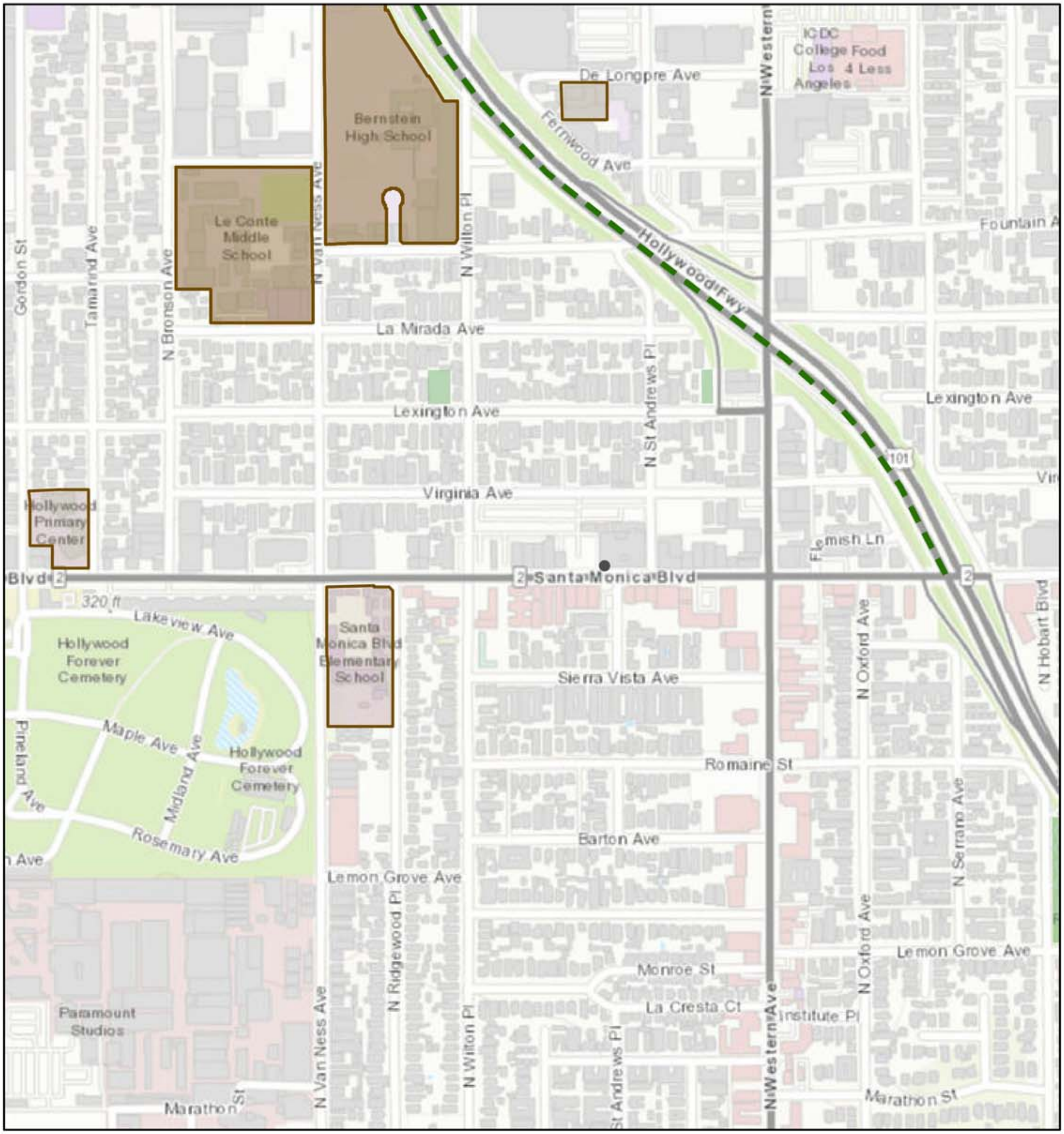
County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Pedestrian Destinations within 1320'



Library, Schools, Green Network, Parks



3/5/2021, 3:06:13 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Schools

Schools

Green Network

Bike Paths (Planned)

Parks

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

APPENDIX B

SCREENING CRITERIA

<table>
<tr><th colspan="2">TAG SCREENING CRITERIA</th></tr>
<tr><td colspan="2">If the answer is yes to any of the following threshold questions, further analysis will be required for that question to assess whether the proposed Project would negatively affect the transportation system for all travel modes including pedestrian, bicycle, or transit facilities.</td></tr>
<tr><td>Screening Criteria</td><td>Determination</td></tr>
<tr><td colspan="2">Threshold T-1 Conflicting with Plans, Programs, Ordinances, or Policies</td></tr>
<tr><td>Does the project require a discretionary action that requires the decision maker to find that the decision substantially conforms to the purpose, intent, and provisions of the General Plan?</td><td>Yes, Project is requesting Zone Change</td></tr>
<tr><td>Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?</td><td>Yes, the Project will inconsistent be with the Mobility Plan 2035. A waiver to dedicate and improve will be requested.</td></tr>
<tr><td>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.)?</td><td>Yes, according to the BOE PCRF & Mobility Element street dedication and improvements are shown below.
• Santa Monica – 12’ dedication & 7’ widening
• Wilton Pl. – 8’ dedication & 5’ widening
• Alley 4’ dedication
• Corner cut or 20’radius Santa Monica/Virginia, Santa Monica/St. Andrews, Wilton Pl/Virginia Av, & Wilton Pl/St Andrews
A WDI will be requested.</td></tr>
<tr><td colspan="2">Threshold T-2.1 Causing Substantial Vehicle Miles Traveled – Would the project conflict or would it be inconsistent with California Environmental Quality Act (CEQA) Guidelines section 15064.3 subdivision (b)(1)?</td></tr>
<tr><td>Would the Project generate a net increase of 250 or more daily vehicle trips?</td><td>Yes, using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 3938 more daily vehicle trips without any Transportation Demand Management (TDM) strategies. TDM strategies are not considered in the screening criteria.</td></tr>
</table>

Would the project generate a net increase in daily VMT?	**Yes,** using the LADOT VMT calculator, the Project would generate 27,585 daily VMT. TDM strategies are not considered in the screening criteria.
If the project includes retail uses, does the retail portion of the project exceed a net 50,000 square feet?	**No,** the Project will 12,378 sf of Restaurant.
Would the Project located within a one-half mile of a fixed-rail or fixed-guideway transit station replace an existing number of residential units with a smaller number of residential units?	**No,** the location of the Project is not within a half mile of a fixed rail or fixed guideway transit station or replacing residential.
Threshold T- 3.1: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use	
Is the Project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?	**Yes,** the Project will remove 7 driveways and construct 2 driveways each on Wilton Place, Virginia Avenue and St. Andrews
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,** according to the BOE PCRF & Mobility Element street dedication and improvements are shown below. • Santa Monica – 12' dedication & 7' widening • Wilton Pl. – 8' dedication & 5' widening • Alley 4' dedication • Corner cut or 20'radius Santa Monica/Virginia, Santa Monica/St. Andrews, Wilton Pl/Virginia Av, & Wilton Pl/St Andrews A WDI will be requested.
Pedestrian, Bicycle and Transit Access Assessment (Non-CEQA Transportation Analysis)	
Does the land use project involve a discretionary action that would be under review by the Department of City Planning?	**Yes,** Project is requesting Zone Change.
Does the land use project include the construction, 50 dwelling units or guest rooms or combination thereof or 50,000 square feet of non-residential	**Yes,** the Project will construct 510,621 square feet of commercial production studio, office and restaurant

space?	
Would the Project generate a net increase of 1,000 or more daily vehicle trips? Is the Project's frontage along an Avenue, Boulevard or Collector (as designated in the City's General Plan) 250 linear feet or more, or is the Project's frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan?	**No,** using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 3938 more daily vehicle trips without any Transportation Demand Management (TDM) strategies.). Adjacent to the site there is appx 742 feet along Santa Monica – Modified Avenue I & appx 289 feet along Wilton Place – Modified Avenue III
Project Access, Safety and Circulation Evaluation (Non-CEQA Transportation Analysis)	
Does the land use project involve a discretionary action that would be under review by the Department of Planning?	**Yes,** Project is requesting Zone Change
Would the Project generate a net increase of 250 or more daily vehicle trips?	**Yes,** using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 3938 more daily vehicle trips without any Transportation Demand Management (TDM) strategies

APPENDIX C

PLANS, PROGRAMS, ORDINANCE AND POLICY CONSISTENCY
Threshold Question T-1

Plans, Policies and Programs Consistency Worksheet

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

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

I. SCREENING CRITERIA FOR POLICY ANALYSIS

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

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

Yes

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

Yes

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

Yes, a
WDI will be requested

II. PLAN CONSISTENCY ANALYSIS

A. Mobility Plan 2035 Classification Standards for Dedications and Improvements

A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone?

No

A.2 Is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation?

Yes
a WDI will be requested

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

No, a WDI will be requested

A.4 Is the project applicant asking to waive from the dedication standards?

Yes

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

- Santa Monica – 12' dedication & 7' widening
- Wilton Pl. – 8' dedication & 5' widening
- Alley 4' dedication
- Corner cut or 20'radius Santa Monica/Virginia, Santa Monica/St. Andrews, Wilton Pl/Virginia Av, & Wilton Pl/St Andrews

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

No

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

B.1 Does the project physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

Yes

Examples of physical changes to the public right-of-way include:

- widening the roadway,
- narrowing the sidewalk,
- adding space for vehicle turn outs or loading areas,
- removing bicycle lanes, bike share stations, or bicycle parking
- modifying existing bus stop, transit shelter, or another street furniture
- paving, narrowing, shifting, or removing an existing parkway or tree well

Driveway Access

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

Project is following PL-1 Driveway Access

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

Project is following Design Guideline 2

Site Planning Best Practices:

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

Project is following Site Planning Best Practices

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

- Locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- Locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or
- The total number of new driveways exceeds 1 driveway per every 200 feet along on the Avenue or Boulevard frontage, or
- Locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- Locating new driveways on a collector or local street within 75 feet from the intersecting street, or
- Locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

Project is following Driveway Design Guidelines

Impact Analysis

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

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

No

B.2.2 Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?

No

C. Network Access

C. 1 Alley, Street and Stairway Access

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

No

C.2 New Cul-de-sacs

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

No

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

N/A

D. Parking Supply and Transportation Demand Management

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

No

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

No

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

Yes

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

Yes

D.5 Does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?

Yes

E. Consistency with Regional Plans

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

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

E.2 Does the Project or Plan result in a significant VMT impact? No

E.3 Does the Project result in a net increase in VMT? Yes

Table 2.1-2 Questions to Determine Project Applicability to Plans, Policies and Programs				
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 Highway and Collector Street Dedication and Improvement		No, the site is to be developed along Santa Monica Bl, a Modified Avenue II roadway, but the site is not zoned R3
2.	Is project site along any network identified in the City's Mobility Plan?	MP 2.3 through 2.7		Yes
		MP 2.3 Pedestrian Infrastructure (Map F)		Wilton Place & Santa Monica bl, along the Project frontage, are part of the PED Network. The Project has been designed to improve the landscaping and disrepair of pedestrian sidewalk providing a safe walkable sidewalk on this portion of the roadway.
		MP 2.4 Neighborhood Enhanced Network (Map C4)		No Project street frontages are part of the NEN. The Project is not proposing any changes along any streets that would prevent the City from installing additional features as part of the NEN, nor does the Project propose to modify any streets that would increase travel speeds on the neighborhood network.
		MP 2.5 Transit Network (Map B)		Santa Monica Bl is designated a TEN roadways. The Project does not propose to permanently remove or modify transit facilities in a manner that would negatively impact the reliability of existing transit service.
		MP 2.6 Bicycle Network (Map D2)		Yes, Santa Monica is a Tier 3 BEN.
		MP 2.7 Vehicle Network (Map E)		The Project street frontages are not part of the VEN
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 Widenings	**Yes,** according to the BOE PCRF & Mobility Element street dedication and improvements are shown below. • Santa Monica – 12' dedication & 7' widening • Wilton Pl. – 8' dedication & 5' widening • Alley 4' dedication • Corner cut or 20'radius Santa Monica/Virginia, Santa Monica/St. Andrews, Wilton Pl/Virginia Av, & Wilton Pl/St Andrews. A WDI will be requested.

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	Yes, Santa Monica Bl & Wilton Place
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 paving, narrowing, shifting, or removing an existing parkway?	MP - 5.5 Green Streets; Sustainability Plan		No
9.	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	No
10.	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		No. Existing alleys are proposed to be removed
11.	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
		ACCESS: DRIVEWAYS AND LOADING		
12.	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 Project will provide a new driveway off North Wilton Place (a modified Avenue III roadway). Driveways will also be provided off Saint Andrews Place and West Virginia Avenue (both local streets). The Project is consistent with Mobility Plan Programs PL.1; PK.10, CDG Policy 4.1.02

13.	If yes to 12, Is a non-arterial frontage or alley access available to serve the driveway or loading access needs?	MP - PL.1; MPP 321	Vision Zero	Yes, driveways will also be provided off Saint Andrews Place and West Virginia Avenue (both local streets) along with those on North Wilton Place. The Project is consistent with MP- PL.1 & MPP 321.
14.	Does project site include a corner lot? (avoid driveways too close to intersections)	CDG 4.1.01		Yes. No driveways will be close to the intersections per MP&P
15.	Does project propose driveway width more than City standard?	MPP Sec. 321	Vision Zero; Sustainability Plan, MP - PED, MP - BEN; CDG 4.1.04	No
16.	Does project propose more driveways than permitted by the City maximum standard?	MPP - Sec No. 321 Driveway Design	Vision Zero; Healthy LA	No
17.	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		On-site loading zones proposed.
18.	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		On site zones will be accessed from a driveway on Wilton Place and on St. Andrews Place
19.	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		Yes, vacating two alleys.

ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

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

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

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

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

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

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

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

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

Overland Traffic Consultants, Inc.

APPENDIX D

VMT ANALYSIS WORKSHEETS

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

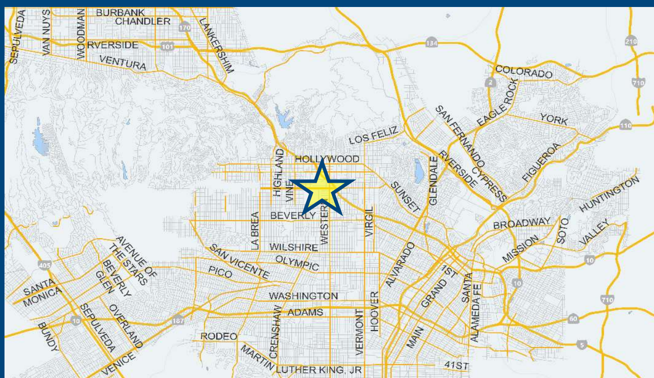
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: Echelon Studio

Scenario: WWW

Address: 5643 W SANTA MONICA BLVD, 90038



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit 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
Office | General Office	498.243	ksf
Retail | High-Turnover Sit-Down Restaurant	12.378	ksf
Office | General Office	498.243	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
0 Daily Vehicle Trips	3,938 Daily Vehicle Trips
0 Daily VMT	27,585 Daily VMT

Tier 1 Screening Criteria

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

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	3,938 Net Daily Trips
The net increase in daily VMT ≤ 0	27,585 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	12.378 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

8/22/2022

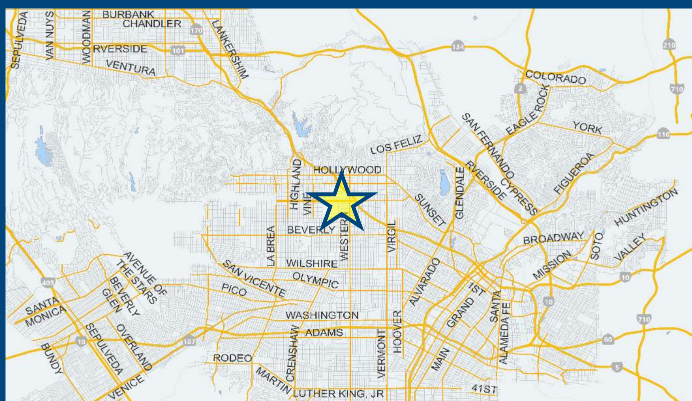
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: Echelon Studio

Scenario:

Address: 5643 W SANTA MONICA BLVD, 90038



Proposed Project Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	12.378	ksf
Office | General Office	498.243	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 — ☑ Proposed Prj ☐ Mitigation
- 1012 city code parking provision for the project site
- 981 actual parking provision for the project site

Unbundle Parking — ☐ Proposed Prj ☐ Mitigation
- monthly parking cost (dollar) for the project site

Parking Cash-Out — ☐ Proposed Prj ☐ Mitigation
- percent of employees eligible

Price Workplace Parking — ☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- percent of employees subject to priced parking

Residential Area Parking Permits — ☐ Proposed Prj ☐ Mitigation
- 200 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
3,830 Daily Vehicle Trips	**3,830** Daily Vehicle Trips
26,824 Daily VMT	**26,824** Daily VMT
0.0 Household VMT per Capita	**0.0** Household VMT per Capita
6.6 Work VMT per Employee	**6.6** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

Project Information

Land Use Type		Value	Units
Housing	Single Family	0	DU
	Multi Family	0	DU
	Townhouse	0	DU
	Hotel	0	Rooms
	Motel	0	Rooms
Affordable Housing	Family	0	DU
	Senior	0	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
Retail	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
	High-Turnover Sit-Down Restaurant	12.378	ksf
	Fast-Food Restaurant	0.000	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement	0.000	ksf
	Free-Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	498.243	ksf
	Medical Office	0.000	ksf
Industrial	Light Industrial	0.000	ksf
	Manufacturing	0.000	ksf
	Warehousing/Self-Storage	0.000	ksf
School	University	0	Students
	High School	0	Students
	Middle School	0	Students
	Elementary	0	Students
	Private School (K-12)	0	Students
Other		0	Trips

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 22, 2022
Project Name: Echelon Studio
Project Scenario:
Project Address: 5643 W SANTA MONICA BLVD, 90038

Version 1.3

Analysis Results

Total Employees: 2,042
Total Population: 0

Proposed Project		*With Mitigation*	
3,830	**Daily Vehicle Trips**	**3,830**	**Daily Vehicle Trips**
26,824	**Daily VMT**	**26,824**	**Daily VMT**
0	**Household VMT per Capita**	**0**	**Household VMT per Capita**
6.6	**Work VMT per Employee**	**6.6**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

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

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

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	1012	1012
		Actual parking provision (spaces)	981	981
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

(cont. on following page)

TDM Strategy Inputs, Cont.

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

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

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

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*
MAX. TDM EFFECT	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*

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

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

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

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	7.9	0	0
Home Based Other Production	0	0.0%	0	5.1	0	0
Non-Home Based Other Production	757	-4.2%	725	7.0	5,299	5,075
Home-Based Work Attraction	2,411	-32.0%	1,639	8.4	20,252	13,768
Home-Based Other Attraction	1,581	-46.3%	849	5.6	8,854	4,754
Non-Home Based Other Attraction	757	-4.2%	725	5.5	4,164	3,988

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	-2.8%	0	0	-2.8%	0	0
Home Based Other Production	-2.8%	0	0	-2.8%	0	0
Non-Home Based Other Production	-2.8%	705	4,935	-2.8%	705	4,935
Home-Based Work Attraction	-2.8%	1,594	13,388	-2.8%	1,594	13,388
Home-Based Other Attraction	-2.8%	826	4,623	-2.8%	826	4,623
Non-Home Based Other Attraction	-2.8%	705	3,878	-2.8%	705	3,878

MXD VMT Methodology Per Capita & Per Employee

Total Population: 0
Total Employees: 2,042
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**0**	**0**
Total Home Based Work Attraction VMT	**13,388**	**13,388**
Total Home Based VMT Per Capita	**0.0**	**0.0**
Total Work Based VMT Per Employee	**6.6**	**6.6**

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: ______________________________

Title: ______________________________

Company: ______________________________

Address: ______________________________

Phone: ______________________________

Email Address: ______________________________

Date: ______________________________

APPENDIX E

COMMUNITY PLAN LAND USE MAPS

Hollywood Community Plan

General Plan Land Use Map

A Part of the General Plan of the City of Los Angeles

Land Use[18]	Corresponding Zones[1]
Low Density[17]	
Minimum	RE40
Very Low II	RE15,RE11
Low I	RE9
Low II	RS,R1
Multiple Family[17]	
Low Medium I[3]	R2,RD5,RD4,RD3
Low Medium II[3]	RD2,RD1.5
Medium[4]	R3
High Medium[5]	[Q]R4
High	R4,[Q]R5[13]

Land Use[18]	Corresponding Zones[1]
Commercial[17]	
Limited Commercial[6]	CR,C1,C1.5,P, RAS3,RAS4
Highway Oriented Commercial[11,12,21]	C1,C2,P, RAS3,RAS4
General Commercial	C1,C2,P, RAS3,RAS4
Neighborhood Office Commercial[7,11]	C1,C2,C4,P, RAS3,RAS4
Community Commercial[8]	CR,C2,C4,P,PB, RAS3,RAS4
Regional Center Commercial[9]	C2,C4,P,PB, RAS3,RAS4
Industrial[17]	
Commercial Manufacturing[11]	CM,P
Limited Manufacturing	MR1,M1,P,PB
Open Space;Public Facilities[10,19,20]	
Open Space	OS,A1
Public Facilities	PF

Service Systems

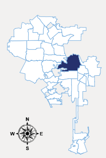
- Public Elementary School
- Public Junior High
- Public Senior High
- Junior College
- E Private Elementary School
- SH Private Senior High
- SF Private Special School
- Community Park
- Neighborhood Park
- Regional Park
- Public Golf Course
- Branch Administration Center
- Fire Station
- Police Station
- Community Library
- Regional Library
- Cultural/Historical Site
- Maintenance Yard
- Power Distribution Station
- HW House of Worship
- Health Center/Hospital
- DWP DWP Property

Circulation

- Freeway
- Scenic Freeway
- Major Highway II
- Scenic Major Highway II
- Scenic Divided Major Highway II
- Secondary Highway
- Scenic Secondary Highway
- Scenic Divided Secondary Highway
- Scenic Arterial Mountain
- Scenic Parkway
- Collector Street
- Local Street
- Country Road
- Park Road
- Private Street

Other Line Symbols

- Community Boundary
- DWP Lines
- Historic Preservation
- Redevelopment Project Area
- Reservoir Line



Feet

0 2,000 4,000

Sources: Los Angeles Department of City Planning

FOOTNOTES:

1. Only those zones indicated in the table are recommended in Hollywood.
2. Gross acre includes one-half of abutting street.
3. Height district 1XL.
4. Refer to zoning maps; may be limited to Height District 1XL or to less than maximum R3 zoning density.
5. Height District 1VL; maximum density limited to one dwelling unit per six hundred (600) square feet of lot.
6. For properties with less than one hundred (100) feet of lot depth, the recommended FAR is 1:1.
7. For properties limited to the 1XL and 1VL Height Districts, the recommended FAR is 1.5:1. This Plan designation emphasizes pedestrian-oriented use and design.
8. This designation is limited to the East Hollywood Center Study Area. FAR up to 3:1 may be permitted through application of the CSA 1 Height District.
9. This designation is limited to the Hollywood Redevelopment Project Area. Development intensity is limited to 4.5:1 FAR with a maximum of 6:1 FAR possible through a Transfer of Development Rights procedure and/or City Planning Commission approval.
10. When the use of property designated as "Public Land" or "Open Space" is to be discontinued, the proposed new use must be approved by the City Planning Commission through the procedure established by LAMC 12.24.1.
11. A maximum FAR of 3:1 may be permitted on sites located within designated centers with the application of the CSA 1 Height District.
12. A floor area ratio (FAR) of 1.5:1 shall be permitted on properties designated Highway Oriented commerce located within the Hollywood Redevelopment Project area.
13. The Plan contemplates that certain commercial uses may be allowed on properties designated as High density through LAMC 12.24.C5(j). Commercial uses should be limited to those permitted in the C1 zone and the FAR of such uses should not exceed 1:1. Whenever possible commercial uses should be located at street level, with residential uses on the upper floors.
14. Development of these properties shall be limited to a maximum floor area ratio of 1.9:1.
15. Development of these properties shall be limited to a maximum floor area ratio of 1:1.
16. Hotels may be permitted on these properties subject to approval pursuant to LAMC 12.24C.1(j).
17. Existing mobile home parks, the existing uses and the RMP Zone are consistent with the Plan, and the RMP zone is a corresponding zone for every land use designation in the Plan, including residential, commercial, and industrial Plan designations. The retention or expansion of existing mobile home parks in the RMP Zone encourages the provision of affordable housing and serves as a viable resource to supplement the City's housing stock. New mobile home parks shall be consistent with the Plan when developed in the RMP Zone and in a Residential or Commercial Plan designation. The RMP zone is a corresponding zone for every residential and commercial land use designation in the Plan. New mobile home parks should be established such that their location is: 1) desirable to public convenience and welfare; 2) in harmony with the various elements and objectives of the General Plan; 3) proper in relation to adjacent uses or development; and 4) not materially detrimental to the character of development in the immediate neighborhood.
18. Each Plan category permits all indicated corresponding zones as well as those zones referenced in the Los Angeles Municipal Code (LAMC) as permitted by such zones unless further restricted by adopted Specific Plans, specific conditions and/or limitations of project approval, plan footnotes or other Plan map or text notations.
    Zone established in the LAMC subsequent to the adoption of the Plan shall not be deemed as corresponding to any particular Plan category unless the Plan is amended to so indicate.
    It is the intent of the Plan that the entitlements granted shall be one of the zone designations within the corresponding zones shown on the Plan, unless accompanied by a concurrent Plan Amendment.
19. The Public Facility (PF) planning land use designation is premised on the ownership and use of the property by a government agency. The designation of the PF Zone as a corresponding zone is based on the same premise. The Plan also intends that when a board or governing body of a government agency officially determines that a property zone PF is surplus, and no other public agency has indicated an intent to acquire, and the City is notified that the agency intends to offer the property for sale to a private purchaser, then the property may be rezoned to the zone(s) most consistent within 500 feet of the property boundary and still be considered consistent with the adopted Plan.
20. Local streets and freeways are shown for reference only.
21. Floor area ratio (FAR) of 0.5:1. A maximum FAR of 1.5:1 for commercial only buildings and a FAR of up to 3:1 for mixed use commercial / residential, or residential only projects in a unified development shall be permitted in the Highway Oriented Commercial designated properties on the north side of Sunset Boulevard between Bronson Avenue and Van Ness Avenue for:
    (1) a commercial/residential mixed-use project having at least 50 percent of the street-level linear building frontage devoted to commercial land use(s) in order to promote street level pedestrian activity, and/or
    (2) a project that incorporates affordable housing units;
    Provided that the aforementioned projects either: (a) utilize the RAS3 or RAS4 Zones or, (b) a conditional use permit is granted pursuant to Section 12.24.W.19 of the Municipal Code to allow FAR averaging of up to 3.0:1 over the entire project site for a unified mixed-use development.
22. Height District 2D with a maximum floor area ratio (FAR) of 3.84:1 for the project described in CPC-2006-4392 the area bounded by Virginia Avenue on the north, St. Andrews Place on the east, Santa Monica Boulevard on the south, and Wilton Place on the west.

* Bikeways are shown on the Citywide Bikeways System maps contained in the City's Bicycle Plan, a part of the Transportation Element of the General Plan, which was adopted by the City Council on August 6,1996.

Notes:

A. The text of the Community Plan can be accessed on the City of Los Angeles' Web Page (cityplanning.lacity.org).

B. Other Special Area Maps may not be included on this document.

C. Parcel level information (plan designation and zoning) can be found on the City of Los Angeles Department of City Planning Zone Information & Map Access System (ZIMAS) web site (zimas.lacity.org).

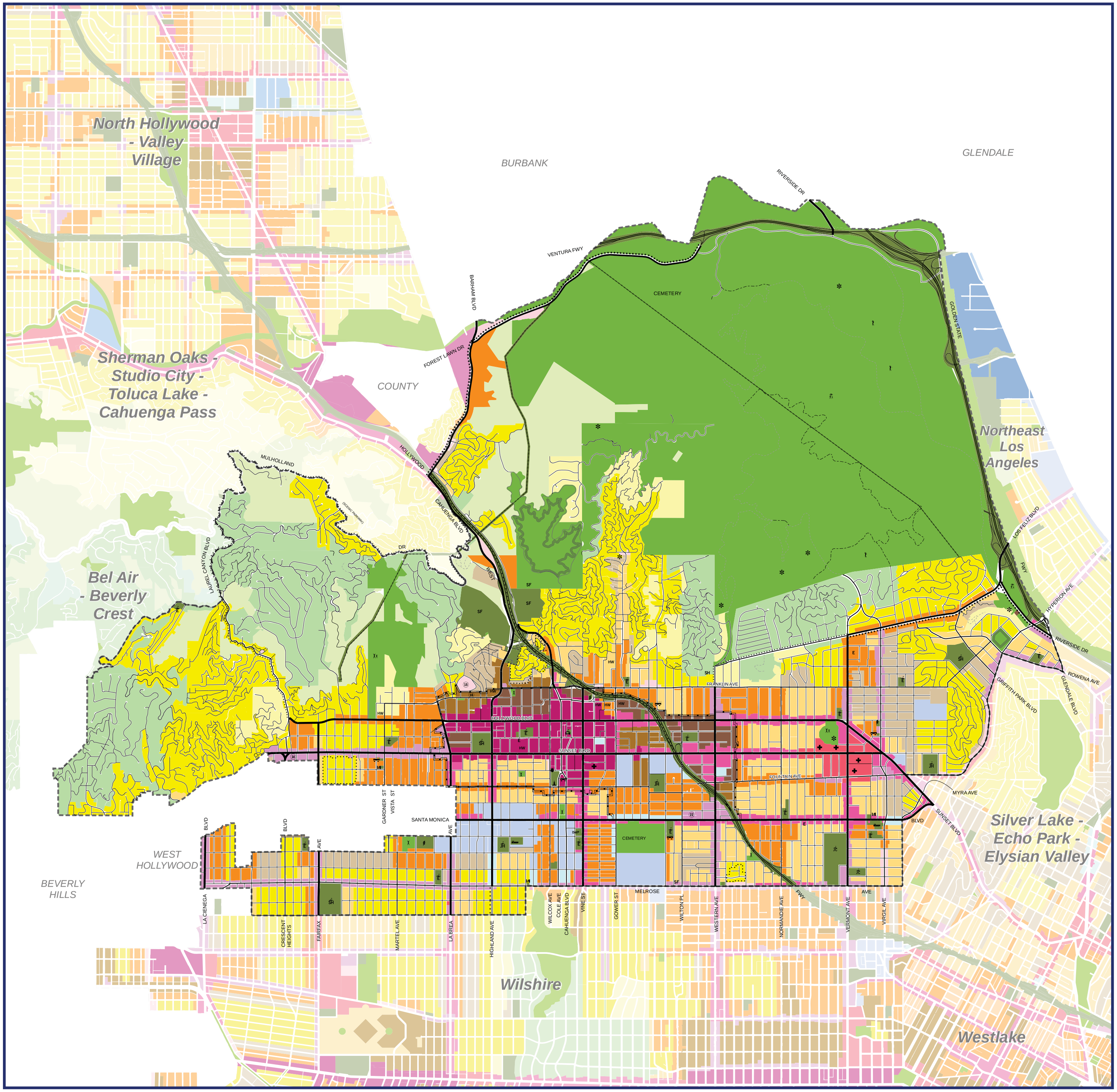
Eric Garcetti
Mayor

City of Los Angeles
Department of
City Planning

Geographic
Information
Systems

Revised: This reflects actions from Council File 12-0303-S4 Adopted 04/02/2014

Los Angeles Department of City Planning - Systems , GIS and Graphics Division Michael LoGrande - Director April, 2014

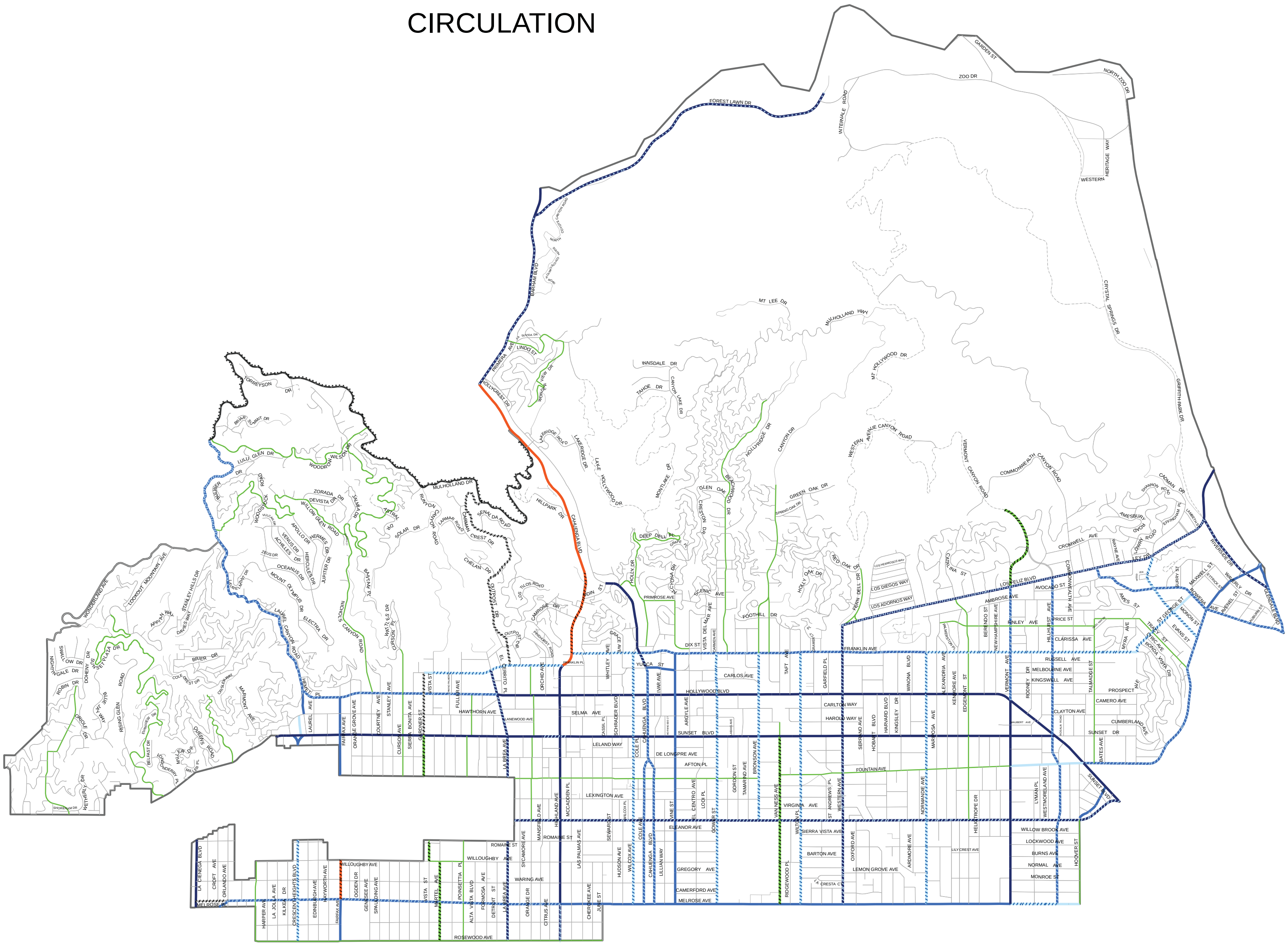


APPENDIX F

ROADWAY DESIGNATION MAP, STREET STANDARDS
&
INTERSECTION AERIALS

HOLLYWOOD

CIRCULATION



Legend

- Boulevard II
- Boulevard II Modified
- Avenue I
- Avenue I Modified
- Avenue I Modified Divided Scenic
- Avenue I Modified Scenic
- Avenue I Scenic
- Avenue II
- Avenue II Divided Scenic
- Avenue II Modified
- Avenue II Modified Scenic
- Avenue II Scenic
- Avenue III
- Avenue III Modified
- Collector
- Collector Modified
- Local
- Local Modified
- Scenic Highway
- Private Street
- Community Plan Area Boundary

N

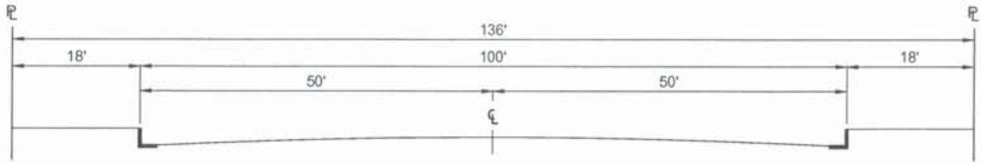
W E

S

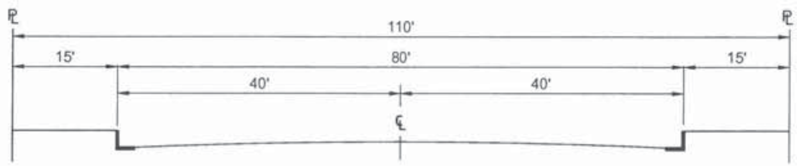
Date: 2/2/2017

DEPARTMENT OF CITY PLANNING
INFORMATION TECHNOLOGIES DIVISION

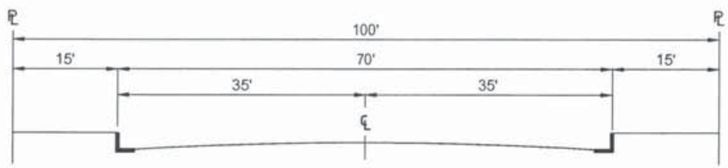
ARTERIAL STREETS



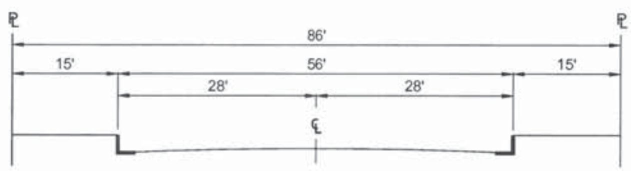
BOULEVARD I (MAJOR HIGHWAY CLASS I)



BOULEVARD II (MAJOR HIGHWAY CLASS II)



AVENUE I (SECONDARY HIGHWAY)



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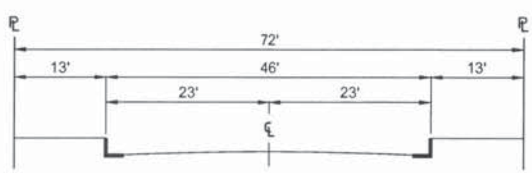


AVENUE III (SECONDARY HIGHWAY)

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

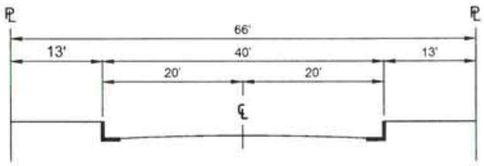
BUREAU OF ENGINEERING | DEPARTMENT OF PUBLIC WORKS | CITY OF LOS ANGELES

--- DRAFT --- STANDARD STREET DIMENSIONS

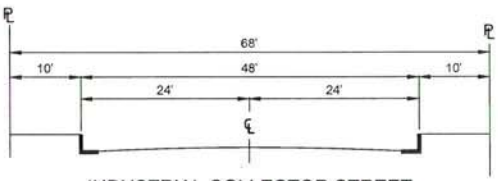
STANDARD PLAN
S-470-1

PREPARED	SUBMITTED	APPROVED		SUPERSEDES	REFERENCES
HAMID MADANI, P.E. BUREAU OF ENGINEERING CHECKED RAFFI MASSABKI, P.E. BUREAU OF ENGINEERING	SAMARA ALI-AHMAD, P.E. DATE ENGINEER OF DESIGN BUREAU OF ENGINEERING KENNETH REDD, P.E. DATE DEPUTY CITY ENGINEER	GARY LEE MOORE, P.E., ENV. SP. DATE CITY ENGINEER DEPARTMENT OF TRANSPORTATION DATE GENERAL MANAGER DIRECTOR OF PLANNING DATE	REGISTERED PROFESSIONAL ENGINEER GARY LEE MOORE No. C-49446 Exp. CIVIL STATE OF CALIFORNIA	D-22549 S-470-0 VAULT INDEX NUMBER: SHEET 1 OF 4 SHEETS	

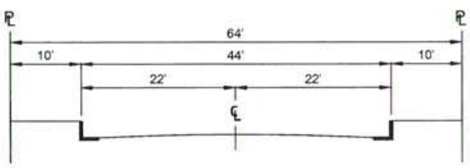
NON-ARTERIAL STREETS



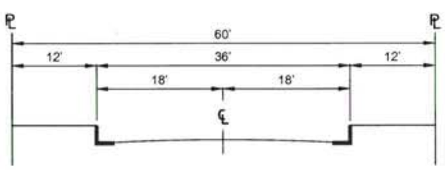
COLLECTOR STREET



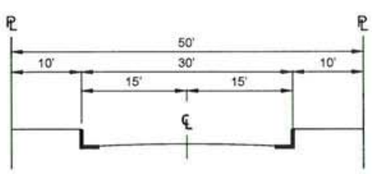
INDUSTRIAL COLLECTOR STREET



INDUSTRIAL LOCAL STREET

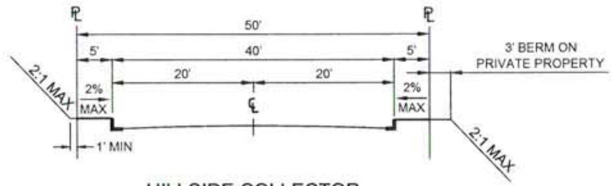


LOCAL STREET - STANDARD

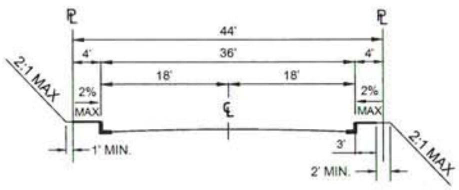


LOCAL STREET - LIMITED

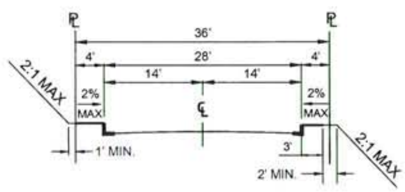
HILLSIDE STREETS



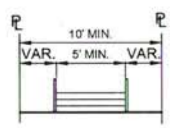
HILLSIDE COLLECTOR



HILLSIDE LOCAL



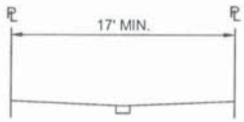
HILLSIDE LIMITED STANDARD



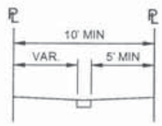
PUBLIC STAIRWAY

CONSTRUCTED IN ACCORDANCE WITH
BUREAU OF ENGINEERING STANDARD PLANS

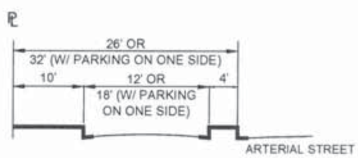
OTHER PUBLIC RIGHTS-OF-WAY



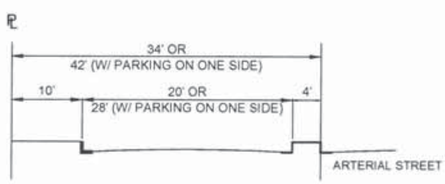
SHARED STREET



PEDESTRIAN WALKWAY

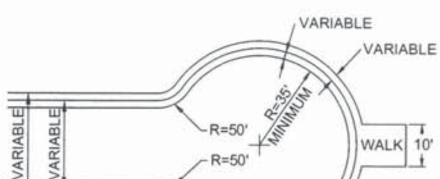


ONE-WAY SERVICE ROAD



BI-DIRECTIONAL SERVICE ROAD

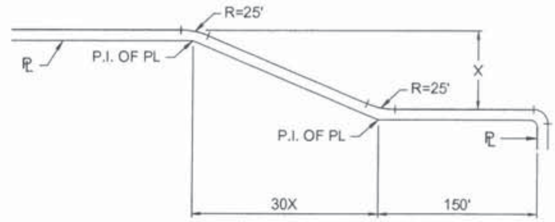
CUL-DE-SAC



MAY BE UNSYMMETRICAL
(PLAN VIEW)

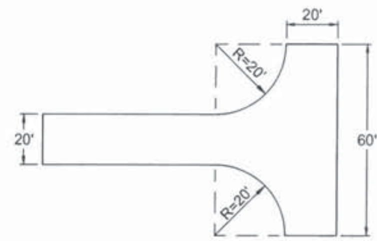
NOTE: FOR FIRE TRUCK CLEARANCE, NO OBSTRUCTION TALLER THAN 6" SHALL BE PERMITTED WITHIN 3FT. OF THE CURB. ON-STREET PARKING SHALL BE PROHIBITED.

TRANSITIONAL EXTENSIONS

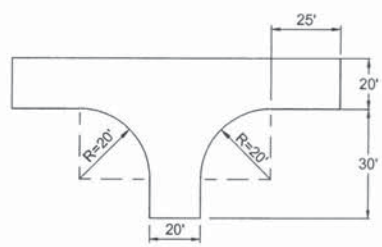


STANDARD FLARE SECTION
(PLAN VIEW)

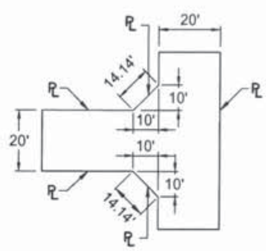
ALLEYS



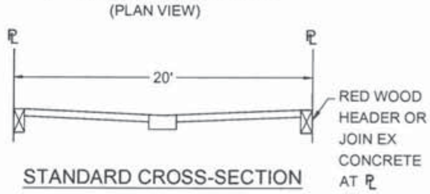
STANDARD TURNING AREA
(PLAN VIEW)



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 RADII (INSTEAD OF THE STANDARD 35' CURB RADII) 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.


LA MIRANDA AV & WILTON PL
Google Earth
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SANTA MONICA BL & WILTON PL

SANTA MONICA BL & SAINT ANDREWS PL

LEXINGTON AV & SB 101-FWY OFF RAMP

LEXINGTON AV & WESTERN AV

SANTA MONICA BL & WESTERN AV

APPENDIX G

TRANSIT ROUTES


Hollywood/ Highland
Hollywood/ Vine
Hollywood/ Western
Vermont/ Sunset
Vermont/ Santa Monica
Vermont/ Beverly
Wilshire/ Vermont
Wilshire/ Western
HOLLYWOOD
SUNSET
SANTA MONICA
Fountain
MELROSE
Melrose
BEVERLY
3RD
6TH
FAIRFAX
LA BREA
Highland
VINE
WESTERN
NORMANDIE
VERMONT
HOOVER
RAMPART
ALVARADO
Talmadge
Farmers Market
The Grove
LACMA
Hauser
6th
HANCOCK PARK
FAIRFAX
WH
FA
HL
WK
217
218
2
4
10
14
16
20
720
180
182
96
204
754
206
207
210
212
222
224
18
603
422 423
101

Monday through Friday — B & D Lines (Red & Purple)

Effective Feb 20 2022

Eastbound *Al Este* (Approximate Times/*Tiempos Aproximados*)

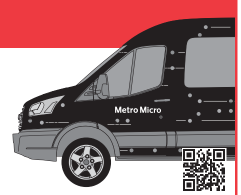
NORTH HOLLYWOOD | UNIVERSAL CITY | HOLLYWOOD | LOS ANGELES | DOWNTOWN LA

B Line (Red) Stations / D Line (Purple) Stations

North Hollywood	Universal/Studio City	Hollywood/Highland	Hollywood/Vine	Hollywood/Western	Vermont/Sunset	Vermont/Santa Monica	Vermont/Beverly	Wilshire/Western	Wilshire/Normandie	Wilshire/Vermont	Westlake/MacArthur Park	7th St/Metro Center	Pershing Square	Civic Center/Grand Park	Union Station
—	—	—	—	—	—	—	—	4:41A	4:43A	4:45A	4:47A	4:49A	4:50A	4:51A	4:54A
4:32A	4:36A	4:40A	4:42A	4:44A	4:46A	4:47A	4:49A	—	—	4:52	4:54	4:56	4:57	4:58	5:01
—	—	—	—	—	—	—	—	4:58	5:00	5:02	5:04	5:06	5:07	5:08	5:11
4:50	4:54	4:58	5:00	5:02	5:04	5:05	5:07	—	—	5:10	5:12	5:14	5:15	5:16	5:19
—	—	—	—	—	—	—	—	5:15	5:17	5:19	5:21	5:23	5:24	5:25	5:28
5:08	5:12	5:16	5:18	5:20	5:22	5:23	5:25	—	—	5:28	5:30	5:32	5:33	5:34	5:37
—	—	—	—	—	—	—	—	5:33	5:35	5:37	5:39	5:41	5:42	5:43	5:46
5:26	5:30	5:34	5:36	5:38	5:40	5:41	5:43	—	—	5:46	5:48	5:50	5:51	5:52	5:55
—	—	—	—	—	—	—	—	5:50	5:52	5:54	5:56	5:58	5:59	6:00	6:03
5:42	5:46	5:50	5:52	5:54	5:56	5:57	5:59	—	—	6:02	6:04	6:06	6:07	6:08	6:11
—	—	—	—	—	—	—	—	6:05	6:07	6:09	6:11	6:13	6:14	6:15	6:18
5:57	6:01	6:05	6:07	6:09	6:11	6:12	6:14	—	—	6:17	6:19	6:21	6:22	6:23	6:26
—	—	—	—	—	—	—	—	6:20	6:22	6:24	6:26	6:28	6:29	6:30	6:33
6:12	6:16	6:20	6:22	6:24	6:26	6:27	6:29	—	—	6:32	6:34	6:36	6:37	6:38	6:41
—	—	—	—	—	—	—	—	6:35	6:37	6:39	6:41	6:43	6:44	6:45	6:48
6:27	6:31	6:35	6:37	6:39	6:41	6:42	6:44	—	—	6:47	6:49	6:51	6:52	6:53	6:56
—	—	—	—	—	—	—	—	6:50	6:52	6:54	6:56	6:58	6:59	7:00	7:03
6:42	6:46	6:50	6:52	6:54	6:56	6:57	6:59	—	—	7:02	7:04	7:06	7:07	7:08	7:11
—	—	—	—	—	—	—	—	7:05	7:07	7:09	7:11	7:13	7:14	7:15	7:18
6:57	7:01	7:05	7:07	7:09	7:11	7:12	7:14	—	—	7:17	7:19	7:21	7:22	7:23	7:26
—	—	—	—	—	—	—	—	7:20	7:22	7:24	7:26	7:28	7:29	7:30	7:33
7:12	7:16	7:20	7:22	7:24	7:26	7:27	7:29	—	—	7:32	7:34	7:36	7:37	7:38	7:41
—	—	—	—	—	—	—	—	7:35	7:37	7:39	7:41	7:43	7:44	7:45	7:48
7:27	7:31	7:35	7:37	7:39	7:41	7:42	7:44	—	—	7:47	7:49	7:51	7:52	7:53	7:56
—	—	—	—	—	—	—	—	7:50	7:52	7:54	7:56	7:58	7:59	8:00	8:03
7:42	7:46	7:50	7:52	7:54	7:56	7:57	7:59	—	—	8:02	8:04	8:06	8:07	8:08	8:11
—	—	—	—	—	—	—	—	8:05	8:07	8:09	8:11	8:13	8:14	8:15	8:18
7:57	8:01	8:05	8:07	8:09	8:11	8:12	8:14	—	—	8:17	8:19	8:21	8:22	8:23	8:26
—	—	—	—	—	—	—	—	8:20	8:22	8:24	8:26	8:28	8:29	8:30	8:33
8:12	8:16	8:20	8:22	8:24	8:26	8:27	8:29	—	—	8:32	8:34	8:36	8:37	8:38	8:41
—	—	—	—	—	—	—	—	8:35	8:37	8:39	8:41	8:43	8:44	8:45	8:48
8:27	8:31	8:35	8:37	8:39	8:41	8:42	8:44	—	—	8:47	8:49	8:51	8:52	8:53	8:56
—	—	—	—	—	—	—	—	8:50	8:52	8:54	8:56	8:58	8:59	9:00	9:03
8:42	8:46	8:50	8:52	8:54	8:56	8:57	8:59	—	—	9:02	9:04	9:06	9:07	9:08	9:11
—	—	—	—	—	—	—	—	9:05	9:07	9:09	9:11	9:13	9:14	9:15	9:18
8:57	9:01	9:05	9:07	9:09	9:11	9:12	9:14	—	—	9:17	9:19	9:21	9:22	9:23	9:26
—	—	—	—	—	—	—	—	9:20	9:22	9:24	9:26	9:28	9:29	9:30	9:33
9:12	9:16	9:20	9:22	9:24	9:26	9:27	9:29	—	—	9:32	9:34	9:36	9:37	9:38	9:41
—	—	—	—	—	—	—	—	9:35	9:37	9:39	9:41	9:43	9:44	9:45	9:48
9:27	9:31	9:35	9:37	9:39	9:41	9:42	9:44	—	—	9:47	9:49	9:51	9:52	9:53	9:56
Trains Scheduled Every: 15 minutes								15 minutes		7.5 minutes					
—	—	—	—	—	—	—	—	6:05P	6:07P	6:09P	6:11P	6:13P	6:14P	6:15P	6:18P
5:57P	6:01P	6:05P	6:07P	6:09P	6:11P	6:12P	6:14P	—	—	6:17	6:19	6:21	6:22	6:23	6:26
—	—	—	—	—	—	—	—	6:20	6:22	6:24	6:26	6:28	6:29	6:30	6:33
6:12	6:16	6:20	6:22	6:24	6:26	6:27	6:29	—	—	6:32	6:34	6:36	6:37	6:38	6:41
—	—	—	—	—	—	—	—	6:35	6:37	6:39	6:41	6:43	6:44	6:45	6:48
6:27	6:31	6:35	6:37	6:39	6:41	6:42	6:44	—	—	6:47	6:49	6:51	6:52	6:53	6:56
—	—	—	—	—	—	—	—	6:50	6:52	6:54	6:56	6:58	6:59	7:00	7:03
6:42	6:46	6:50	6:52	6:54	6:56	6:57	6:59	—	—	7:02	7:04	7:06	7:07	7:08	7:11
—	—	—	—	—	—	—	—	7:05	7:07	7:09	7:11	7:13	7:14	7:15	7:18
6:57	7:01	7:05	7:07	7:09	7:11	7:12	7:14	—	—	7:17	7:19	7:21	7:22	7:23	7:26
—	—	—	—	—	—	—	—	7:20	7:22	7:24	7:26	7:28	7:29	7:30	7:33
7:12	7:16	7:20	7:22	7:24	7:26	7:27	7:29	—	—	7:32	7:34	7:36	7:37	7:38	7:41
—	—	—	—	—	—	—	—	7:35	7:37	7:39	7:41	7:43	7:44	7:45	7:48
7:27	7:31	7:35	7:37	7:39	7:41	7:42	7:44	—	—	7:47	7:49	7:51	7:52	7:53	7:56
—	—	—	—	—	—	—	—	7:50	7:52	7:54	7:56	7:58	7:59	8:00	8:03
7:43	7:47	7:51	7:53	7:55	7:57	7:58	8:00	—	—	8:03	8:05	8:07	8:08	8:09	8:12
—	—	—	—	—	—	—	—	8:09	8:11	8:13	8:15	8:17	8:18	8:19	8:22
7:59	8:03	8:07	8:09	8:11	8:13	8:14	8:16	—	—	8:19	8:21	8:23	8:24	8:25	8:28
8:07	8:11	8:15	8:17	8:19	8:21	8:22	8:24	—	—	8:27	8:29	8:31	8:32	8:33	8:36
—	—	—	—	—	—	—	—	8:28	8:30	8:32	8:34	8:36	8:37	8:38	8:41
8:22	8:26	8:30	8:32	8:34	8:36	8:37	8:39	—	—	8:42	8:44	8:46	8:47	8:48	8:51
—	—	—	—	—	—	—	—	8:48	8:50	8:52	8:54	8:56	8:57	8:58	9:01
8:42	8:46	8:50	8:52	8:54	8:56	8:57	8:59	—	—	9:02	9:04	9:06	9:07	9:08	9:11
—	—	—	—	—	—	—	—	9:08	9:10	9:12	9:14	9:16	9:17	9:18	9:21
9:02	9:06	9:10	9:12	9:14	9:16	9:17	9:19	—	—	9:22	9:24	9:26	9:27	9:28	9:31
Trains Scheduled Every: 20 minutes								20 minutes		10 minutes					
All service after 9:00PM is subject to minor delays for system maintenance. *Todo servicio después de las 9:00PM es sujeto a retrasos menores para mantenencia a la sistema.*															
—	—	—	—	—	—	—	—	11:48	11:50	11:52	11:54	11:56	11:57	11:58	12:01A
11:42	11:46	11:50	11:52	11:54	11:56	11:57	11:59	—	—	12:02A	12:04A	12:06A	12:07A	12:08A	12:11
—	—	—	—	—	—	—	—	12:08A	12:10A	12:12	12:14	12:16	12:17	12:18	12:21
12:02A	12:06A	12:10A	12:12A	12:14A	12:16A	12:17A	12:19A	—	—	12:22	12:24	12:26	12:27	12:28	12:31

Meet Metro Micro.

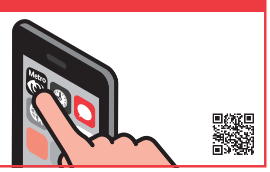
Metro's on-demand rideshare service is safe and affordable for local trips. Find your zone and download the app at *metro.net/micro* or call 323.466.3876.



Connect to Metro Security 24/7.

Call: 888.950.7233
Text: 213.788.2777
App: LA Metro Transit Watch

Call 911 for emergencies.



Metro Rail

B Line (Red)
D Line (Purple)

Union Station - North Hollywood
Union Station - Wilshire/Western

Effective Feb 20 2022

metro.net
323.GO.METRO
Wheelchair Hotline 800.621.7828
Travel Info 511
California Relay Service 711

Monday through Friday — B & D Lines (Red & Purple)

Effective Feb 20 2022

Westbound *Al Oeste* (Approximate Times/*Tiempos Aproximados*)

DOWNTOWN LA | LOS ANGELES | HOLLYWOOD | UNIVERSAL CITY | NORTH HOLLYWOOD

B Line (Red) Stations / D Line (Purple) Stations

Union Station	Civic Center/Grand Park	Pershing Square	7th St/Metro Center	Westlake/MacArthur Park	Wilshire/Vermont	Wilshire/Normandie	Wilshire/Western	Vermont/Beverly	Vermont/Santa Monica	Vermont/Sunset	Hollywood/Western	Hollywood/Vine	Hollywood/Highland	Universal/Studio City	North Hollywood
4:10A	4:12A	4:13A	4:15A	4:17A	4:19A	—	—	4:21A	4:23A	4:24A	4:26A	4:29A	4:31A	4:35A	4:39A
4:30	4:32	4:33	4:35	4:37	4:39	—	—	4:41	4:43	4:44	4:46	4:49	4:51	4:55	4:59
4:47	4:49	4:50	4:52	4:54	4:56	—	—	4:58	5:00	5:01	5:03	5:06	5:08	5:12	5:16
4:57	4:59	5:00	5:02	5:04	5:06	5:08A	5:10A	—	—	—	—	—	—	—	—
5:05	5:07	5:08	5:10	5:12	5:14	—	—	5:16	5:18	5:19	5:21	5:24	5:26	5:30	5:34
5:14	5:16	5:17	5:19	5:21	5:23	5:25	5:27	—	—	—	—	—	—	—	—
5:23	5:25	5:26	5:28	5:30	5:32	—	—	5:34	5:36	5:37	5:39	5:42	5:44	5:48	5:52
5:31	5:33	5:34	5:36	5:38	5:40	5:42	5:44	—	—	—	—	—	—	—	—
5:38	5:40	5:41	5:43	5:45	5:47	—	—	5:49	5:51	5:52	5:54	5:57	5:59	6:03	6:07
5:46	5:48	5:49	5:51	5:53	5:55	5:57	5:59	—	—	—	—	—	—	—	—
5:53	5:55	5:56	5:58	6:00	6:02	—	—	6:04	6:06	6:07	6:09	6:12	6:14	6:18	6:22
6:01	6:03	6:04	6:06	6:08	6:10	6:12	6:14	—	—	—	—	—	—	—	—
6:08	6:10	6:11	6:13	6:15	6:17	—	—	6:19	6:21	6:22	6:24	6:27	6:29	6:33	6:37
6:16	6:18	6:19	6:21	6:23	6:25	6:27	6:29	—	—	—	—	—	—	—	—
6:23	6:25	6:26	6:28	6:30	6:32	—	—	6:34	6:36	6:37	6:39	6:42	6:44	6:48	6:52
6:31	6:33	6:34	6:36	6:38	6:40	6:42	6:44	—	—	—	—	—	—	—	—
6:38	6:40	6:41	6:43	6:45	6:47	—	—	6:49	6:51	6:52	6:54	6:57	6:59	7:03	7:07
6:46	6:48	6:49	6:51	6:53	6:55	6:57	6:59	—	—	—	—	—	—	—	—
6:53	6:55	6:56	6:58	7:00	7:02	—	—	7:04	7:06	7:07	7:09	7:12	7:14	7:18	7:22
7:01	7:03	7:04	7:06	7:08	7:10	7:12	7:14	—	—	—	—	—	—	—	—
7:08	7:10	7:11	7:13	7:15	7:17	—	—	7:19	7:21	7:22	7:24	7:27	7:29	7:33	7:37
7:16	7:18	7:19	7:21	7:23	7:25	7:27	7:29	—	—	—	—	—	—	—	—
7:23	7:25	7:26	7:28	7:30	7:32	—	—	7:34	7:36	7:37	7:39	7:42	7:44	7:48	7:52
7:31	7:33	7:34	7:36	7:38	7:40	7:42	7:44	—	—	—	—	—	—	—	—
7:38	7:40	7:41	7:43	7:45	7:47	—	—	7:49	7:51	7:52	7:54	7:57	7:59	8:03	8:07
7:46	7:48	7:49	7:51	7:53	7:55	7:57	7:59	—	—	—	—	—	—	—	—
7:53	7:55	7:56	7:58	8:00	8:02	—	—	8:04	8:06	8:07	8:09	8:12	8:14	8:18	8:22
8:01	8:03	8:04	8:06	8:08	8:10	8:12	8:14	—	—	—	—	—	—	—	—
8:08	8:10	8:11	8:13	8:15	8:17	—	—	8:19	8:21	8:22	8:24	8:27	8:29	8:33	8:37
8:16	8:18	8:19	8:21	8:23	8:25	8:27	8:29	—	—	—	—	—	—	—	—
8:23	8:25	8:26	8:28	8:30	8:32	—	—	8:34	8:36	8:37	8:39	8:42	8:44	8:48	8:52
8:31	8:33	8:34	8:36	8:38	8:40	8:42	8:44	—	—	—	—	—	—	—	—
8:38	8:40	8:41	8:43	8:45	8:47	—	—	8:49	8:51	8:52	8:54	8:57	8:59	9:03	9:07
8:46	8:48	8:49	8:51	8:53	8:55	8:57	8:59	—	—	—	—	—	—	—	—
8:53	8:55	8:56	8:58	9:00	9:02	—	—	9:04	9:06	9:07	9:09	9:12	9:14	9:18	9:22
9:01	9:03	9:04	9:06	9:08	9:10	9:12	9:14	—	—	—	—	—	—	—	—
9:08	9:10	9:11	9:13	9:15	9:17	—	—	9:19	9:21	9:22	9:24	9:27	9:29	9:33	9:37
9:16	9:18	9:19	9:21	9:23	9:25	9:27	9:29	—	—	—	—	—	—	—	—
Trains Scheduled Every: 7.5 minutes						15 minutes		15 minutes							
5:53P	5:55P	5:56P	5:58P	6:00P	6:02P	—	—	6:04P	6:06P	6:07P	6:09P	6:12P	6:14P	6:18P	6:22P
6:01	6:03	6:04	6:06	6:08	6:10	6:12P	6:14P	—	—	—	—	—	—	—	—
6:08	6:10	6:11	6:13	6:15	6:17	—	—	6:19	6:21	6:22	6:24	6:27	6:29	6:33	6:37
6:16	6:18	6:19	6:21	6:23	6:25	6:27	6:29	—	—	—	—	—	—	—	—
6:23	6:25	6:26	6:28	6:30	6:32	—	—	6:34	6:36	6:37	6:39	6:42	6:44	6:48	6:52
6:31	6:33	6:34	6:36	6:38	6:40	6:42	6:44	—	—	—	—	—	—	—	—
6:38	6:40	6:41	6:43	6:45	6:47	—	—	6:49	6:51	6:52	6:54	6:57	6:59	7:03	7:07
6:46	6:48	6:49	6:51	6:53	6:55	6:57	6:59	—	—	—	—	—	—	—	—
6:53	6:55	6:56	6:58	7:00	7:02	—	—	7:04	7:06	7:07	7:09	7:12	7:14	7:18	7:22
7:01	7:03	7:04	7:06	7:08	7:10	7:12	7:14	—	—	—	—	—	—	—	—
7:08	7:10	7:11	7:13	7:15	7:17	—	—	7:19	7:21	7:22	7:24	7:27	7:29	7:33	7:37
7:16	7:18	7:19	7:21	7:23	7:25	7:27	7:29	—	—	—	—	—	—	—	—
7:23	7:25	7:26	7:28	7:30	7:32	—	—	7:34	7:36	7:37	7:39	7:42	7:44	7:48	7:52
7:32	7:34	7:35	7:37	7:39	7:41	7:43	7:45	—	—	—	—	—	—	—	—
7:41	7:43	7:44	7:46	7:48	7:50	—	—	7:52	7:54	7:55	7:57	8:00	8:02	8:06	8:10
7:51	7:53	7:54	7:56	7:58	8:00	8:02	8:04	—	—	—	—	—	—	—	—
8:01	8:03	8:04	8:06	8:08	8:10	—	—	8:12	8:14	8:15	8:17	8:20	8:22	8:26	8:30
8:11	8:13	8:14	8:16	8:18	8:20	8:22	8:24	—	—	—	—	—	—	—	—
8:21	8:23	8:24	8:26	8:28	8:30	—	—	8:32	8:34	8:35	8:37	8:40	8:42	8:46	8:50
8:31	8:33	8:34	8:36	8:38	8:40	8:42	8:44	—	—	—	—	—	—	—	—
8:41	8:43	8:44	8:46	8:48	8:50	—	—	8:52	8:54	8:55	8:57	9:00	9:02	9:06	9:10
8:51	8:53	8:54	8:56	8:58	9:00	9:02	9:04	—	—	—	—	—	—	—	—
Trains Scheduled Every: 10 minutes						20 minutes		20 minutes							
All service after 9:00PM is subject to minor delays for system maintenance. *Todo servicio después de las 9:00PM es sujeto a retrasos menores para mantenencia a la sistema.*															
11:51	11:53	11:54	11:56	11:58	12:00A	12:02A	12:04A	—	—	—	—	—	—	—	—
12:01A	12:03A	12:04A	12:06A	12:08A	12:10	—	—	12:12A	12:14A	12:15A	12:17A	12:20A	12:22A	12:26A	12:30A
12:11	12:13	12:14	12:16	12:18	12:20	12:22	12:24	—	—	—	—	—	—	—	—

Saturday, Sunday and Holiday Schedules

Saturday, Sunday and Holiday Schedule in effect on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Horarios de domingo y días feriados

Horarios de sábado, domingo, y días feriados en vigor para New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day.

Special Notes

All service after 9:00PM is subject to minor delays for system maintenance. Please visit http://bit.ly/Red411 or call 323.GO.METRO for latest information.

Avisos especiales

Todo servicio después de las 9:00PM es sujeto a retrasos menores para mantenencia a la sistema. Favor de visitar http://bit.ly/Red411 o llamar al 323.GO.METRO para mas informacion.

Need information?

Transit Information: 323.466.3876
Customer Relations: 213.922.6235
In an Emergency: 1.888.950.7233 or 911

And for all you need to know, visit *metro.net*.

Lose something?

Learn more about Metro's Lost & Found service. Visit *metro.net/lostandfound* or call 323.937.8920.

151074

Saturday, Sunday & Holiday — B & D Lines (Red & Purple)

Effective Feb 20 2022

Eastbound *Al Este* (Approximate Times/*Tiempos Aproximados*)

NORTH HOLLYWOOD · UNIVERSAL CITY · HOLLYWOOD · LOS ANGELES · DOWNTOWN LA

B Line (Red) Stations / D Line (Purple) Stations

North Hollywood	Universal/Studio City	Hollywood/Highland	Hollywood/Vine	Hollywood/Western	Vermont/Sunset	Vermont/Santa Monica	Vermont/Beverly	Wilshire/Western	Wilshire/Normandie	Wilshire/Vermont	Westlake/MacArthur Park	7th St/Metro Center	Pershing Square	Civic Center/Grand Park	Union Station
—	—	—	—	—	—	—	—	4:40A	4:42A	4:44A	4:46A	4:48A	4:49A	4:50A	4:53A
4:32A	4:36A	4:40A	4:42A	4:44A	4:46A	4:47A	4:49A	—	—	4:52	4:54	4:56	4:57	4:58	5:01
—	—	—	—	—	—	—	—	4:58	5:00	5:02	5:04	5:06	5:07	5:08	5:11
4:52	4:56	5:00	5:02	5:04	5:06	5:07	5:09	—	—	5:12	5:14	5:16	5:17	5:18	5:21
—	—	—	—	—	—	—	—	5:18	5:20	5:22	5:24	5:26	5:27	5:28	5:31
5:12	5:16	5:20	5:22	5:24	5:26	5:27	5:29	—	—	5:32	5:34	5:36	5:37	5:38	5:41
—	—	—	—	—	—	—	—	5:38	5:40	5:42	5:44	5:46	5:47	5:48	5:51
5:32	5:36	5:40	5:42	5:44	5:46	5:47	5:49	—	—	5:52	5:54	5:56	5:57	5:58	6:01
—	—	—	—	—	—	—	—	5:58	6:00	6:02	6:04	6:06	6:07	6:08	6:11
5:52	5:56	6:00	6:02	6:04	6:06	6:07	6:09	—	—	6:12	6:14	6:16	6:17	6:18	6:21
—	—	—	—	—	—	—	—	6:18	6:20	6:22	6:24	6:26	6:27	6:28	6:31
6:12	6:16	6:20	6:22	6:24	6:26	6:27	6:29	—	—	6:32	6:34	6:36	6:37	6:38	6:41
—	—	—	—	—	—	—	—	6:38	6:40	6:42	6:44	6:46	6:47	6:48	6:51
6:32	6:36	6:40	6:42	6:44	6:46	6:47	6:49	—	—	6:52	6:54	6:56	6:57	6:58	7:01
—	—	—	—	—	—	—	—	6:58	7:00	7:02	7:04	7:06	7:07	7:08	7:11
6:52	6:56	7:00	7:02	7:04	7:06	7:07	7:09	—	—	7:12	7:14	7:16	7:17	7:18	7:21
—	—	—	—	—	—	—	—	7:18	7:20	7:22	7:24	7:26	7:27	7:28	7:31
7:12	7:16	7:20	7:22	7:24	7:26	7:27	7:29	—	—	7:32	7:34	7:36	7:37	7:38	7:41
—	—	—	—	—	—	—	—	7:38	7:40	7:42	7:44	7:46	7:47	7:48	7:51
7:32	7:36	7:40	7:42	7:44	7:46	7:47	7:49	—	—	7:52	7:54	7:56	7:57	7:58	8:01
—	—	—	—	—	—	—	—	7:58	8:00	8:02	8:04	8:06	8:07	8:08	8:11
7:52	7:56	8:00	8:02	8:04	8:06	8:07	8:09	—	—	8:12	8:14	8:16	8:17	8:18	8:21
—	—	—	—	—	—	—	—	8:18	8:20	8:22	8:24	8:26	8:27	8:28	8:31
8:11	8:15	8:19	8:21	8:23	8:25	8:26	8:28	—	—	8:31	8:33	8:35	8:36	8:37	8:40
—	—	—	—	—	—	—	—	8:35	8:37	8:39	8:41	8:43	8:44	8:45	8:48
8:27	8:31	8:35	8:37	8:39	8:41	8:42	8:44	—	—	8:47	8:49	8:51	8:52	8:53	8:56
—	—	—	—	—	—	—	—	8:51	8:53	8:55	8:57	8:59	9:00	9:01	9:04
8:43	8:47	8:51	8:53	8:55	8:57	8:58	9:00	—	—	9:03	9:05	9:07	9:08	9:09	9:12
—	—	—	—	—	—	—	—	9:06	9:08	9:10	9:12	9:14	9:15	9:16	9:19
8:58	9:02	9:06	9:08	9:10	9:12	9:13	9:15	—	—	9:18	9:20	9:22	9:23	9:24	9:27
—	—	—	—	—	—	—	—	9:21	9:23	9:25	9:27	9:29	9:30	9:31	9:34
9:13	9:17	9:21	9:23	9:25	9:27	9:28	9:30	—	—	9:33	9:35	9:37	9:38	9:39	9:42
—	—	—	—	—	—	—	—	9:36	9:38	9:40	9:42	9:44	9:45	9:46	9:49
9:28	9:32	9:36	9:38	9:40	9:42	9:43	9:45	—	—	9:48	9:50	9:52	9:53	9:54	9:57
—	—	—	—	—	—	—	—	9:51	9:53	9:55	9:57	9:59	10:00	10:01	10:04
9:43	9:47	9:51	9:53	9:55	9:57	9:58	10:00	—	—	10:03	10:05	10:07	10:08	10:09	10:12
—	—	—	—	—	—	—	—	10:06	10:08	10:10	10:12	10:14	10:15	10:16	10:19
9:58	10:02	10:06	10:08	10:10	10:12	10:13	10:15	—	—	10:18	10:20	10:22	10:23	10:24	10:27
—	—	—	—	—	—	—	—	10:21	10:23	10:25	10:27	10:29	10:30	10:31	10:34
10:13	10:17	10:21	10:23	10:25	10:27	10:28	10:30	—	—	10:33	10:35	10:37	10:38	10:39	10:42
—	—	—	—	—	—	—	—	10:36	10:38	10:40	10:42	10:44	10:45	10:46	10:49
10:28	10:32	10:36	10:38	10:40	10:42	10:43	10:45	—	—	10:48	10:50	10:52	10:53	10:54	10:57
—	—	—	—	—	—	—	—	10:51	10:53	10:55	10:57	10:59	11:00	11:01	11:04
10:43	10:47	10:51	10:53	10:55	10:57	10:58	11:00	—	—	11:03	11:05	11:07	11:08	11:09	11:12
Trains Scheduled Every: 15 minutes								15 minutes		7.5 minutes					
—	—	—	—	—	—	—	—	5:51P	5:53P	5:55P	5:57P	5:59P	6:00P	6:01P	6:04P
5:43P	5:47P	5:51P	5:53P	5:55P	5:57P	5:58P	6:00P	—	—	6:03	6:05	6:07	6:08	6:09	6:12
—	—	—	—	—	—	—	—	6:06	6:08	6:10	6:12	6:14	6:15	6:16	6:19
5:58	6:02	6:06	6:08	6:10	6:12	6:13	6:15	—	—	6:18	6:20	6:22	6:23	6:24	6:27
—	—	—	—	—	—	—	—	6:21	6:23	6:25	6:27	6:29	6:30	6:31	6:34
6:13	6:17	6:21	6:23	6:25	6:27	6:28	6:30	—	—	6:33	6:35	6:37	6:38	6:39	6:42
—	—	—	—	—	—	—	—	6:36	6:38	6:40	6:42	6:44	6:45	6:46	6:49
6:28	6:32	6:36	6:38	6:40	6:42	6:43	6:45	—	—	6:48	6:50	6:52	6:53	6:54	6:57
—	—	—	—	—	—	—	—	6:51	6:53	6:55	6:57	6:59	7:00	7:01	7:04
6:43	6:47	6:51	6:53	6:55	6:57	6:58	7:00	—	—	7:03	7:05	7:07	7:08	7:09	7:12
—	—	—	—	—	—	—	—	7:06	7:08	7:10	7:12	7:14	7:15	7:16	7:19
6:58	7:02	7:06	7:08	7:10	7:12	7:13	7:15	—	—	7:18	7:20	7:22	7:23	7:24	7:27
—	—	—	—	—	—	—	—	7:21	7:23	7:25	7:27	7:29	7:30	7:31	7:34
7:13	7:17	7:21	7:23	7:25	7:27	7:28	7:30	—	—	7:33	7:35	7:37	7:38	7:39	7:42
—	—	—	—	—	—	—	—	7:36	7:38	7:40	7:42	7:44	7:45	7:46	7:49
7:28	7:32	7:36	7:38	7:40	7:42	7:43	7:45	—	—	7:48	7:50	7:52	7:53	7:54	7:57
—	—	—	—	—	—	—	—	7:51	7:53	7:55	7:57	7:59	8:00	8:01	8:04
7:43	7:47	7:51	7:53	7:55	7:57	7:58	8:00	—	—	8:03	8:05	8:07	8:08	8:09	8:12
—	—	—	—	—	—	—	—	8:07	8:09	8:11	8:13	8:15	8:16	8:17	8:20
7:59	8:03	8:07	8:09	8:11	8:13	8:14	8:16	—	—	8:19	8:21	8:23	8:24	8:25	8:28
8:07	8:11	8:15	8:17	8:19	8:21	8:22	8:24	—	—	8:27	8:29	8:31	8:32	8:33	8:36
—	—	—	—	—	—	—	—	8:28	8:30	8:32	8:34	8:36	8:37	8:38	8:41
8:22	8:26	8:30	8:32	8:34	8:36	8:37	8:39	—	—	8:42	8:44	8:46	8:47	8:48	8:51
—	—	—	—	—	—	—	—	8:48	8:50	8:52	8:54	8:56	8:57	8:58	9:01
8:42	8:46	8:50	8:52	8:54	8:56	8:57	8:59	—	—	9:02	9:04	9:06	9:07	9:08	9:11
—	—	—	—	—	—	—	—	9:08	9:10	9:12	9:14	9:16	9:17	9:18	9:21
9:02	9:06	9:10	9:12	9:14	9:16	9:17	9:19	—	—	9:22	9:24	9:26	9:27	9:28	9:31
Trains Scheduled Every: 20 minutes								20 minutes		10 minutes					
All service after 9:00PM is subject to minor delays for system maintenance. *Todo servicio después de las 9:00PM es sujeto a retrasos menores para mantenencia a la sistema.*															
—	—	—	—	—	—	—	—	11:48	11:50	11:52	11:54	11:56	11:57	11:58	12:01A
11:42	11:46	11:50	11:52	11:54	11:56	11:57	11:59	—	—	12:02A	12:04A	12:06A	12:07A	12:08A	12:11
—	—	—	—	—	—	—	—	12:08A	12:10A	12:12	12:14	12:16	12:17	12:18	12:21
12:02A	12:06A	12:10A	12:12A	12:14A	12:16A	12:17A	12:19A	—	—	12:22	12:24	12:26	12:27	12:28	12:31

Westbound *Al Oeste* (Approximate Times/*Tiempos Aproximados*)

DOWNTOWN LA · LOS ANGELES · HOLLYWOOD · UNIVERSAL CITY · NORTH HOLLYWOOD

B Line (Red) Stations / D Line (Purple) Stations

Union Station	Civic Center/Grand Park	Pershing Square	7th St/Metro Center	Westlake/MacArthur Park	Wilshire/Vermont	Wilshire/Normandie	Wilshire/Western	Vermont/Beverly	Vermont/Santa Monica	Vermont/Sunset	Hollywood/Western	Hollywood/Vine	Hollywood/Highland	Universal/Studio City	North Hollywood
4:10A	4:12A	4:13A	4:15A	4:17A	4:19A	—	—	4:21A	4:23A	4:24A	4:26A	4:29A	4:31A	4:35A	4:39A
4:31	4:33	4:34	4:36	4:38	4:40	—	—	4:42	4:44	4:45	4:47	4:50	4:52	4:56	5:00
4:51	4:53	4:54	4:56	4:58	5:00	—	—	5:02	5:04	5:05	5:07	5:10	5:12	5:16	5:20
5:01	5:03	5:04	5:06	5:08	5:10	5:12A	5:14A	—	—	—	—	—	—	—	—
5:11	5:13	5:14	5:16	5:18	5:20	—	—	5:22	5:24	5:25	5:27	5:30	5:32	5:36	5:40
5:21	5:23	5:24	5:26	5:28	5:30	5:32	5:34	—	—	—	—	—	—	—	—
5:31	5:33	5:34	5:36	5:38	5:40	—	—	5:42	5:44	5:45	5:47	5:50	5:52	5:56	6:00
5:41	5:43	5:44	5:46	5:48	5:50	5:52	5:54	—	—	—	—	—	—	—	—
5:51	5:53	5:54	5:56	5:58	6:00	—	—	6:02	6:04	6:05	6:07	6:10	6:12	6:16	6:20
6:01	6:03	6:04	6:06	6:08	6:10	6:12	6:14	—	—	—	—	—	—	—	—
6:11	6:13	6:14	6:16	6:18	6:20	—	—	6:22	6:24	6:25	6:27	6:30	6:32	6:36	6:40
6:21	6:23	6:24	6:26	6:28	6:30	6:32	6:34	—	—	—	—	—	—	—	—
6:31	6:33	6:34	6:36	6:38	6:40	—	—	6:42	6:44	6:45	6:47	6:50	6:52	6:56	7:00
6:41	6:43	6:44	6:46	6:48	6:50	6:52	6:54	—	—	—	—	—	—	—	—
6:51	6:53	6:54	6:56	6:58	7:00	—	—	7:02	7:04	7:05	7:07	7:10	7:12	7:16	7:20
7:01	7:03	7:04	7:06	7:08	7:10	7:12	7:14	—	—	—	—	—	—	—	—
7:11	7:13	7:14	7:16	7:18	7:20	—	—	7:22	7:24	7:25	7:27	7:30	7:32	7:36	7:40
7:21	7:23	7:24	7:26	7:28	7:30	7:32	7:34	—	—	—	—	—	—	—	—
7:31	7:33	7:34	7:36	7:38	7:40	—	—	7:42	7:44	7:45	7:47	7:50	7:52	7:56	8:00
7:41	7:43	7:44	7:46	7:48	7:50	7:52	7:54	—	—	—	—	—	—	—	—
7:51	7:53	7:54	7:56	7:58	8:00	—	—	8:02	8:04	8:05	8:07	8:10	8:12	8:16	8:20
8:00	8:02	8:03	8:05	8:07	8:09	8:11	8:13	—	—	—	—	—	—	—	—
8:08	8:10	8:11	8:13	8:15	8:17	—	—	8:19	8:21	8:22	8:24	8:27	8:29	8:33	8:37
8:16	8:18	8:19	8:21	8:23	8:25	8:27	8:29	—	—	—	—	—	—	—	—
8:24	8:26	8:27	8:29	8:31	8:33	—	—	8:35	8:37	8:38	8:40	8:43	8:45	8:49	8:53
8:32	8:34	8:35	8:37	8:39	8:41	8:43	8:45	—	—	—	—	—	—	—	—
8:39	8:41	8:42	8:44	8:46	8:48	—	—	8:50	8:52	8:53	8:55	8:58	9:00	9:04	9:08
8:47	8:49	8:50	8:52	8:54	8:56	8:58	9:00	—	—	—	—	—	—	—	—
8:54	8:56	8:57	8:59	9:01	9:03	—	—	9:05	9:07	9:08	9:10	9:13	9:15	9:19	9:23
9:02	9:04	9:05	9:07	9:09	9:11	9:13	9:15	—	—	—	—	—	—	—	—
9:09	9:11	9:12	9:14	9:16	9:18	—	—	9:20	9:22	9:23	9:25	9:28	9:30	9:34	9:38
9:17	9:19	9:20	9:22	9:24	9:26	9:28	9:30	—	—	—	—	—	—	—	—
9:24	9:26	9:27	9:29	9:31	9:33	—	—	9:35	9:37	9:38	9:40	9:43	9:45	9:49	9:53
9:32	9:34	9:35	9:37	9:39	9:41	9:43	9:45	—	—	—	—	—	—	—	—
9:39	9:41	9:42	9:44	9:46	9:48	—	—	9:50	9:52	9:53	9:55	9:58	10:00	10:04	10:08
9:47	9:49	9:50	9:52	9:54	9:56	9:58	10:00	—	—	—	—	—	—	—	—
9:54	9:56	9:57	9:59	10:01	10:03	—	—	10:05	10:07	10:08	10:10	10:13	10:15	10:19	10:23
10:02	10:04	10:05	10:07	10:09	10:11	10:13	10:15	—	—	—	—	—	—	—	—
10:09	10:11	10:12	10:14	10:16	10:18	—	—	10:20	10:22	10:23	10:25	10:28	10:30	10:34	10:38
10:17	10:19	10:20	10:22	10:24	10:26	10:28	10:30	—	—	—	—	—	—	—	—
10:24	10:26	10:27	10:29	10:31	10:33	—	—	10:35	10:37	10:38	10:40	10:43	10:45	10:49	10:53
10:32	10:34	10:35	10:37	10:39	10:41	10:43	10:45	—	—	—	—	—	—	—	—
10:39	10:41	10:42	10:44	10:46	10:48	—	—	10:50	10:52	10:53	10:55	10:58	11:00	11:04	11:08
10:47	10:49	10:50	10:52	10:54	10:56	10:58	11:00	—	—	—	—	—	—	—	—
10:54	10:56	10:57	10:59	11:01	11:03	—	—	11:05	11:07	11:08	11:10	11:13	11:15	11:19	11:23
11:02	11:04	11:05	11:07	11:09	11:11	11:13	11:15	—	—	—	—	—	—	—	—
11:09	11:11	11:12	11:14	11:16	11:18	—	—	11:20	11:22	11:23	11:25	11:28	11:30	11:34	11:38
11:17	11:19	11:20	11:22	11:24	11:26	11:28	11:30	—	—	—	—	—	—	—	—
11:24	11:26	11:27	11:29	11:31	11:33	—	—	11:35	11:37	11:38	11:40	11:43	11:45	11:49	11:53
Trains Scheduled Every: 7.5 minutes						15 minutes		15 minutes							
5:54P	5:56P	5:57P	5:59P	6:01P	6:03P	—	—	6:05P	6:07P	6:08P	6:10P	6:13P	6:15P	6:19P	6:23P
6:02	6:04	6:05	6:07	6:09	6:11	6:13P	6:15P	—	—	—	—	—	—	—	—
6:09	6:11	6:12	6:14	6:16	6:18	—	—	6:20	6:22	6:23	6:25	6:28	6:30	6:34	6:38
6:17	6:19	6:20	6:22	6:24	6:26	6:28	6:30	—	—	—	—	—	—	—	—
6:24	6:26	6:27	6:29	6:31	6:33	—	—	6:35	6:37	6:38	6:40	6:43	6:45	6:49	6:53
6:32	6:34	6:35	6:37	6:39	6:41	6:43	6:45	—	—	—	—	—	—	—	—
6:39	6:41	6:42	6:44	6:46	6:48	—	—	6:50	6:52	6:53	6:55	6:58	7:00	7:04	7:08
6:47	6:49	6:50	6:52	6:54	6:56	6:58	7:00	—	—	—	—	—	—	—	—
6:54	6:56	6:57	6:59	7:01	7:03	—	—	7:05	7:07	7:08	7:10	7:13	7:15	7:19	7:23
7:02	7:04	7:05	7:07	7:09	7:11	7:13	7:15	—	—	—	—	—	—	—	—
7:09	7:11	7:12	7:14	7:16	7:18	—	—	7:20	7:22	7:23	7:25	7:28	7:30	7:34	7:38
7:17	7:19	7:20	7:22	7:24	7:26	7:28	7:30	—	—	—	—	—	—	—	—
7:24	7:26	7:27	7:29	7:31	7:33	—	—	7:35	7:37	7:38	7:40	7:43	7:45	7:49	7:53
7:32	7:34	7:35	7:37	7:39	7:41	7:43	7:45	—	—	—	—	—	—	—	—
7:41	7:43	7:44	7:46	7:48	7:50	—	—	7:52	7:54	7:55	7:57	8:00	8:02	8:06	8:10
7:51	7:53	7:54	7:56	7:58	8:00	8:02	8:04	—	—	—	—	—	—	—	—
8:01	8:03	8:04	8:06	8:08	8:10	—	—	8:12	8:14	8:15	8:17	8:20	8:22	8:26	8:30
8:11	8:13	8:14	8:16	8:18	8:20	8:22	8:24	—	—	—	—	—	—	—	—
8:21	8:23	8:24	8:26	8:28	8:30	—	—	8:32	8:34	8:35	8:37	8:40	8:42	8:46	8:50
8:31	8:33	8:34	8:36	8:38	8:40	8:42	8:44	—	—	—	—	—	—	—	—
8:41	8:43	8:44	8:46	8:48	8:50	—	—	8:52	8:54	8:55	8:57	9:00	9:02	9:06	9:10
8:51	8:53	8:54	8:56	8:58	9:00	9:02	9:04	—	—	—	—	—	—	—	—
9:01	9:03	9:04	9:06	9:08	9:10	—	—	9:12	9:14	9:15	9:17	9:20	9:22	9:26	9:30
Trains Scheduled Every: 10 minutes						20 minutes		20 minutes							
All service after 9:00PM is subject to minor delays for system maintenance. *Todo servicio después de las 9:00PM es sujeto a retrasos menores para mantenencia a la sistema.*															
11:51	11:53	11:54	11:56	11:58	12:00A	12:02A	12:04A	—	—	—	—	—	—	—	—
12:01A	12:03A	12:04A	12:06A	12:08A	12:10	—	—	12:12A	12:14A	12:15A	12:17A	12:20A	12:22A	12:26A	12:30A
12:11	12:13	12:14	12:16	12:18	12:20	12:22	12:24	—	—	—	—	—	—	—	—

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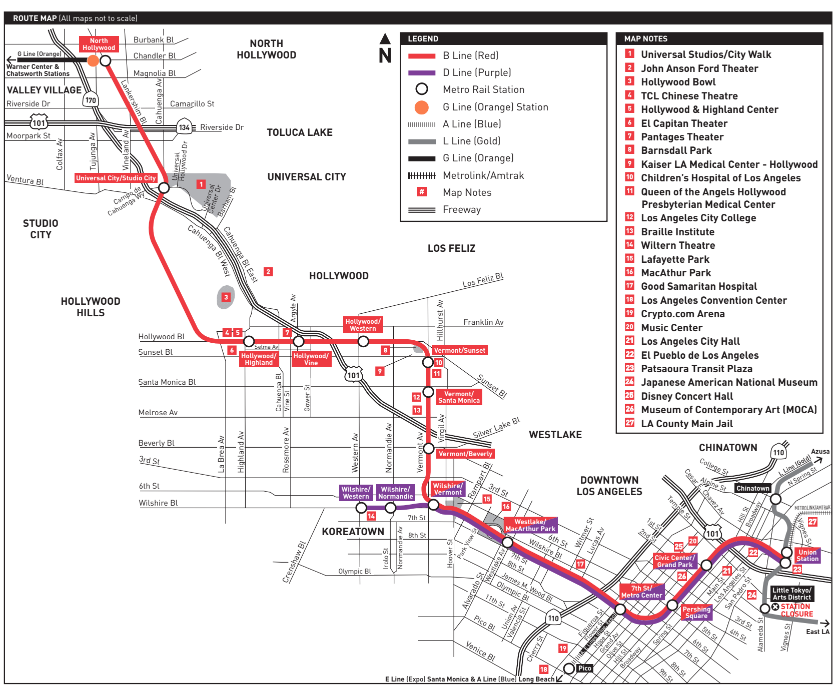
Lose something?

Learn more about Metro's Lost & Found service. Visit *metro.net/lostandfound* or call 323.937.8920.



CONNECTIONS

Union Station — PARKING AVAILABLE
- Metro: Metro Rail L Line (Gold) Shuttle; Metro Busway J Line (Silver); Metro Local 28, 30, 40, 70, 76, 78, 106, 487, 489;
- Foothill Transit: Silver Streak, 493, 495, 497, 498, 499, 699
- LADOT: DASH B, D, DASH Lincoln Heights/Chinatown; Commuter Express 431, 438, 439, 534; Union Station/Bunker Hill Shuttle
- Metrolink: Antelope Valley Line, Ventura County Line, San Bernardino Line, Riverside Line, Orange County Line, 91/Perris Valley Line
- Amtrak: Pacific Surfliner, Coast Starlight, Southwest Chief, Sunset Limited/Texas Eagle, San Joaquin Bus Connection
- Other providers: Antelope Valley Transit Authority 785, City of Santa Clarita Transit 794, Orange County Transportation Authority 701, Santa Monica Big Blue Bus R10; Torrance Transit 4; LAX FlyAway

Civic Center/Grand Park
- Metro: Metro Busway J Line (Silver); Metro Local 4, 10, 14, 28, 30, 33, 37, 40, 45, 48, 76, 78, 81, 90, 92, 94, 487, 489;
- Foothill Transit: Silver Streak, 493, 495, 497, 498, 499, 699
- LADOT: DASH A, B, D; Commuter Express 409, 419, 422, 423, 431, 437, 438, 448, 534
- Other Providers: Antelope Valley Transit Authority 785; Santa Clarita Transit 799; Montebello Bus Line 90 Express; Orange County Transportation Authority 701, 721; Santa Monica Big Blue Bus R10; Torrance Transit 4

Pershing Square
- Metro: Metro Busway J Line (Silver); Metro Local 4, 10, 14, 16, 18, 28, 30, 33, 37, 38, 40, 45, 48, 53, 55, 62, 76, 78, 81, 92, 94, 460, 487, 489; Metro Rapid 720,
- Foothill Transit: Silver Streak
- LADOT: DASH B, D; Commuter Express 419
- Other Providers: Montebello Bus Lines 40, 50, 90 Express; Orange County Transportation Authority 701, 721; Torrance Transit 4X

7th Street/Metro Center
- Metro: Metro Rail A, E Lines (Blue, Expo); Metro Busway J Line (Silver); Metro Local 14, 16, 18, 20, 35 late night, 37, 38 late night, 51, 55, 60, 62, 66, 76, 78, 81, 460; Metro Rapid 720
- Foothill Transit: Silver Streak, 493, 495, 497, 498, 499, 699
- LADOT: DASH A, B, E, F; Commuter Express 409, 419, 422, 423, 431, 437, 438, 448, 534
- Other Providers: Antelope Valley Transit Authority 785; City of Santa Clarita Transit 799; Montebello Bus Lines 40, 50, 90 Express; Orange County Transportation Authority 701, 721; Santa Monica Big Blue Bus R10; Torrance Transit 4X

Westlake/MacArthur Park
- Metro: Metro Local 2, 18, 20, 51, 603; Metro Rapid 720
- Other providers: LADOT DASH Pico Union/Echo Park

Wilshire/Vermont
- Metro: Metro Local 18, 20, 204; Metro Rapid 720, 754
- Other providers: LADOT DASH Wilshire Center/Koreatown

Wilshire/Normandie
- Metro: Metro Local 18, 20, 206; Metro Rapid 720

Wilshire/Western
- Metro: Metro Local 18, 20, 66, 207; Metro Rapid 720
- Other providers: LADOT DASH Wilshire Center/Koreatown, DASH Hollywood/Wilshire; Santa Monica Big Blue Bus Rapid 7

Vermont/Beverly
- Metro: Metro Local 14, 204, Metro Rapid 754

Vermont/Santa Monica
- Metro: Metro Local 4, 204, Metro Rapid 754
- LADOT: DASH Hollywood

Vermont/Sunset
- Metro: Metro Local 2, 182, 204, 206, 217 Owl; Metro Rapid 754
- LADOT: DASH Hollywood, DASH Los Feliz, DASH Observatory

Hollywood/Western
- Metro: Metro Local 180, 207, 217

Hollywood/Vine
- Metro: Metro Local 180, 210, 212, 217, 222
- Other providers: DASH Beachwood Canyon, DASH Hollywood, DASH Hollywood/Wilshire

Hollywood/Highland
- Metro: Metro Local 212, 217, 224 Owl
- Other providers: DASH Hollywood; West Hollywood Cityline Commuter

Universal City — PARKING AVAILABLE
- Metro: Metro Local 155, 222, 224, 240
- Other providers: Universal Studios/Citywalk Shuttle; Burbank Bus Pink Route

North Hollywood — PARKING AVAILABLE
- Metro: Metro Busway G Line (Orange); Metro Local 90, 94, 152, 154, 155, 162, 224, 237, 501
- Other providers: BurbankBus NoHo-Media District (Green Route), NoHo-Airport (Orange Route); City of Santa Clarita Transit 757; LADOT Commuter Express 549

Monday through Friday

Effective Jun 26 2022

4

Eastbound *Al Este* (Approximate Times / Tiempos Aproximados)

SANTA MONICA 1 6th & Santa Monica	WEST LOS ANGELES 2 Santa Monica & Westwood B	WEST HOLLYWOOD 3 Santa Monica & San Vicente	4 Santa Monica & Fairfax	LOS ANGELES 5 Santa Monica & Western	6 Santa Monica / Vermont Station	ECHO PARK 7 Sunset & Echo Park	LOS ANGELES 8 Venice & Broadway
4:37A	4:55A	5:08A	5:14A	5:27A	5:32A	5:42A	6:02A
4:57	5:16	5:29	5:35	5:48	5:53	6:03	6:23
5:16	5:35	5:48	5:54	6:07	6:13	6:24	6:45
5:28	5:48	6:01	6:07	6:21	6:27	6:39	7:01
5:39	5:59	6:13	6:19	6:33	6:39	6:51	7:13
5:50	6:11	6:25	6:31	6:45	6:51	7:03	7:25
6:02	6:23	6:37	6:43	6:57	7:03	7:16	7:39
6:10	6:31	6:46	6:52	7:07	7:13	7:26	7:49
—	6:40	6:55	7:01	7:17	7:23	7:36	8:00
6:26	6:49	7:04	7:11	7:27	7:33	7:47	8:11
—	6:58	7:14	7:21	7:37	7:43	7:57	8:21
6:44	7:07	7:23	7:30	7:47	7:53	8:07	8:31
—	7:17	7:33	7:40	7:57	8:03	8:17	8:41
7:02	7:26	7:43	7:50	8:07	8:13	8:27	8:51
—	7:36	7:53	8:00	8:17	8:23	8:37	9:01
7:20	7:45	8:02	8:10	8:27	8:33	8:47	9:11
—	7:54	8:12	8:20	8:37	8:43	8:57	9:21
7:39	8:04	8:22	8:30	8:47	8:53	9:08	9:32
—	8:14	8:32	8:40	8:57	9:03	9:18	9:42
7:57	8:23	8:42	8:50	9:07	9:13	9:28	9:51
—	8:33	8:52	9:00	9:17	9:23	9:38	10:01
8:16	8:43	9:02	9:10	9:27	9:33	9:48	10:12
—	8:53	9:12	9:20	9:37	9:43	9:58	10:22
8:35	9:03	9:22	9:30	9:47	9:53	10:08	10:32
—	9:12	9:31	9:40	9:57	10:03	10:18	10:43
8:54	9:22	9:41	9:50	10:07	10:13	10:28	10:53
—	9:31	9:50	9:59	10:17	10:23	10:39	11:04
9:14	9:41	10:00	10:09	10:27	10:33	10:49	11:14
—	9:51	10:10	10:19	10:37	10:43	10:59	11:24
9:33	10:00	10:19	10:28	10:47	10:53	11:09	11:34
—	10:10	10:29	10:38	10:57	11:04	11:20	11:45
9:53	10:20	10:39	10:48	11:07	11:14	11:30	11:55
—	10:29	10:48	10:57	11:17	11:24	11:41	12:06P
10:11	10:38	10:57	11:07	11:27	11:34	11:51	12:16
—	10:48	11:07	11:17	11:37	11:44	12:01P	12:26
10:30	10:57	11:16	11:26	11:47	11:54	12:11	12:36
—	11:07	11:26	11:36	11:57	12:04P	12:21	12:46
10:49	11:17	11:36	11:46	12:07P	12:14	12:31	12:56
—	11:26	11:46	11:56	12:17	12:24	12:41	1:06
11:06	11:35	11:55	12:06P	12:27	12:34	12:51	1:16
—	11:45	12:05P	12:16	12:37	12:44	1:01	1:26
11:22	11:53	12:14	12:25	12:47	12:54	1:11	1:36
—	12:03P	12:24	12:35	12:57	1:04	1:21	1:46
11:41	12:13	12:34	12:45	1:07	1:14	1:31	1:56
—	12:22	12:44	12:55	1:17	1:24	1:41	2:06
11:59	12:32	12:54	1:05	1:27	1:34	1:51	2:16
—	12:41	1:03	1:15	1:37	1:44	2:01	2:26
12:18P	12:50	1:12	1:24	1:47	1:54	2:11	2:36
—	1:00	1:22	1:34	1:57	2:04	2:21	2:46
12:38	1:10	1:32	1:44	2:07	2:14	2:31	2:56
—	1:19	1:42	1:54	2:17	2:24	2:42	3:07
12:56	1:29	1:52	2:04	2:27	2:34	2:52	3:17
—	1:39	2:02	2:14	2:37	2:44	3:02	3:28
1:15	1:49	2:12	2:24	2:47	2:54	3:13	3:39
—	1:59	2:22	2:34	2:57	3:04	3:23	3:49
1:35	2:09	2:32	2:44	3:07	3:14	3:33	3:59
—	2:18	2:41	2:53	3:17	3:24	3:43	4:09
1:52	2:27	2:51	3:03	3:27	3:34	3:53	4:19
—	2:37	3:01	3:13	3:37	3:44	4:03	4:29
2:10	2:46	3:10	3:22	3:47	3:54	4:13	4:39
—	2:56	3:21	3:33	3:58	4:05	4:24	4:50
2:31	3:07	3:32	3:44	4:09	4:16	4:35	5:01
—	3:18	3:43	3:55	4:20	4:27	4:45	5:11
2:52	3:29	3:54	4:06	4:31	4:38	4:56	5:22
—	3:38	4:03	4:16	4:41	4:48	5:06	5:32
3:11	3:48	4:13	4:26	4:51	4:58	5:16	5:42
—	3:57	4:23	4:36	5:01	5:08	5:26	5:52
3:30	4:07	4:33	4:46	5:11	5:18	5:36	6:02
—	4:16	4:43	4:56	5:21	5:28	5:46	6:11
3:48	4:25	4:53	5:06	5:31	5:38	5:56	6:21
—	4:35	5:03	5:16	5:41	5:48	6:06	6:31
4:08	4:45	5:13	5:26	5:51	5:58	6:15	6:39
—	4:55	5:24	5:36	6:01	6:08	6:25	6:49
4:28	5:05	5:34	5:46	6:11	6:18	6:35	6:58
—	5:16	5:45	5:57	6:21	6:28	6:44	7:07
4:50	5:27	5:56	6:07	6:31	6:38	6:54	7:16
—	5:39	6:07	6:18	6:41	6:48	7:04	7:26
5:18	5:52	6:20	6:31	6:53	7:00	7:16	7:38
—	6:05	6:32	6:43	7:05	7:11	7:27	7:48
5:47	6:19	6:45	6:56	7:17	7:23	7:38	7:59
6:01	6:33	6:58	7:08	7:29	7:35	7:50	8:11
6:17	6:47	7:11	7:21	7:41	7:47	8:02	8:23
6:32	7:01	7:24	7:34	7:53	7:59	8:13	8:34
6:46	7:14	7:36	7:46	8:05	8:11	8:25	8:46
7:02	7:29	7:49	7:59	8:17	8:23	8:37	8:58
7:15	7:41	8:01	8:11	8:29	8:35	8:49	9:10
7:29	7:55	8:14	8:24	8:41	8:47	9:01	9:22
7:42	8:08	8:27	8:36	8:53	8:59	9:12	9:33
7:55	8:21	8:39	8:48	9:05	9:11	9:24	9:45
8:08	8:33	8:51	9:00	9:17	9:23	9:36	9:57
8:21	8:45	9:03	9:12	9:29	9:35	9:48	10:08
8:33	8:57	9:15	9:24	9:41	9:47	10:00	10:19
8:46	9:09	9:27	9:36	9:53	9:59	10:11	10:30
8:58	9:21	9:39	9:48	10:05	10:10	10:22	10:41
9:12	9:35	9:53	10:02	10:18	10:23	10:35	10:54
9:25	9:48	10:06	10:15	10:31	10:36	10:48	11:07
9:38	10:01	10:19	10:28	10:44	10:49	11:01	11:20
9:51	10:14	10:32	10:41	10:57	11:02	11:13	11:32
10:05	10:28	10:46	10:55	11:11	11:16	11:27	11:46
10:21	10:44	11:02	11:10	11:26	11:31	11:41	11:59
10:37	11:00	11:17	11:25	11:41	11:46	11:56	12:15A
10:52	11:15	11:32	11:40	11:56	12:01A	12:11A	12:29
11:09	11:32	11:48	11:56	12:11A	12:16	12:26	12:43
11:25	11:47	12:03A	12:11A	12:26	12:31	12:40	12:57
11:41	12:03A	12:19	12:27	12:41	12:46	12:55	1:12
11:59	12:19	12:35	12:42	12:56	1:01	1:10	1:27
12:16A	12:35	12:50	12:57	1:11	1:16	1:25	1:42
12:31	12:50	1:05	1:12	1:26	1:31	1:40	1:57
12:46	1:05	1:20	1:27	1:41	1:46	1:55	2:11
1:01	1:20	1:35	1:42	1:56	2:01	2:09	2:25
1:18	1:37	1:52	1:59	2:12	2:17	2:25	2:41
1:38	1:57	2:12	2:19	2:32	2:37	2:45	3:01
1:59	2:17	2:32	2:39	2:52	2:57	3:05	3:21
2:24	2:42	2:57	3:04	3:17	3:22	3:30	3:46
2:49	3:07	3:22	3:29	3:42	3:47	3:55	4:11
3:16	3:34	3:48	3:54	4:07	4:12	4:20	4:36
3:48	4:06	4:19	4:25	4:37	4:42	4:50	5:06
4:18	4:36	4:49	4:55	5:07	5:12	5:20	5:36

Westbound *Al Oeste* (Approximate Times / Tiempos Aproximados)

LOS ANGELES 8 Venice & Broadway	ECHO PARK 7 Sunset & Echo Park	LOS ANGELES 6 Santa Monica / Vermont Station	5 Santa Monica & Western	WEST HOLLYWOOD 4 Santa Monica & Fairfax	3 Santa Monica & San Vicente	WEST LOS ANGELES 2 Santa Monica & Westwood C	SANTA MONICA 1 6th & Santa Monica
4:08A	4:23A	4:32A	4:36A	4:47A	4:53A	5:05A	5:25A
4:33	4:48	4:57	5:01	5:12	5:18	5:30	5:51
4:51	5:08	5:18	5:23	5:35	5:41	5:54	6:16
5:12	5:29	5:39	5:44	5:57	6:04	6:19	6:41
5:27	5:45	5:55	6:00	6:14	6:21	6:36	6:59
5:38	5:56	6:07	6:12	6:26	6:33	6:50	—
5:48	6:06	6:17	6:22	6:36	6:43	6:59	7:23
5:58	6:16	6:27	6:32	6:47	6:54	7:12	—
6:07	6:25	6:36	6:42	6:57	7:05	7:13	7:38
6:16	6:34	6:46	6:52	7:07	7:15	7:35	—
6:25	6:44	6:56	7:02	7:18	7:26	7:40	8:06
6:35	6:54	7:06	7:12	7:28	7:36	7:58	—
6:44	7:03	7:16	7:22	7:39	7:47	8:07	8:33
6:53	7:13	7:26	7:32	7:50	7:58	8:20	—
7:01	7:22	7:35	7:42	8:00	8:09	8:30	8:56
7:10	7:31	7:45	7:52	8:10	8:19	8:41	—
7:20	7:41	7:55	8:02	8:20	8:29	8:50	9:16
7:30	7:51	8:05	8:12	8:30	8:39	9:01	—
7:40	8:01	8:15	8:22	8:40	8:49	9:10	9:37
7:49	8:11	8:25	8:32	8:50	8:59	9:21	—
7:58	8:21	8:35	8:42	9:00	9:10	9:31	9:58
8:08	8:31	8:45	8:52	9:10	9:20	9:42	—
8:18	8:41	8:55	9:02	9:20	9:30	9:51	10:19
8:28	8:51	9:05	9:12	9:30	9:40	10:02	—
8:37	9:00	9:15	9:22	9:41	9:51	10:11	10:39
8:47	9:10	9:25	9:32	9:51	10:01	10:23	—
8:57	9:20	9:35	9:42	10:01	10:11	10:31	11:00
9:07	9:30	9:45	9:52	10:12	10:22	10:45	—
9:17	9:40	9:55	10:02	10:22	10:32	10:52	11:22
9:27	9:50	10:05	10:12	10:32	10:42	11:05	—
9:37	10:00	10:15	10:22	10:42	10:52	11:12	11:43
9:47	10:10	10:25	10:32	10:52	11:02	11:25	—
9:56	10:20	10:35	10:42	11:02	11:12	11:32	12:03P
10:06	10:30	10:45	10:52	11:12	11:22	11:46	—
10:16	10:40	10:55	11:02	11:22	11:32	11:53	12:24
10:26	10:50	11:05	11:12	11:32	11:43	12:07P	—
10:35	10:59	11:15	11:22	11:43	11:54	12:15	12:46
10:44	11:09	11:25	11:32	11:53	12:04P	12:28	—
10:52	11:18	11:34	11:42	12:03P	12:14	12:35	1:06
11:01	11:27	11:44	11:52	12:13	12:24	12:48	—
11:11	11:37	11:54	12:02P	12:23	12:34	12:55	1:26
11:21	11:47	12:04P	12:12	12:33	12:44	1:08	—
11:31	11:57	12:14	12:22	12:43	12:54	1:15	1:46
11:41	12:07P	12:24	12:32	12:53	1:04	1:28	—
11:51	12:17	12:34	12:42	1:03	1:14	1:35	2:07
11:59	12:26	12:44	12:52	1:13	1:24	1:48	—
12:09P	12:36	12:54	1:02	1:23	1:34	1:56	2:28
12:19	12:46	1:04	1:12	1:33	1:44	2:08	—
12:29	12:56	1:14	1:22	1:43	1:54	2:17	2:49
12:39	1:06	1:24	1:32	1:53	2:04	2:28	—
12:49	1:16	1:34	1:42	2:03	2:14	2:37	3:10
12:59	1:26	1:44	1:52	2:13	2:24	2:48	—
1:09	1:36	1:54	2:02	2:23	2:34	2:57	3:30
1:19	1:46	2:04	2:12	2:33	2:44	3:08	—
1:28	1:56	2:14	2:22	2:43	2:54	3:17	3:50
1:38	2:06	2:24	2:32	2:53	3:04	3:28	—
1:48	2:16	2:34	2:42	3:03	3:14	3:37	4:10
1:58	2:26	2:44	2:52	3:13	3:24	3:48	—
2:08	2:36	2:54	3:02	3:23	3:34	3:57	4:30
2:18	2:46	3:04	3:12	3:33	3:44	4:08	—
2:28	2:56	3:14	3:22	3:43	3:54	4:17	4:50
2:38	3:06	3:24	3:32	3:53	4:04	4:28	—
2:48	3:16	3:34	3:42	4:03	4:14	4:37	5:08
2:59	3:26	3:44	3:52	4:12	4:23	4:47	—
3:09	3:36	3:54	4:02	4:22	4:33	4:56	5:27
3:19	3:46	4:04	4:12	4:32	4:43	5:07	—
3:29	3:56	4:14	4:22	4:42	4:53	5:16	5:47
3:39	4:06	4:24	4:32	4:52	5:03	5:27	—
3:49	4:16	4:34	4:42	5:02	5:13	5:36	6:06
4:00	4:26	4:44	4:52	5:12	5:23	5:45	6:15
4:10	4:36	4:54	5:02	5:22	5:33	5:55	6:24
4:20	4:46	5:04	5:12	5:32	5:43	6:07	—
4:31	4:57	5:14	5:22	5:41	5:52	6:13	6:41
4:41	5:07	5:24	5:32	5:51	6:02	6:26	—
4:52	5:18	5:35	5:42	6:01	6:11	6:32	6:59
5:03	5:29	5:46	5:53	6:12	6:22	6:42	7:09
5:15	5:40	5:57	6:04	6:23	6:33	6:52	7:19
5:27	5:52	6:08	6:15	6:34	6:44	7:03	7:30
5:39	6:04	6:20	6:27	6:45	6:55	7:13	7:40
5:51	6:16	6:32	6:39	6:57	7:07	7:25	7:51
6:03	6:28	6:44	6:51	7:09	7:19	7:37	8:03
6:15	6:40	6:56	7:03	7:20	7:30	7:47	8:12
6:28	6:52	7:08	7:15	7:32	7:41	7:58	8:22
6:40	7:04	7:20	7:27	7:44	7:53	8:10	8:34
6:53	7:17	7:33	7:39	7:56	8:05	8:22	8:46
7:06	7:30	7:45	7:51	8:08	8:17	8:34	8:58
7:18	7:42	7:57	8:03	8:19	8:28	8:45	9:08
7:31	7:54	8:09	8:15	8:31	8:40	8:57	9:20
7:43	8:06	8:21	8:27	8:43	8:52	9:08	9:31
7:55	8:18	8:33	8:39	8:55	9:04	9:20	9:43
8:07	8:30	8:45	8:51	9:07	9:15	9:31	9:53
8:19	8:42	8:57	9:03	9:19	9:27	9:43	10:05
8:31	8:54	9:09	9:15	9:31	9:39	9:55	10:16
8:43	9:06	9:21	9:27	9:42	9:50	10:06	10:27
8:58	9:19	9:34	9:39	9:54	10:02	10:18	10:39
9:12	9:32	9:46	9:51	10:06	10:14	10:30	10:51
9:26	9:46	10:00	10:05	10:20	10:28	10:44	11:05
9:42	10:02	10:15	10:20	10:35	10:43	10:59	11:20
9:57	10:17	10:30	10:35	10:50	10:58	11:14	11:35
10:12	10:32	10:45	10:50	11:05	11:13	11:29	11:50
10:28	10:48	11:01	11:05	11:20	11:28	11:43	12:04A
10:46	11:06	11:18	11:22	11:37	11:45	11:59	12:20
D 11:07	11:25	11:36	11:40	11:54	12:02A	12:16A	12:36
11:25	11:44	11:55	11:59	12:12A	12:20	12:34	12:53
11:45	12:04A	12:15A	12:19A	12:32	12:39	12:52	1:11
D 12:06A	12:24	12:35	12:39	12:51	12:58	1:11	1:30
12:26	12:44	12:55	12:59	1:11	1:18	1:31	1:50
12:46	1:04	1:15	1:19	1:31	1:38	1:51	2:10
D 1:07	1:25	1:35	1:39	1:51	1:58	2:11	2:30
1:36	1:54	2:04	2:08	2:20	2:27	2:40	2:59
D 2:06	2:24	2:34	2:38	2:49	2:56	3:08	3:27
2:36	2:54	3:04	3:08	3:19	3:25	3:37	3:56
D 3:06	3:24	3:34	3:38	3:49	3:55	4:07	4:26
3:39	3:55	4:04	4:08	4:19	4:25	4:37	4:55

Saturday, Sunday and Holiday Schedules

Saturday, Sunday & Holiday schedule in effect on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Horarios de sábado, domingo y días feriados

Horarios de sábado, domingo y días feriados en vigor para New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day.

Special Notes

- **B** Trips shown originating at Santa Monica & Westwood begin service from Nebraska & Sepulveda 5 - 9 minutes before time shown.
- **C** Trips shown terminating at Santa Monica & Westwood continue to Nebraska & Sepulveda arriving approximately 2 - 5 minutes after time shown.
- **D** Waits at Broadway & 7th for transfer connection.

Avisos especiales

- **B** *Los viajes que se muestran originándose en Santa Mónica y Westwood empiezan el servicio desde Nebraska y Sepulveda 5 - 9 minutos antes de la hora mostrada.*
- **C** *Los viajes que se muestran terminando en Santa Mónica y Westwood continúan hacia Nebraska & Sepulveda llegando a aproximadamente 2 - 5 minutos después de la hora mostrada.*
- **D** *Espera en Broadway y 7th para las conexione de transferencia.*

Need information?

Transit Information: 323.466.3876
Customer Relations: 213.922.6235
In an Emergency: 1.888.950.7233 or 911

And for all you need to know, visit *metro.net*.

Connect to Metro Security 24/7.

Call: 888.950.7233
Text: 213.788.2777
App: LA Metro Transit Watch

Call 911 for emergencies.

Effective Jun 26 2022

Metro Local

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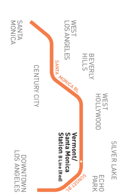
Eastbound to Downtown Los Angeles
Westbound to Santa Monica
via Santa Monica Bl & Sunset Bl

metro.net 323.GO.METRO
Travel Info 511
Wheelchair Hotline 800.621.7828
California Relay Service 711



Metro

Subject to change without notice
Sujeto a cambios sin previo aviso

Saturday, Sunday and Holiday Schedule

Effective Jun 26 2022

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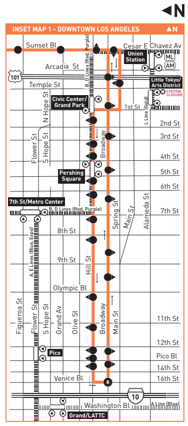
Eastbound *Al Este* (Approximate Times / Tiempos Aproximados)

Santa Monica	West Los Angeles	West Hollywood		Los Angeles		Echo Park	Los Angeles
1 6th & Santa Monica	2 Santa Monica & Westwood B	3 Santa Monica & San Vicente	4 Santa Monica & Fairfax	5 Santa Monica & Western	6 Santa Monica / Vermont Station	7 Sunset & Echo Park	8 Venice & Broadway
4:42A	5:00A	5:13A	5:19A	5:32A	5:37A	5:47A	6:07A
5:07	5:25	5:38	5:44	5:57	6:02	6:12	6:32
5:28	5:46	5:59	6:05	6:19	6:24	6:34	6:54
5:50	6:09	6:22	6:28	6:42	6:47	6:58	7:19
6:10	6:29	6:42	6:48	7:02	7:07	7:19	7:40
6:26	6:45	6:58	7:05	7:20	7:25	7:37	7:58
6:40	6:59	7:14	7:21	7:36	7:41	7:53	8:14
6:53	7:12	7:27	7:34	7:49	7:54	8:06	8:27
7:05	7:24	7:39	7:46	8:01	8:06	8:18	8:39
—	7:36	7:51	7:58	8:13	8:18	8:30	8:51
7:28	7:48	8:03	8:10	8:25	8:30	8:43	9:04
—	8:00	8:15	8:22	8:37	8:43	8:56	9:18
7:51	8:12	8:27	8:34	8:49	8:55	9:09	9:31
—	8:23	8:39	8:46	9:01	9:07	9:21	9:43
8:11	8:34	8:50	8:57	9:13	9:19	9:33	9:55
—	8:46	9:02	9:09	9:25	9:31	9:45	10:07
8:33	8:57	9:14	9:21	9:37	9:43	9:57	10:19
—	9:08	9:25	9:32	9:49	9:55	10:09	10:31
8:55	9:19	9:36	9:44	10:01	10:07	10:21	10:44
—	9:29	9:47	9:55	10:13	10:19	10:33	10:56
9:16	9:40	9:58	10:07	10:25	10:31	10:47	11:10
—	9:52	10:10	10:19	10:37	10:43	10:59	11:23
9:40	10:04	10:22	10:31	10:49	10:55	11:12	11:36
—	10:16	10:34	10:43	11:01	11:07	11:24	11:48
10:04	10:28	10:46	10:55	11:13	11:19	11:36	11:59
—	10:40	10:58	11:07	11:25	11:31	11:48	12:12P
10:27	10:52	11:10	11:19	11:37	11:43	11:59	12:24
—	11:04	11:22	11:31	11:49	11:55	12:12P	12:36
10:49	11:15	11:33	11:43	12:01P	12:07P	12:24	12:48
—	11:25	11:44	11:54	12:13	12:19	12:36	1:00
11:10	11:36	11:55	12:05P	12:25	12:31	12:48	1:12
—	11:47	12:06P	12:17	12:37	12:43	1:00	1:24
11:30	11:58	12:18	12:29	12:49	12:55	1:13	1:37
—	12:10P	12:30	12:41	1:01	1:07	1:25	1:49
11:52	12:21	12:42	12:53	1:13	1:19	1:37	2:01
—	12:33	12:54	1:05	1:25	1:31	1:49	2:13
12:16P	12:45	1:06	1:17	1:37	1:43	2:01	2:25
—	12:57	1:18	1:29	1:49	1:55	2:13	2:37
12:40	1:09	1:30	1:41	2:01	2:07	2:25	2:49
—	1:20	1:41	1:52	2:13	2:19	2:37	3:01
1:03	1:32	1:53	2:04	2:25	2:31	2:49	3:12
—	1:44	2:05	2:16	2:37	2:43	3:01	3:24
1:27	1:56	2:17	2:28	2:49	2:55	3:13	3:36
—	2:08	2:29	2:40	3:01	3:07	3:25	3:48
1:51	2:20	2:41	2:52	3:13	3:19	3:37	4:00
—	2:31	2:53	3:04	3:25	3:31	3:49	4:12
2:15	2:43	3:05	3:16	3:37	3:43	4:01	4:24
—	2:55	3:17	3:28	3:49	3:55	4:13	4:36
2:39	3:07	3:29	3:40	4:01	4:07	4:25	4:48
—	3:19	3:41	3:52	4:13	4:19	4:37	5:00
3:02	3:30	3:53	4:04	4:25	4:31	4:49	5:12
—	3:42	4:05	4:16	4:37	4:43	5:01	5:24
3:26	3:54	4:17	4:28	4:49	4:55	5:13	5:36
—	4:06	4:29	4:40	5:01	5:07	5:25	5:48
3:51	4:18	4:41	4:52	5:13	5:19	5:37	6:00
—	4:30	4:53	5:04	5:25	5:31	5:48	6:11
4:15	4:42	5:05	5:16	5:37	5:43	6:00	6:23
—	4:54	5:17	5:28	5:49	5:55	6:11	6:34
4:39	5:06	5:29	5:40	6:01	6:07	6:23	6:45
—	5:19	5:42	5:53	6:13	6:19	6:35	6:57
5:05	5:32	5:55	6:05	6:25	6:31	6:47	7:09
—	5:44	6:07	6:17	6:37	6:43	6:59	7:21
5:29	5:56	6:19	6:29	6:49	6:55	7:10	7:32
—	6:08	6:31	6:41	7:01	7:07	7:22	7:43
5:55	6:22	6:44	6:54	7:13	7:19	7:34	7:54
—	6:35	6:57	7:06	7:25	7:31	7:45	8:05
6:21	6:47	7:09	7:18	7:37	7:43	7:57	8:17
—	7:01	7:22	7:31	7:49	7:55	8:08	8:28
6:47	7:13	7:34	7:43	8:01	8:07	8:20	8:40
—	7:27	7:47	7:56	8:13	8:19	8:32	8:52
7:14	7:39	7:59	8:08	8:25	8:31	8:44	9:04
—	7:52	8:11	8:20	8:37	8:43	8:56	9:16
7:40	8:05	8:24	8:33	8:49	8:55	9:07	9:27
—	8:17	8:36	8:45	9:01	9:06	9:18	9:38
8:06	8:30	8:48	8:57	9:13	9:18	9:30	9:50
—	8:42	9:00	9:09	9:25	9:30	9:42	10:02
8:30	8:54	9:12	9:21	9:37	9:42	9:54	10:13
—	9:06	9:24	9:33	9:49	9:54	10:06	10:25
8:55	9:18	9:36	9:45	10:01	10:06	10:18	10:37
—	9:32	9:50	9:59	10:15	10:20	10:32	10:51
9:23	9:46	10:04	10:13	10:29	10:34	10:46	11:05
—	10:00	10:18	10:27	10:43	10:48	11:00	11:19
9:51	10:14	10:32	10:41	10:57	11:02	11:13	11:32
—	10:28	10:46	10:55	11:11	11:16	11:27	11:46
10:21	10:44	11:02	11:10	11:26	11:31	11:41	11:59
10:37	11:00	11:17	11:25	11:41	11:46	11:56	12:15A
10:52	11:15	11:32	11:40	11:56	12:01A	12:11A	12:29
11:09	11:32	11:48	11:56	12:11A	12:16	12:26	12:43
11:25	11:47	12:03A	12:11A	12:26	12:31	12:40	12:57
11:41	12:03A	12:19	12:27	12:41	12:46	12:55	1:12
11:59	12:19	12:35	12:42	12:56	1:01	1:10	1:27
12:16A	12:35	12:50	12:57	1:11	1:16	1:25	1:42
12:31	12:50	1:05	1:12	1:26	1:31	1:40	1:57
12:46	1:05	1:20	1:27	1:41	1:46	1:55	2:11
1:01	1:20	1:35	1:42	1:56	2:01	2:09	2:25
1:18	1:37	1:52	1:59	2:12	2:17	2:25	2:41
1:38	1:57	2:12	2:19	2:32	2:37	2:45	3:01
1:59	2:17	2:32	2:39	2:52	2:57	3:05	3:21
2:24	2:42	2:57	3:04	3:17	3:22	3:30	3:46
2:49	3:07	3:22	3:29	3:42	3:47	3:55	4:11
3:16	3:34	3:48	3:54	4:07	4:12	4:20	4:36
3:48	4:06	4:19	4:25	4:37	4:42	4:50	5:06
4:18	4:36	4:49	4:55	5:07	5:12	5:20	5:36

Westbound *Al Oeste* (Approximate Times / Tiempos Aproximados)

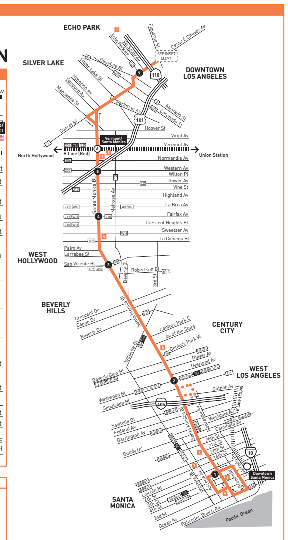
Los Angeles	Echo Park	Los Angeles		West Hollywood		West Los Angeles	Santa Monica
8 Venice & Broadway	7 Sunset & Echo Park	6 Santa Monica / Vermont Station	5 Santa Monica & Western	4 Santa Monica & Fairfax	3 Santa Monica & San Vicente	2 Santa Monica & Westwood C	1 6th & Santa Monica
4:08A	4:23A	4:32A	4:36A	4:47A	4:53A	5:05A	5:23A
4:33	4:48	4:57	5:01	5:12	5:18	5:30	5:48
4:53	5:10	5:20	5:25	5:36	5:42	5:54	6:12
5:17	5:34	5:44	5:49	6:00	6:06	6:19	6:37
5:39	5:57	6:07	6:12	6:23	6:29	6:43	7:03
5:56	6:14	6:24	6:29	6:41	6:47	7:01	7:21
6:07	6:25	6:36	6:41	6:53	6:59	7:16	—
6:18	6:37	6:48	6:53	7:05	7:12	7:28	7:49
6:30	6:49	7:00	7:05	7:18	7:25	7:42	—
6:41	7:00	7:12	7:17	7:30	7:37	7:53	8:15
6:53	7:12	7:24	7:29	7:42	7:49	8:06	—
7:05	7:24	7:36	7:41	7:54	8:01	8:18	8:40
7:17	7:36	7:48	7:53	8:06	8:13	8:31	—
7:28	7:48	8:00	8:05	8:19	8:26	8:43	9:05
7:40	8:00	8:12	8:17	8:31	8:39	8:57	—
7:51	8:12	8:24	8:29	8:45	8:53	9:10	9:32
8:02	8:23	8:35	8:41	8:57	9:05	9:24	—
8:13	8:34	8:47	8:53	9:09	9:17	9:34	9:58
8:25	8:46	8:59	9:05	9:21	9:29	9:49	—
8:36	8:57	9:11	9:17	9:33	9:42	9:59	10:23
8:48	9:09	9:23	9:29	9:46	9:55	10:15	—
8:59	9:20	9:34	9:41	9:58	10:07	10:25	10:50
9:10	9:31	9:46	9:53	10:11	10:20	10:40	—
9:21	9:43	9:58	10:05	10:23	10:32	10:50	11:15
9:32	9:54	10:10	10:17	10:35	10:44	11:04	—
9:43	10:06	10:22	10:29	10:47	10:56	11:14	11:39
9:54	10:18	10:34	10:41	10:59	11:08	11:28	—
10:05	10:29	10:46	10:53	11:11	11:20	11:38	12:05P
10:17	10:41	10:58	11:05	11:23	11:32	11:52	—
10:27	10:52	11:10	11:17	11:35	11:44	12:03P	12:30
10:39	11:04	11:22	11:29	11:47	11:56	12:18	—
10:50	11:16	11:34	11:41	11:59	12:08P	12:29	12:56
11:02	11:28	11:46	11:53	12:12P	12:21	12:43	—
11:13	11:39	11:57	12:05P	12:24	12:33	12:54	1:22
11:25	11:51	12:09P	12:17	12:36	12:45	1:07	—
11:37	12:03P	12:21	12:29	12:48	12:57	1:18	1:46
11:49	12:15	12:33	12:41	1:00	1:10	1:32	—
12:01P	12:27	12:45	12:53	1:13	1:23	1:44	2:12
12:13	12:39	12:57	1:05	1:25	1:36	1:59	—
12:26	12:52	1:09	1:17	1:37	1:48	2:09	2:37
12:38	1:04	1:21	1:29	1:49	2:00	2:23	—
12:50	1:16	1:33	1:41	2:01	2:12	2:34	3:02
1:02	1:28	1:45	1:53	2:13	2:24	2:47	—
1:14	1:40	1:57	2:05	2:25	2:36	2:58	3:26
1:26	1:52	2:09	2:17	2:37	2:48	3:11	—
1:38	2:04	2:21	2:29	2:49	3:00	3:22	3:50
1:50	2:16	2:33	2:41	3:01	3:12	3:35	—
2:02	2:28	2:45	2:53	3:12	3:23	3:45	4:13
2:14	2:40	2:57	3:05	3:24	3:35	3:58	—
2:26	2:52	3:09	3:17	3:36	3:47	4:09	4:36
2:38	3:04	3:21	3:29	3:48	3:59	4:21	—
2:51	3:17	3:34	3:41	4:00	4:11	4:33	5:00
3:03	3:29	3:46	3:53	4:12	4:23	4:45	—
3:15	3:41	3:58	4:05	4:24	4:35	4:56	5:22
3:27	3:53	4:10	4:17	4:36	4:46	5:08	—
3:39	4:05	4:22	4:29	4:47	4:57	5:17	5:43
3:51	4:17	4:34	4:41	4:59	5:09	5:31	—
4:03	4:29	4:46	4:53	5:11	5:21	5:41	6:07
4:15	4:41	4:58	5:05	5:23	5:33	5:55	—
4:27	4:53	5:10	5:17	5:35	5:45	6:05	6:30
4:39	5:05	5:22	5:29	5:47	5:57	6:19	—
4:52	5:17	5:34	5:41	5:59	6:09	6:28	6:52
5:04	5:29	5:46	5:53	6:10	6:20	6:41	—
5:16	5:41	5:58	6:05	6:22	6:32	6:51	7:15
5:29	5:54	6:10	6:17	6:34	6:44	7:04	—
5:42	6:06	6:22	6:29	6:46	6:56	7:15	7:39
5:54	6:18	6:34	6:41	6:58	7:08	7:28	—
6:06	6:30	6:46	6:53	7:10	7:20	7:38	8:02
6:18	6:42	6:58	7:05	7:22	7:32	7:51	—
6:31	6:54	7:10	7:17	7:34	7:43	8:00	8:23
6:43	7:06	7:22	7:29	7:45	7:54	8:13	—
6:56	7:19	7:35	7:42	7:58	8:06	8:22	8:45
7:11	7:34	7:49	7:56	8:12	8:20	8:39	—
7:27	7:49	8:04	8:10	8:26	8:34	8:50	9:13
7:41	8:03	8:18	8:24	8:40	8:48	9:06	—
7:56	8:17	8:32	8:38	8:54	9:02	9:18	9:41
8:10	8:31	8:46	8:52	9:08	9:16	9:33	—
8:24	8:45	9:00	9:06	9:22	9:30	9:46	10:08
8:38	8:59	9:14	9:20	9:36	9:44	10:01	—
8:54	9:15	9:30	9:35	9:50	9:58	10:14	10:35
9:10	9:31	9:45	9:50	10:05	10:13	10:29	10:50
9:26	9:46	10:00	10:05	10:20	10:28	10:44	11:05
9:42	10:02	10:15	10:20	10:35	10:43	10:59	11:20
9:57	10:17	10:30	10:35	10:50	10:58	11:14	11:35
10:12	10:32	10:45	10:50	11:05	11:13	11:29	11:50
10:27	10:47	11:00	11:05	11:20	11:28	11:43	12:04A
10:45	11:05	11:17	11:22	11:37	11:45	11:59	12:20
D 11:07	11:25	11:36	11:40	11:54	12:02A	12:16A	12:36
11:25	11:44	11:55	11:59	12:12A	12:20	12:34	12:53
11:45	12:04A	12:15A	12:19A	12:32	12:39	12:52	1:11
D 12:06A	12:24	12:35	12:39	12:51	12:58	1:11	1:30
12:26	12:44	12:55	12:59	1:11	1:18	1:31	1:50
12:46	1:04	1:15	1:19	1:31	1:38	1:51	2:10
D 1:07	1:25	1:35	1:39	1:51	1:58	2:11	2:30
1:36	1:54	2:04	2:08	2:20	2:27	2:40	2:59
D 2:06	2:24	2:34	2:38	2:49	2:56	3:08	3:27
2:36	2:54	3:04	3:08	3:19	3:25	3:37	3:56
D 3:06	3:24	3:34	3:38	3:49	3:55	4:07	4:26
3:39	3:55	4:04	4:08	4:19	4:25	4:37	4:55

ROUTE MAP



INSET 1 – DOWNTOWN LOS ANGELES

- Line 4 Route
- Local Stop Timepoint
- Local Stop Timepoint - Single Direction Only
- Metro Rail Station
- Metro Rail Station Entrance
- ML Metrolink
- AM Amtrak



MAP NOTES

1. Dodger Stadium
2. Braille Institute
3. LA City College
4. West Hollywood City Hall
5. Westfield Century City
   Metro 4, 28; AV786;
   BBB5; C3, CE534, 573; SC792, 797
6. St. John's Hospital
7. Santa Monica-UCLA Medical Center
8. Santa Monica Bl & 4th St/ Broadway & 4th St
   Metro 4, 20 Owl, 534, 720;
   BBB1, 2, 3, 5, 7, 8, 9, 18; Rapid 7, 10
9. Ocean Av & Santa Monica Bl
   Metro 534; BBB8

LEGEND

- Line 4 Route
- Shortline Turnaround Loop at Nebraska & Sepulveda
- Local Stop
- Local Stop - Single Direction Only
- Metro Rail Station & Timepoint
- Metro Rail
- Metro Rail Station
- AV Antelope Valley Transit Authority
- BBB Santa Monica's Big Blue Bus
- C Culver CityBus
- CE LADOT Commuter Express
- LD LADOT DASH
- SC Santa Clarita Transit
- WH West Hollywood Cityline

150903

Monday through Friday

Effective Jun 26 2022

207

Northbound (Approximate Times)

HAWTHORNE ① Crenshaw Station	ATHENS ② Western & Imperial	LOS ANGELES ③ Western & Manchester	LOS ANGELES ④ Expo/Western Station	KOREATOWN ⑤ Wilshire & Western Station	HOLLYWOOD ⑥ Hollywood & Western D
—	4:07A	4:13A	4:27A	4:40A	4:57A
—	4:35	4:41	4:55	5:08	5:25
—	4:57	5:04	5:18	5:31	5:48
—	5:15	5:22	5:38	5:51	6:10
—	5:28	5:35	5:52	6:06	6:27
5:31A	5:36	5:43	6:00	6:16	6:37
—	5:41	5:48	6:06	6:22	6:43
—	5:47	5:54	6:12	6:28	6:50
5:47	5:52	5:59	6:18	6:34	6:56
—	5:57	6:04	6:23	6:40	7:02
—	6:02	6:10	6:29	6:46	7:08
6:03	6:08	6:16	6:35	6:52	7:15
—	6:14	6:22	6:41	6:58	7:21
—	6:20	6:28	6:47	7:04	7:27
6:20	6:25	6:33	6:52	7:10	7:33
6:26	6:31	6:39	6:58	7:16	7:39
—	6:37	6:45	7:04	7:22	7:45
6:37	6:42	6:50	7:10	7:28	7:51
—	6:47	6:55	7:16	7:34	7:57
—	6:53	7:01	7:22	7:40	8:04
6:54	6:59	7:07	7:28	7:46	8:10
7:00	7:05	7:13	7:34	7:52	8:17
—	7:11	7:19	7:40	7:58	8:23
7:12	7:17	7:25	7:46	8:04	8:29
7:17	7:22	7:30	7:51	8:10	8:35
—	7:28	7:36	7:57	8:16	8:41
7:29	7:34	7:42	8:03	8:22	8:47
—	7:40	7:48	8:09	8:28	8:53
7:42	7:47	7:55	8:16	8:35	9:00
7:52	7:57	8:05	8:26	8:45	9:11
—	8:07	8:15	8:36	8:55	9:21
—	8:17	8:25	8:46	9:05	9:31
8:20	8:26	8:34	8:55	9:15	9:41
—	8:36	8:44	9:05	9:25	9:51
8:40	8:46	8:54	9:15	9:35	10:01
—	8:55	9:04	9:25	9:45	10:11
8:58	9:04	9:13	9:34	9:55	10:22
—	9:14	9:23	9:44	10:05	10:32
9:17	9:23	9:32	9:54	10:15	10:42
—	9:32	9:42	10:04	10:25	10:52
9:36	9:42	9:52	10:14	10:35	11:02
—	9:51	10:01	10:24	10:45	11:12
9:55	10:01	10:11	10:34	10:55	11:23
—	10:11	10:21	10:44	11:05	11:33
10:14	10:20	10:30	10:53	11:15	11:43
—	10:30	10:40	11:03	11:25	11:53
10:33	10:39	10:49	11:13	11:35	12:03P
—	10:50	11:00	11:23	11:45	12:13
10:54	11:00	11:10	11:33	11:55	12:24
—	11:10	11:20	11:43	12:05P	12:34
11:13	11:19	11:29	11:52	12:15	12:44
—	11:29	11:39	12:02P	12:25	12:54
11:33	11:39	11:49	12:12	12:35	1:04
—	11:49	11:59	12:22	12:45	1:14
11:53	11:59	12:09P	12:32	12:55	1:24
—	12:09P	12:19	12:42	1:05	1:34
12:11P	12:17	12:27	12:51	1:15	1:44
—	12:27	12:37	1:01	1:25	1:55
—	12:36	12:46	1:11	1:35	2:05
12:39	12:46	12:56	1:21	1:45	2:15
12:49	12:56	1:06	1:31	1:55	2:25
—	1:06	1:16	1:41	2:05	2:35
1:09	1:16	1:26	1:51	2:15	2:45
—	1:25	1:36	2:01	2:25	2:55
1:28	1:35	1:46	2:11	2:35	3:05
—	1:45	1:56	2:21	2:45	3:15
1:48	1:55	2:06	2:31	2:55	3:25
—	2:01	2:12	2:37	3:01	3:31
2:00	2:07	2:18	2:43	3:07	3:37
—	2:13	2:24	2:49	3:13	3:43
2:12	2:19	2:30	2:55	3:19	3:49
2:18	2:25	2:36	3:01	3:25	3:55
—	2:31	2:42	3:07	3:31	4:01
2:30	2:37	2:48	3:13	3:37	4:08
—	2:43	2:54	3:19	3:43	4:14
2:42	2:49	3:00	3:25	3:49	4:20
—	2:55	3:06	3:31	3:55	4:26
2:54	3:01	3:12	3:37	4:01	4:32
3:00	3:07	3:18	3:43	4:07	4:38
—	3:13	3:24	3:49	4:13	4:44
3:12	3:19	3:30	3:55	4:19	4:50
—	3:25	3:36	4:01	4:25	4:55
3:25	3:32	3:43	4:07	4:31	5:01
3:31	3:38	3:49	4:13	4:37	5:07
—	3:44	3:55	4:19	4:43	5:13
—	3:50	4:01	4:25	4:49	5:19
3:51	3:58	4:08	4:32	4:55	5:25
3:58	4:05	4:15	4:38	5:01	5:31
—	4:11	4:21	4:44	5:07	5:37
4:10	4:17	4:27	4:50	5:13	5:43
4:16	4:23	4:33	4:56	5:19	5:49
—	4:29	4:39	5:02	5:25	5:55
4:28	4:35	4:45	5:08	5:31	6:01
4:34	4:41	4:51	5:14	5:37	6:06
—	4:47	4:57	5:20	5:43	6:12
4:46	4:53	5:03	5:26	5:49	6:18
4:52	4:59	5:09	5:32	5:55	6:23
—	5:07	5:17	5:40	6:03	6:31
5:10	5:16	5:26	5:49	6:11	6:39
—	5:24	5:34	5:57	6:19	6:47
5:27	5:33	5:43	6:05	6:27	6:55
5:35	5:41	5:51	6:13	6:35	7:03
—	5:50	6:00	6:21	6:43	7:11
5:53	5:59	6:08	6:29	6:51	7:18
—	6:10	6:19	6:40	7:02	7:29
6:17	6:23	6:32	6:53	7:14	7:41
6:29	6:35	6:44	7:05	7:26	7:53
—	6:48	6:57	7:17	7:38	8:04
6:54	7:00	7:09	7:29	7:50	8:15
—	7:12	7:21	7:41	8:02	8:26
7:20	7:26	7:35	7:55	8:14	8:38
—	7:41	7:50	8:10	8:29	8:53
7:55	8:00	8:08	8:28	8:45	9:09
—	8:21	8:29	8:48	9:05	9:28
8:37	8:42	8:50	9:08	9:25	9:46
—	9:04	9:11	9:29	9:45	10:06
9:21	9:26	9:33	9:50	10:05	10:26
—	9:47	9:54	10:10	10:25	10:46
10:02	10:07	10:14	10:30	10:45	11:04
—	10:28	10:35	10:51	11:05	11:24
10:48	10:53	11:00	11:16	11:30	11:49
—	11:18	11:25	11:41	11:55	12:13A
11:39	11:44	11:51	12:07A	12:20A	12:38
—	12:13A	12:19A	12:35	12:48	1:05
12:35A	12:40	12:46	1:01	1:14	1:31
—	1:08	1:14	1:29	1:42	1:59
—	2:08	2:14	2:29	2:41	2:58
—	3:08	3:14	3:28	3:40	3:56

Southbound (Approximate Times)

HOLLYWOOD ⑦ Western & Franklin	KOREATOWN ⑤ Wilshire & Western Station	LOS ANGELES ④ Expo/Western Station	LOS ANGELES ③ Western & Manchester	ATHENS ② Western & Imperial	HAWTHORNE ① Crenshaw Station
4:54A	5:10A	5:24A	5:40A	5:48A	—
5:05	5:22	5:36	5:52	6:00	—
5:17	5:34	5:48	6:04	6:12	—
5:29	5:46	6:00	6:17	6:24	6:27A
5:39	5:56	6:11	6:28	6:36	—
5:48	6:06	6:21	6:38	6:46	—
5:54	6:12	6:27	6:44	6:52	6:55
6:00	6:18	6:33	6:50	6:58	7:01
6:06	6:24	6:39	6:56	7:04	—
6:12	6:30	6:45	7:02	7:10	7:13
6:18	6:36	6:51	7:09	7:17	7:20
6:24	6:42	6:57	7:16	7:24	—
6:30	6:48	7:04	7:23	7:31	7:34
6:36	6:54	7:10	7:29	7:37	7:40
6:42	7:00	7:17	7:37	7:46	—
6:47	7:06	7:23	7:44	7:52	7:55
6:53	7:12	7:29	7:50	7:59	—
6:58	7:18	7:35	7:56	8:05	8:09
7:04	7:24	7:41	8:02	8:11	—
7:10	7:30	7:47	8:08	8:17	—
7:16	7:36	7:53	8:14	8:23	—
7:22	7:42	7:59	8:20	8:29	8:33
7:28	7:48	8:05	8:26	8:35	—
7:34	7:54	8:11	8:32	8:41	—
7:40	8:00	8:17	8:38	8:47	8:51
7:46	8:06	8:23	8:44	8:53	—
7:52	8:12	8:29	8:50	8:59	9:03
7:58	8:18	8:35	8:56	9:05	—
8:04	8:24	8:41	9:02	9:11	—
8:10	8:30	8:47	9:08	9:17	9:21
8:16	8:36	8:53	9:14	9:23	—
8:22	8:42	8:59	9:20	9:29	9:33
8:28	8:48	9:05	9:26	9:36	9:40
8:34	8:54	9:12	9:33	9:42	—
8:41	9:01	9:19	9:40	9:50	9:54
8:50	9:11	9:29	9:50	9:59	—
8:59	9:21	9:39	10:00	10:10	10:14
9:09	9:31	9:49	10:10	10:19	—
9:19	9:41	9:59	10:21	10:31	10:35
9:29	9:51	10:10	10:32	10:41	—
9:39	10:01	10:21	10:43	10:53	10:57
9:49	10:11	10:31	10:53	11:02	—
9:58	10:21	10:41	11:03	11:13	11:17
10:08	10:31	10:51	11:13	11:22	—
10:16	10:41	11:01	11:23	11:33	11:37
10:26	10:51	11:11	11:33	11:42	—
10:36	11:01	11:21	11:44	11:54	11:58
10:46	11:11	11:31	11:55	12:04P	—
10:56	11:21	11:41	12:05P	12:15	12:19P
11:06	11:31	11:51	12:15	12:25	12:29
11:16	11:41	12:01P	12:26	12:36	12:40
11:25	11:51	12:11	12:36	12:46	—
11:35	12:01P	12:22	12:47	12:57	1:01
11:44	12:11	12:32	12:57	1:07	—
11:53	12:21	12:42	1:07	1:17	1:21
12:03P	12:31	12:52	1:17	1:27	—
12:13	12:41	1:02	1:27	1:37	1:42
12:23	12:51	1:12	1:37	1:47	—
12:33	1:01	1:22	1:47	1:57	2:02
12:43	1:11	1:32	1:57	2:07	—
12:53	1:21	1:42	2:08	2:18	2:23
1:03	1:31	1:52	2:18	2:28	—
1:13	1:41	2:02	2:27	2:37	2:42
1:23	1:51	2:13	2:38	2:48	—
1:33	2:01	2:24	2:49	2:59	3:04
1:43	2:11	2:34	2:59	3:09	—
1:53	2:21	2:44	3:09	3:19	3:24
2:03	2:31	2:54	3:19	3:29	—
2:13	2:41	3:04	3:29	3:39	3:44
2:23	2:51	3:14	3:39	3:49	—
2:33	3:01	3:24	3:49	3:59	4:03
2:39	3:07	3:30	3:55	4:05	4:09
2:45	3:13	3:36	4:01	4:11	—
2:51	3:19	3:42	4:07	4:17	4:21
2:57	3:25	3:48	4:13	4:23	4:27
3:03	3:31	3:54	4:19	4:29	—
3:09	3:37	4:00	4:25	4:35	4:39
3:15	3:43	4:06	4:31	4:40	4:44
3:21	3:49	4:12	4:37	4:47	—
3:27	3:55	4:18	4:43	4:52	4:56
3:33	4:01	4:24	4:49	4:58	5:02
3:39	4:07	4:30	4:55	5:05	—
3:45	4:13	4:36	5:01	5:10	—
3:51	4:19	4:42	5:06	5:15	5:19
3:57	4:25	4:48	5:11	5:20	—
4:03	4:31	4:54	5:17	5:26	5:30
4:09	4:37	5:00	5:23	5:32	5:36
4:15	4:43	5:06	5:29	5:38	—
4:21	4:49	5:12	5:35	5:44	5:48
4:27	4:55	5:18	5:41	5:50	—
4:33	5:01	5:24	5:47	5:56	—
4:39	5:07	5:30	5:53	6:02	6:06
4:45	5:13	5:36	5:59	6:08	6:12
4:51	5:19	5:42	6:05	6:14	—
4:57	5:25	5:48	6:11	6:20	—
5:03	5:31	5:54	6:17	6:26	6:30
5:09	5:37	6:00	6:22	6:31	—
5:15	5:43	6:05	6:27	6:36	—
5:21	5:49	6:11	6:33	6:42	6:46
5:27	5:55	6:16	6:38	6:47	—
5:35	6:03	6:24	6:46	6:55	—
5:43	6:11	6:32	6:54	7:03	7:07
5:51	6:19	6:40	7:02	7:11	—
5:59	6:27	6:48	7:10	7:19	—
6:07	6:35	6:56	7:18	7:27	7:31
6:15	6:43	7:03	7:25	7:34	—
6:23	6:51	7:11	7:33	7:42	—
6:31	6:59	7:18	7:39	7:48	7:52
6:40	7:07	7:26	7:46	7:55	—
6:48	7:15	7:34	7:54	8:03	—
6:58	7:23	7:42	8:02	8:10	8:13
7:06	7:31	7:49	8:09	8:18	—
7:15	7:39	7:57	8:17	8:26	—
7:23	7:47	8:05	8:25	8:33	8:36
7:31	7:55	8:12	8:32	8:41	—
7:39	8:03	8:20	8:39	8:48	—
7:47	8:11	8:28	8:47	8:55	8:58
7:56	8:19	8:36	8:55	9:04	—
8:04	8:27	8:44	9:03	9:12	—
8:16	8:37	8:54	9:12	9:20	9:23
8:27	8:47	9:04	9:22	9:31	—
8:42	9:02	9:18	9:36	9:45	—
9:04	9:22	9:38	9:56	10:03	10:06
9:24	9:42	9:58	10:16	10:23	10:26
9:44	10:02	10:18	10:36	10:43	10:46
10:04	10:22	10:38	10:56	11:05	—
10:24	10:42	10:58	11:16	11:23	11:26
10:49	11:06	11:21	11:38	11:46	—
11:15	11:31	11:45	11:59	12:07A	12:10A
11:40	11:56	12:09A	12:24A	12:31	—
12:07A	12:21A	12:34	12:49	12:56	—
12:35	12:49	1:02	1:17	1:23	—
1:10	1:24	1:37	1:52	1:58	—
2:10	2:24	2:36	2:51	2:57	—
3:10	3:24	3:36	3:51	3:57	—
4:10	4:24	4:36	4:51	4:57	—

Saturday

Effective Jun 26 2022

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Northbound (Approximate Times)

HAWTHORNE ① Crenshaw Station	ATHENS ② Western & Imperial	LOS ANGELES ③ Western & Manchester	LOS ANGELES ④ Expo/Western Station	KOREATOWN ⑤ Wilshire & Western Station	HOLLYWOOD ⑥ Hollywood & Western D
—	4:04A	4:10A	4:24A	4:36A	4:53A
—	4:35	4:41	4:55	5:07	5:24
—	5:07	5:13	5:27	5:40	5:57
—	5:20	5:26	5:42	5:55	6:12
—	5:35	5:41	5:57	6:10	6:27
—	5:50	5:56	6:12	6:25	6:43
—	6:01	6:07	6:23	6:37	6:56
6:07A	6:11	6:17	6:33	6:48	7:08
—	6:20	6:26	6:43	6:58	7:18
6:26	6:30	6:36	6:53	7:09	7:29
—	6:40	6:46	7:03	7:19	7:39
6:46	6:50	6:56	7:13	7:29	7:49
—	6:59	7:06	7:23	7:39	7:59
7:05	7:09	7:16	7:33	7:49	8:10
—	7:19	7:26	7:43	7:59	8:21
7:25	7:29	7:36	7:53	8:09	8:31
—	7:39	7:46	8:03	8:20	8:43
7:44	7:49	7:56	8:13	8:30	8:54
7:53	7:58	8:05	8:23	8:40	9:04
8:03	8:08	8:15	8:33	8:50	9:14
—	8:17	8:24	8:43	9:00	9:25
8:21	8:26	8:34	8:53	9:11	9:36
—	8:36	8:44	9:03	9:21	9:46
8:39	8:44	8:52	9:11	9:29	9:54
—	8:54	9:02	9:22	9:40	10:06
9:01	9:06	9:14	9:34	9:52	10:19
—	9:16	9:24	9:44	10:02	10:30
9:20	9:25	9:33	9:53	10:12	10:40
—	9:34	9:42	10:02	10:22	10:50
9:38	9:43	9:51	10:12	10:32	11:00
—	9:53	10:01	10:22	10:42	11:10
9:58	10:03	10:11	10:32	10:52	11:20
10:08	10:13	10:21	10:42	11:02	11:30
10:16	10:21	10:29	10:50	11:11	11:39
—	10:31	10:39	11:00	11:21	11:49
10:35	10:41	10:49	11:10	11:31	11:59
10:44	10:50	10:58	11:20	11:41	12:09P
10:54	11:00	11:08	11:30	11:51	12:19
—	11:10	11:18	11:40	12:01P	12:29
11:14	11:20	11:28	11:50	12:11	12:39
11:24	11:30	11:38	11:59	12:21	12:49
—	11:39	11:47	12:10P	12:31	12:59
11:42	11:49	11:57	12:20	12:41	1:09
—	11:58	12:07P	12:30	12:51	1:19
11:59	12:07P	12:16	12:39	1:00	1:28
—	12:17	12:26	12:49	1:10	1:38
12:20P	12:27	12:36	12:59	1:20	1:48
12:30	12:37	12:46	1:09	1:30	1:58
12:40	12:47	12:56	1:19	1:40	2:08
—	12:57	1:06	1:29	1:50	2:18
1:00	1:07	1:16	1:39	2:00	2:28
1:10	1:17	1:26	1:49	2:10	2:38
1:20	1:27	1:36	1:59	2:20	2:48
—	1:37	1:46	2:09	2:30	2:58
1:41	1:47	1:56	2:19	2:40	3:08
1:51	1:57	2:06	2:29	2:50	3:18
2:01	2:07	2:16	2:39	3:00	3:28
—	2:17	2:26	2:49	3:10	3:38
2:21	2:27	2:36	2:59	3:20	3:48
2:31	2:37	2:46	3:09	3:30	3:58
2:41	2:47	2:56	3:19	3:40	4:08
—	2:57	3:06	3:29	3:50	4:18
3:01	3:07	3:16	3:39	4:00	4:28
3:11	3:17	3:26	3:49	4:10	4:38
3:20	3:26	3:35	3:58	4:19	4:47
—	3:36	3:45	4:08	4:29	4:57
3:41	3:47	3:56	4:19	4:40	5:08
3:52	3:58	4:07	4:30	4:51	5:19
4:03	4:09	4:18	4:40	5:01	5:29
—	4:20	4:29	4:50	5:11	5:39
4:24	4:30	4:39	5:00	5:21	5:49
4:34	4:40	4:49	5:10	5:31	5:59
4:44	4:50	4:59	5:20	5:41	6:09
—	5:00	5:09	5:30	5:51	6:18
5:04	5:10	5:19	5:40	6:01	6:28
5:14	5:20	5:29	5:50	6:11	6:38
5:24	5:30	5:39	6:00	6:20	6:47
—	5:40	5:49	6:10	6:30	6:57
5:45	5:51	6:00	6:20	6:40	7:06
5:56	6:02	6:10	6:30	6:50	7:16
6:06	6:12	6:20	6:40	7:00	7:26
—	6:22	6:30	6:50	7:10	7:36
6:26	6:32	6:40	7:00	7:20	7:46
6:37	6:43	6:51	7:10	7:30	7:55
6:48	6:54	7:02	7:21	7:40	8:05
—	7:04	7:12	7:31	7:50	8:15
7:08	7:14	7:22	7:41	8:00	8:24
7:19	7:25	7:33	7:52	8:10	8:34
7:30	7:36	7:44	8:03	8:20	8:44
—	7:50	7:58	8:17	8:34	8:58
8:00	8:05	8:12	8:31	8:48	9:12
—	8:21	8:28	8:47	9:04	9:27
8:37	8:42	8:49	9:07	9:24	9:45
—	9:04	9:11	9:29	9:45	10:06
9:21	9:26	9:33	9:50	10:05	10:26
—	9:47	9:54	10:10	10:25	10:46
10:02	10:07	10:14	10:30	10:45	11:04
10:23	10:28	10:35	10:51	11:05	11:24
10:48	10:53	11:00	11:16	11:30	11:49
—	11:18	11:25	11:41	11:55	12:13A
11:39	11:44	11:51	12:07A	12:20A	12:38
—	12:13A	12:19A	12:35	12:48	1:05
12:35A	12:40	12:46	1:01	1:14	1:31
—	1:08	1:14	1:29	1:42	1:59
—	2:08	2:14	2:29	2:41	2:58
—	3:08	3:14	3:28	3:40	3:56

Southbound (Approximate Times)

HOLLYWOOD ⑦ Western & Franklin	KOREATOWN ⑤ Wilshire & Western Station	LOS ANGELES ④ Expo/Western Station	LOS ANGELES ③ Western & Manchester	ATHENS ② Western & Imperial	HAWTHORNE ① Crenshaw Station
5:03A	5:19A	5:33A	5:48A	5:55A	5:58A
5:32	5:49	6:03	6:18	6:25	6:28
5:56	6:13	6:27	6:42	6:49	6:52
6:11	6:28	6:42	6:57	7:04	7:07
6:26	6:43	6:57	7:14	7:21	7:24
6:40	6:57	7:12	7:29	7:36	7:39
6:52	7:09	7:24	7:41	7:48	7:51
7:02	7:19	7:34	7:51	7:59	—
7:12	7:29	7:44	8:01	8:09	8:12
7:22	7:39	7:54	8:12	8:21	—
7:32	7:49	8:05	8:23	8:31	8:34
7:42	7:59	8:15	8:33	8:42	—
7:52	8:09	8:25	8:43	8:52	8:55
8:02	8:19	8:35	8:53	9:02	—
8:12	8:29	8:45	9:03	9:12	9:15
8:22	8:39	8:55	9:14	9:23	—
8:32	8:49	9:05	9:25	9:34	9:37
8:42	8:59	9:16	9:36	9:45	9:48
8:50	9:09	9:26	9:46	9:55	9:58
8:58	9:19	9:36	9:56	10:05	—
9:08	9:29	9:46	10:06	10:15	10:18
9:18	9:39	9:56	10:17	10:26	10:29
9:28	9:49	10:06	10:27	10:36	10:39
9:37	9:58	10:16	10:37	10:46	—
9:48	10:09	10:27	10:48	10:57	11:00
9:58	10:19	10:37	10:58	11:07	11:10
10:07	10:28	10:47	11:09	11:18	11:21
10:17	10:38	10:57	11:19	11:28	—
10:27	10:48	11:07	11:29	11:38	11:41
10:36	10:58	11:17	11:39	11:48	—
10:46	11:08	11:27	11:49	11:58	12:01P
10:55	11:18	11:37	11:59	12:08P	12:12
11:05	11:28	11:47	12:09P	12:18	12:22
11:15	11:38	11:57	12:19	12:28	—
11:25	11:48	12:07P	12:29	12:39	12:43
11:35	11:58	12:17	12:39	12:49	12:53
11:44	12:08P	12:27	12:49	12:59	1:03
11:55	12:20	12:39	1:01	1:10	—
12:04P	12:29	12:48	1:10	1:20	1:24
12:13	12:38	12:57	1:19	1:29	1:33
12:24	12:49	1:08	1:30	1:40	1:44
12:35	1:00	1:20	1:42	1:51	—
12:42	1:08	1:28	1:50	2:00	2:04
12:52	1:18	1:38	2:00	2:10	2:14
1:03	1:29	1:49	2:11	2:21	2:25
1:14	1:40	2:00	2:22	2:31	—
1:23	1:49	2:09	2:31	2:41	2:45
1:32	1:58	2:18	2:40	2:50	2:54
1:42	2:08	2:28	2:50	3:00	3:04
1:52	2:18	2:38	3:00	3:09	—
2:02	2:28	2:48	3:10	3:19	3:23
2:12	2:38	2:58	3:20	3:29	3:33
2:22	2:48	3:08	3:30	3:39	3:43
2:32	2:58	3:18	3:40	3:49	—
2:42	3:08	3:28	3:50	3:59	4:03
2:52	3:18	3:38	4:00	4:09	4:13
3:02	3:28	3:48	4:10	4:19	4:23
3:12	3:38	3:58	4:20	4:29	—
3:22	3:48	4:08	4:30	4:39	4:43
3:32	3:58	4:18	4:40	4:49	4:53
3:42	4:08	4:28	4:50	4:59	5:03
3:52	4:18	4:38	5:00	5:09	—
4:02	4:28	4:48	5:09	5:18	5:22
4:12	4:38	4:58	5:19	5:28	5:32
4:22	4:48	5:08	5:29	5:38	5:42
4:32	4:58	5:17	5:38	5:47	—
4:42	5:08	5:27	5:48	5:57	6:01
4:52	5:18	5:37	5:58	6:07	6:11
5:02	5:28	5:47	6:08	6:17	6:21
5:12	5:38	5:57	6:18	6:27	—
5:22	5:48	6:07	6:28	6:37	6:40
5:32	5:58	6:16	6:37	6:46	6:49
5:43	6:08	6:26	6:47	6:56	6:59
5:53	6:18	6:36	6:57	7:06	—
6:03	6:28	6:46	7:06	7:15	7:18
6:13	6:38	6:56	7:15	7:24	—
6:23	6:48	7:06	7:25	7:34	7:37
6:33	6:58	7:15	7:34	7:43	—
6:46	7:10	7:27	7:46	7:55	7:58
7:00	7:22	7:39	7:58	8:07	—
7:15	7:37	7:54	8:13	8:21	8:24
7:30	7:52	8:09	8:28	8:37	—
7:45	8:07	8:23	8:42	8:50	8:53
8:01	8:22	8:38	8:57	9:06	—
8:17	8:37	8:53	9:11	9:19	9:22
8:33	8:52	9:08	9:26	9:35	—
8:49	9:07	9:23	9:41	9:50	—
9:04	9:22	9:38	9:56	10:03	10:06
9:24	9:42	9:58	10:16	10:23	10:26
9:44	10:02	10:18	10:36	10:43	10:46
10:04	10:22	10:38	10:56	11:05	—
10:24	10:42	10:58	11:16	11:23	11:26
10:49	11:06	11:21	11:38	11:46	—
11:15	11:31	11:45	11:59	12:07A	12:10A
11:40	11:56	12:09A	12:24A	12:31	—
12:07A	12:21A	12:34	12:49	12:56	—
12:35	12:49	1:02	1:17	1:23	—
1:10	1:24	1:37	1:52	1:58	—
2:10	2:24	2:36	2:51	2:57	—
3:10	3:24	3:36	3:51	3:57	—
4:10	4:24	4:36	4:51	4:57	—

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Text: 213.788.2777
App: LA Metro Transit Watch

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Metro Local

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Effective Jun 26 2022

Northbound to Hollywood
Southbound to Athens
via Western Av

metro.net
323.GO.METRO

Wheelchair Hotline
800.621.7828

511 Travel Info

711 California Relay Service

Sunday & Holiday Schedule 207

Effective Jun 26 2022

Northboundⁿ

HAWTHORNE: Crenshaw Station (1)	ATHENS: Western & Imperial (2)	LOS ANGELES: Western & Manchester (3)	LOS ANGELES: Expo/Western Station (4)	KOREATOWN: Wilshire & Western Station (5)	HOLLYWOOD: Hollywood & Western D (6)
—	4:04A	4:10A	4:24A	4:36A	4:53A
—	4:35	4:41	4:55	5:07	5:25
—	5:06	5:12	5:26	5:39	5:56
—	5:20	5:26	5:42	5:55	6:12
—	5:34	5:40	5:56	6:10	6:27
—	5:49	5:55	6:11	6:25	6:43
—	6:04	6:10	6:26	6:40	6:58
6:09A	6:13	6:19	6:36	6:50	7:08
—	6:21	6:27	6:45	7:00	7:18
6:26	6:30	6:37	6:55	7:10	7:28
—	6:40	6:47	7:05	7:20	7:40
6:46	6:50	6:57	7:15	7:30	7:50
—	6:59	7:06	7:24	7:40	8:01
7:05	7:09	7:16	7:34	7:50	8:11
—	7:19	7:26	7:44	8:00	8:21
7:25	7:29	7:36	7:54	8:10	8:31
—	7:39	7:46	8:04	8:20	8:41
7:44	7:49	7:56	8:14	8:30	8:52
7:54	7:59	8:06	8:24	8:40	9:02
8:03	8:08	8:15	8:33	8:50	9:12
—	8:17	8:24	8:43	9:00	9:22
8:21	8:26	8:34	8:53	9:10	9:33
—	8:36	8:44	9:03	9:20	9:43
8:41	8:46	8:54	9:13	9:30	9:53
—	8:55	9:03	9:22	9:40	10:05
9:00	9:05	9:13	9:32	9:50	10:16
—	9:15	9:23	9:42	10:00	10:26
9:20	9:25	9:33	9:52	10:10	10:36
—	9:34	9:42	10:01	10:20	10:46
9:39	9:44	9:52	10:11	10:30	10:56
—	9:52	10:00	10:21	10:40	11:06
9:57	10:02	10:10	10:31	10:50	11:16
10:07	10:12	10:20	10:41	11:00	11:26
10:17	10:22	10:30	10:51	11:10	11:36
—	10:32	10:40	11:01	11:20	11:46
10:35	10:41	10:49	11:10	11:30	11:56
10:45	10:51	10:59	11:20	11:40	12:06P
10:55	11:01	11:09	11:30	11:50	12:16
—	11:11	11:19	11:40	11:59	12:26
11:15	11:21	11:29	11:50	12:10P	12:36
11:24	11:31	11:39	11:59	12:20	12:46
—	11:41	11:49	12:10P	12:30	12:57
11:44	11:51	11:59	12:20	12:40	1:07
—	12:01P	12:09P	12:30	12:50	1:17
12:02P	12:09	12:17	12:40	1:00	1:27
—	12:19	12:27	12:50	1:10	1:37
12:22	12:29	12:37	1:00	1:20	1:47
12:32	12:39	12:47	1:10	1:30	1:57
12:42	12:49	12:57	1:20	1:40	2:07
—	12:59	1:07	1:30	1:50	2:17
1:02	1:09	1:17	1:40	2:00	2:27
1:12	1:19	1:27	1:50	2:10	2:37
1:22	1:29	1:37	2:00	2:20	2:47
—	1:40	1:48	2:10	2:30	2:57
1:44	1:50	1:58	2:20	2:40	3:07
1:54	2:00	2:08	2:30	2:50	3:17
2:04	2:10	2:18	2:40	3:00	3:27
—	2:20	2:28	2:50	3:10	3:37
2:24	2:30	2:38	3:00	3:20	3:47
2:34	2:40	2:48	3:10	3:30	3:57
2:44	2:50	2:58	3:20	3:40	4:07
—	3:01	3:09	3:31	3:50	4:17
3:05	3:11	3:19	3:41	4:00	4:27
3:15	3:21	3:29	3:50	4:09	4:36
3:24	3:30	3:38	3:59	4:18	4:45
—	3:40	3:48	4:09	4:28	4:55
3:44	3:50	3:58	4:19	4:38	5:04
3:54	4:00	4:08	4:29	4:48	5:14
4:04	4:10	4:18	4:39	4:58	5:24
—	4:20	4:28	4:49	5:08	5:34
4:24	4:30	4:38	4:59	5:18	5:44
4:34	4:40	4:48	5:09	5:28	5:54
4:44	4:50	4:58	5:19	5:38	6:04
—	5:00	5:08	5:29	5:48	6:14
5:04	5:10	5:18	5:39	5:58	6:23
5:14	5:20	5:28	5:49	6:08	6:33
5:24	5:30	5:38	5:59	6:18	6:43
—	5:40	5:48	6:09	6:28	6:53
5:45	5:51	5:59	6:19	6:38	7:03
5:55	6:01	6:09	6:29	6:48	7:13
6:05	6:11	6:19	6:39	6:58	7:23
—	6:21	6:29	6:49	7:08	7:33
6:25	6:31	6:39	6:59	7:18	7:43
6:35	6:41	6:49	7:09	7:28	7:53
6:45	6:51	6:59	7:19	7:38	8:03
—	7:01	7:09	7:29	7:48	8:12
7:05	7:11	7:19	7:39	7:58	8:21
7:16	7:22	7:30	7:50	8:08	8:31
7:28	7:34	7:42	8:02	8:19	8:42
—	7:47	7:55	8:14	8:31	8:54
7:58	8:04	8:11	8:30	8:47	9:10
—	8:22	8:29	8:48	9:05	9:28
8:37	8:42	8:49	9:07	9:24	9:45
—	9:04	9:11	9:29	9:45	10:06
9:21	9:26	9:33	9:50	10:05	10:26
—	9:47	9:54	10:10	10:25	10:46
10:02	10:07	10:14	10:30	10:45	11:04
10:23	10:28	10:35	10:51	11:05	11:24
10:48	10:53	11:00	11:16	11:30	11:49
—	11:18	11:25	11:41	11:55	12:13A
11:39	11:44	11:51	12:07A	12:20A	12:38
—	12:13A	12:19A	12:35	12:48	1:05
12:35A	12:40	12:46	1:01	1:14	1:31
—	1:08	1:14	1:29	1:42	1:59
—	2:08	2:14	2:29	2:41	2:58
—	3:08	3:14	3:28	3:40	3:56

Southbound *(Approximate Times)*

HOLLYWOOD: Western & Franklin (7)	KOREATOWN: Wilshire & Western Station (5)	LOS ANGELES: Expo/Western Station (4)	LOS ANGELES: Western & Manchester (3)	ATHENS: Western & Imperial (2)	HAWTHORNE: Crenshaw Station (1)
5:08A	5:22A	5:34A	5:48A	5:55A	5:58A
5:35	5:50	6:03	6:19	6:26	6:29
5:58	6:13	6:27	6:43	6:50	6:53
6:13	6:28	6:42	6:58	7:05	7:08
6:27	6:43	6:57	7:13	7:20	7:23
6:42	6:58	7:12	7:28	7:35	7:38
6:52	7:08	7:22	7:38	7:45	7:48
7:02	7:18	7:32	7:48	7:56	—
7:13	7:28	7:42	7:59	8:07	8:10
7:23	7:38	7:52	8:10	8:18	—
7:33	7:48	8:03	8:21	8:29	8:32
7:43	7:58	8:14	8:32	8:40	—
7:52	8:08	8:24	8:42	8:51	8:54
8:01	8:18	8:34	8:52	9:00	—
8:11	8:28	8:44	9:02	9:11	9:14
8:21	8:38	8:54	9:13	9:21	—
8:32	8:49	9:05	9:24	9:33	9:36
8:43	9:00	9:16	9:35	9:44	9:47
8:53	9:11	9:27	9:47	9:56	9:59
9:02	9:21	9:37	9:57	10:05	—
9:12	9:31	9:47	10:07	10:16	10:19
9:22	9:41	9:57	10:17	10:26	10:29
9:32	9:51	10:07	10:27	10:36	10:39
9:42	10:01	10:17	10:37	10:45	—
9:52	10:11	10:27	10:47	10:56	10:59
10:02	10:21	10:37	10:57	11:06	11:09
10:12	10:31	10:49	11:09	11:18	11:21
10:22	10:41	10:59	11:19	11:27	—
10:31	10:51	11:09	11:29	11:38	11:41
10:41	11:01	11:19	11:39	11:47	—
10:51	11:11	11:29	11:49	11:58	12:01P
11:01	11:21	11:39	11:59	12:08P	12:12
11:11	11:31	11:49	12:09P	12:18	12:22
11:21	11:41	11:59	12:19	12:27	—
11:31	11:51	12:09P	12:29	12:39	12:43
11:41	12:01P	12:19	12:40	12:50	12:54
11:49	12:11	12:29	12:50	1:00	1:04
11:59	12:21	12:39	1:00	1:08	—
12:09P	12:31	12:50	1:11	1:21	1:25
12:19	12:41	1:00	1:21	1:31	1:35
12:28	12:51	1:10	1:31	1:41	1:45
12:38	1:01	1:20	1:41	1:49	—
12:48	1:11	1:30	1:51	2:01	2:05
12:58	1:21	1:40	2:01	2:11	2:15
1:08	1:31	1:50	2:11	2:21	2:25
1:18	1:41	2:00	2:21	2:30	—
1:28	1:51	2:10	2:31	2:41	2:45
1:38	2:01	2:20	2:41	2:51	2:55
1:48	2:11	2:30	2:51	3:01	3:05
1:58	2:21	2:40	3:01	3:10	—
2:08	2:31	2:50	3:11	3:20	3:24
2:18	2:41	3:00	3:21	3:30	3:34
2:28	2:51	3:10	3:31	3:40	3:44
2:38	3:01	3:20	3:41	3:50	—
2:48	3:11	3:30	3:51	4:00	4:04
2:58	3:21	3:40	4:01	4:10	4:14
3:08	3:31	3:50	4:11	4:20	4:24
3:18	3:41	4:00	4:21	4:30	—
3:28	3:51	4:10	4:31	4:40	4:44
3:38	4:01	4:20	4:41	4:50	4:54
3:48	4:11	4:30	4:51	5:00	5:04
3:58	4:21	4:40	5:01	5:10	—
4:09	4:32	4:50	5:10	5:19	5:23
4:20	4:43	5:01	5:21	5:30	5:34
4:31	4:54	5:12	5:32	5:41	5:45
4:42	5:05	5:23	5:43	5:52	—
4:52	5:15	5:33	5:53	6:02	6:06
5:02	5:25	5:43	6:03	6:12	6:16
5:12	5:35	5:53	6:13	6:22	6:26
5:22	5:45	6:03	6:23	6:32	—
5:32	5:55	6:12	6:32	6:41	6:44
5:42	6:05	6:22	6:42	6:51	6:54
5:53	6:15	6:32	6:52	7:01	7:04
6:03	6:25	6:42	7:02	7:11	—
6:13	6:35	6:52	7:12	7:21	7:24
6:23	6:45	7:02	7:20	7:29	—
6:34	6:55	7:12	7:31	7:40	7:43
6:45	7:05	7:22	7:41	7:50	—
6:55	7:15	7:32	7:51	8:00	8:03
7:05	7:25	7:42	8:01	8:10	—
7:17	7:37	7:54	8:13	8:21	8:24
7:30	7:50	8:07	8:26	8:35	—
7:45	8:05	8:22	8:41	8:49	8:52
8:01	8:21	8:38	8:57	9:06	—
8:17	8:36	8:53	9:11	9:19	9:22
8:33	8:51	9:07	9:25	9:34	—
8:49	9:07	9:23	9:41	9:50	—
9:04	9:22	9:38	9:56	10:03	10:06
9:24	9:42	9:58	10:16	10:23	10:26
9:44	10:02	10:18	10:36	10:43	10:46
10:04	10:22	10:38	10:56	11:05	—
10:24	10:42	10:58	11:16	11:23	11:26
10:49	11:06	11:21	11:38	11:46	—
11:15	11:31	11:45	11:59	12:07A	12:10A
11:40	11:56	12:09A	12:24A	12:31	—
12:07A	12:21A	12:34	12:49	12:56	—
12:35	12:49	1:02	1:17	1:23	—
1:10	1:24	1:37	1:52	1:58	—
2:10	2:24	2:36	2:51	2:57	—
3:10	3:24	3:36	3:51	3:57	—
4:10	4:24	4:36	4:51	4:57	—

Sunday and Holiday Schedules

Sunday and Holiday Schedule in effect on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Horarios de domingo y días feriados

Horarios de domingo y días feriados en vigor para New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day

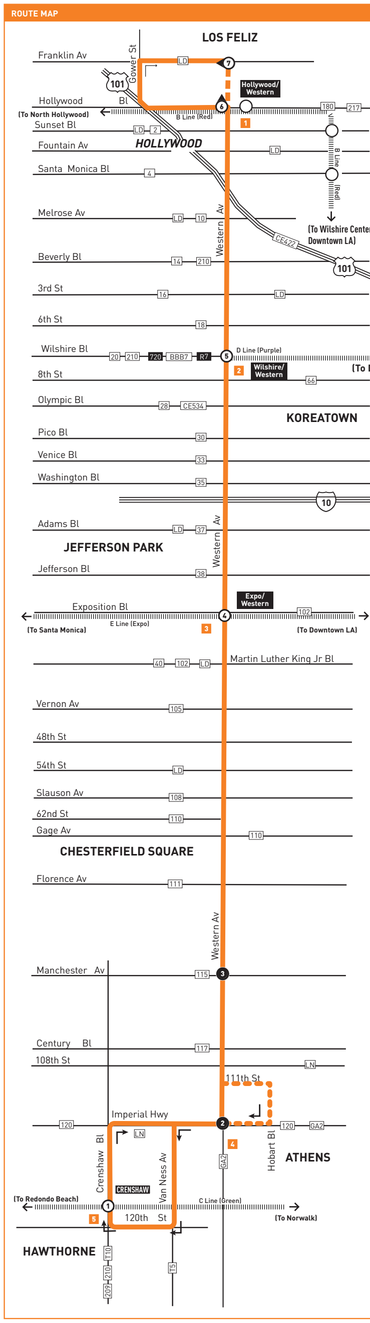
Special Notes

D Trip ends at Western and Franklin at time shown.

Notas Especiales

D *El viaje termina en Western y Franklin como muestra el horario.*

ROUTE MAP



LEGEND

- Line 207 Route
- Line 207 Route (Southbound Only)
- Line 207 Route (Shortline Turnaround)
- Timepoint
- Local Stop and Timepoint Single Direction Only
- Metro Rail
- Metro Rail Station
- Metro Rail Station & Timepoint
- P### Available Parking Spaces
- BBB Santa Monica Big Blue Bus
- CE LADOT Commuter Express
- GA GTrans (Gardena)
- LD LADOT DASH
- LN County of LA - The Link
- R Rapid Bus- Big Blue Bus
- T Torrance Transit

MAP NOTES

1. **Hollywood/Western B Line (Red) Station** Metro 180, 207, 217
2. **Wilshire/Western D Line (Purple) Station** Metro 18, 20, 66, 207, 210, 720; LD Wilshire Center/Koreatown, Hollywood/Wilshire; BBB7, R7
3. **Expo/Western E Line (Expo) Station** Metro 102, 207
4. **LA Southwest College** Metro 120, 207; GA2: LN Athens
5. **Crenshaw C Line (Green) Station** Metro 207, 209, 210; T5, T10 P510

150993

APPENDIX H

MOBILITY NETWORK

WALKABILITY INDEX MAPS

BICYCLE PLAN MAPS

PEDESTRIAN DESTINATION MAPS

&

HIGH INJURY NETWORK MAP

Great Streets Challenge

3/5/2021, 2:51:26 PM

1:9,028

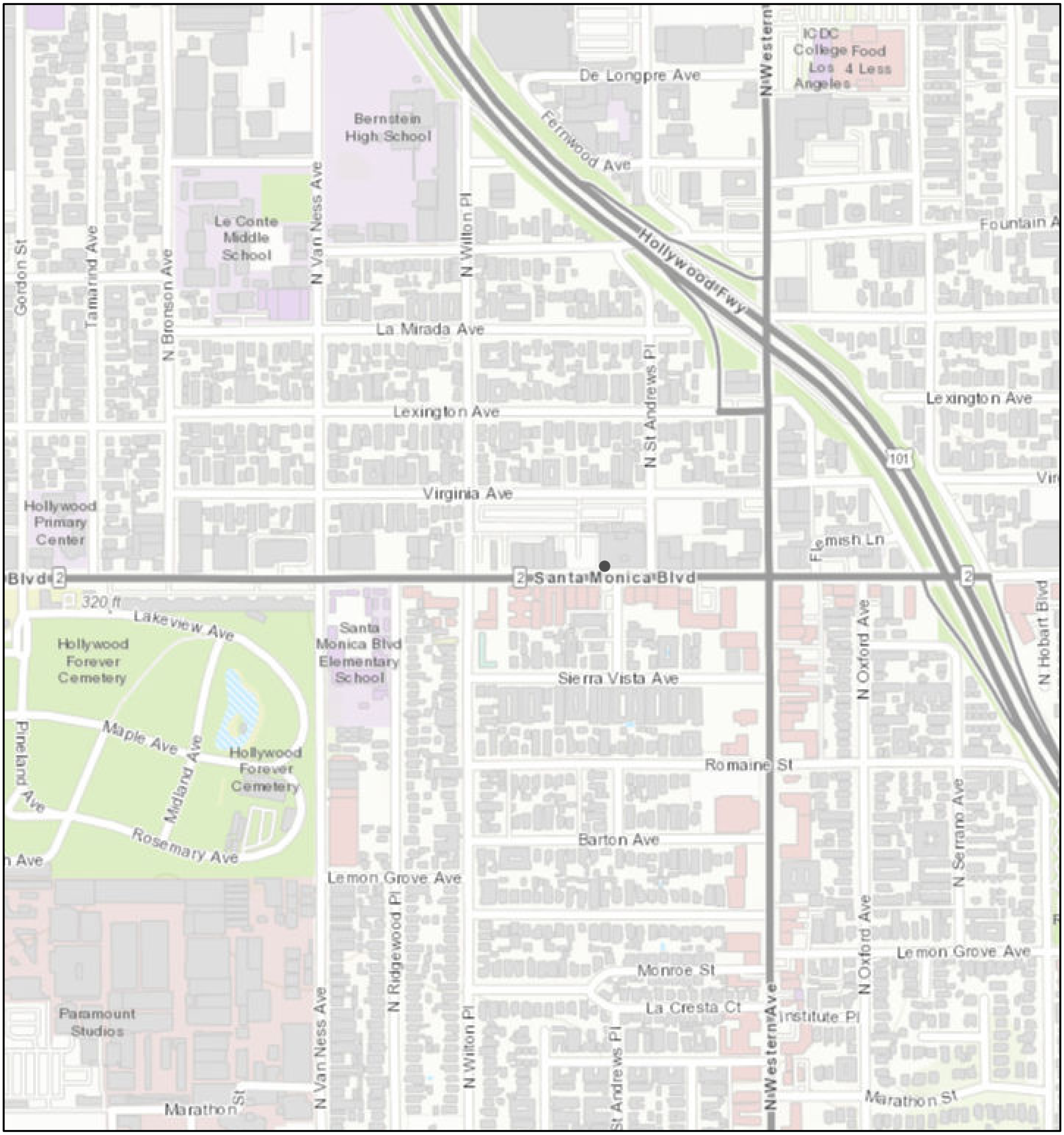
0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Metro Stations



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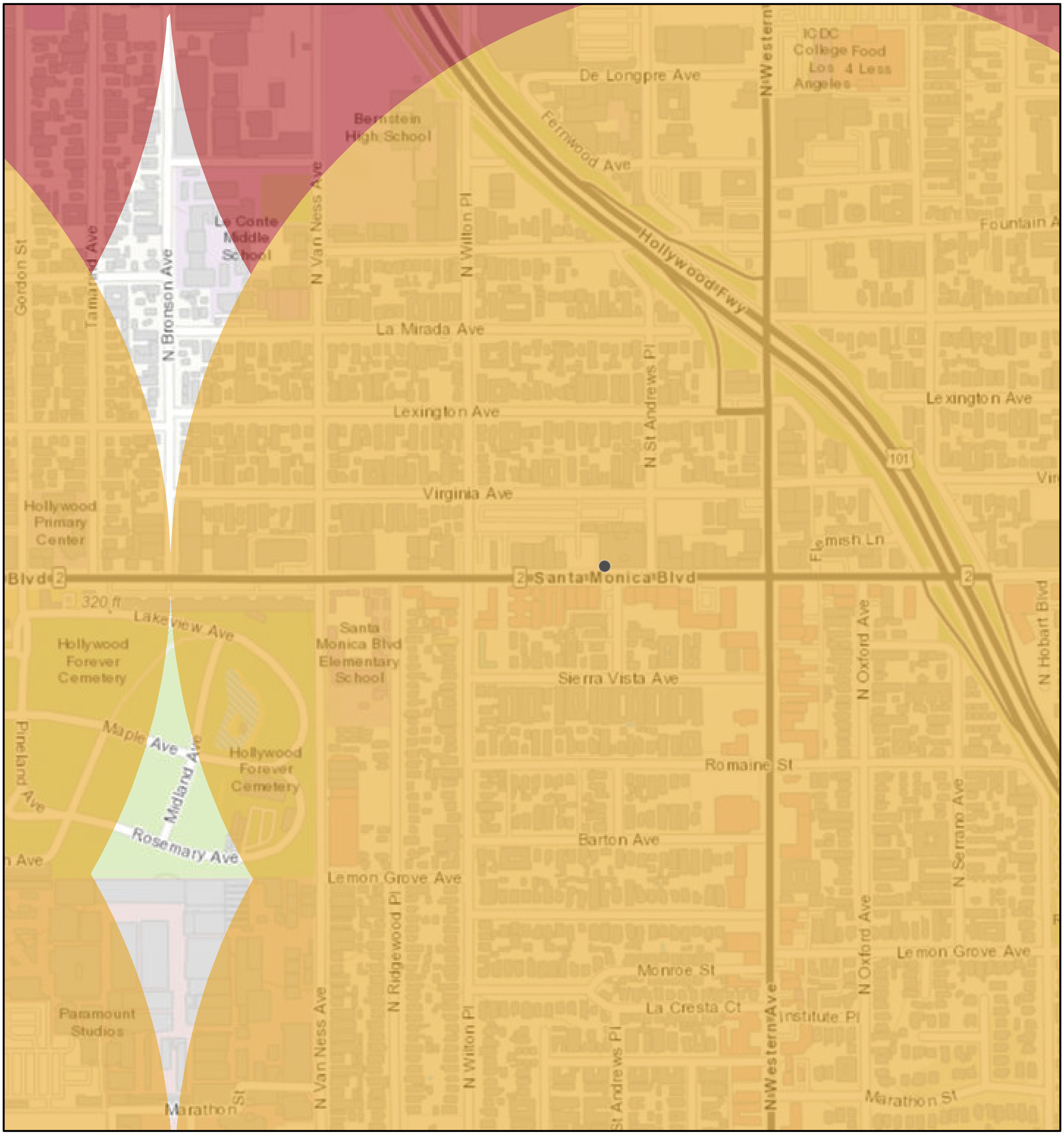
County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Transit Priority Area



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1:9,028

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Transit Priority Area (TPA)

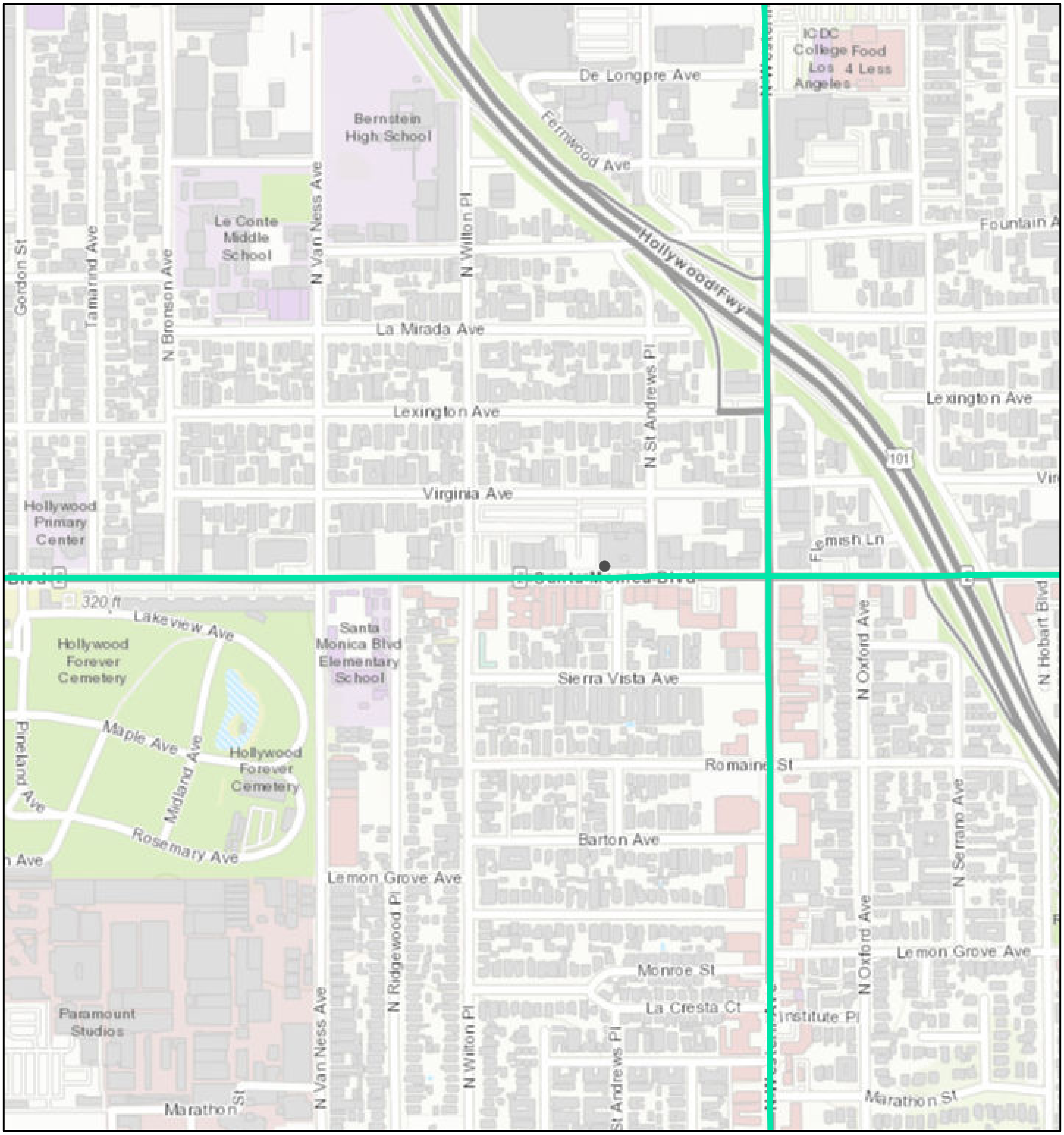
Heavy Rail

Major Bus Routes

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Transit Enhanced Network



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Transit Enhanced Network (TEN)

1:9,028

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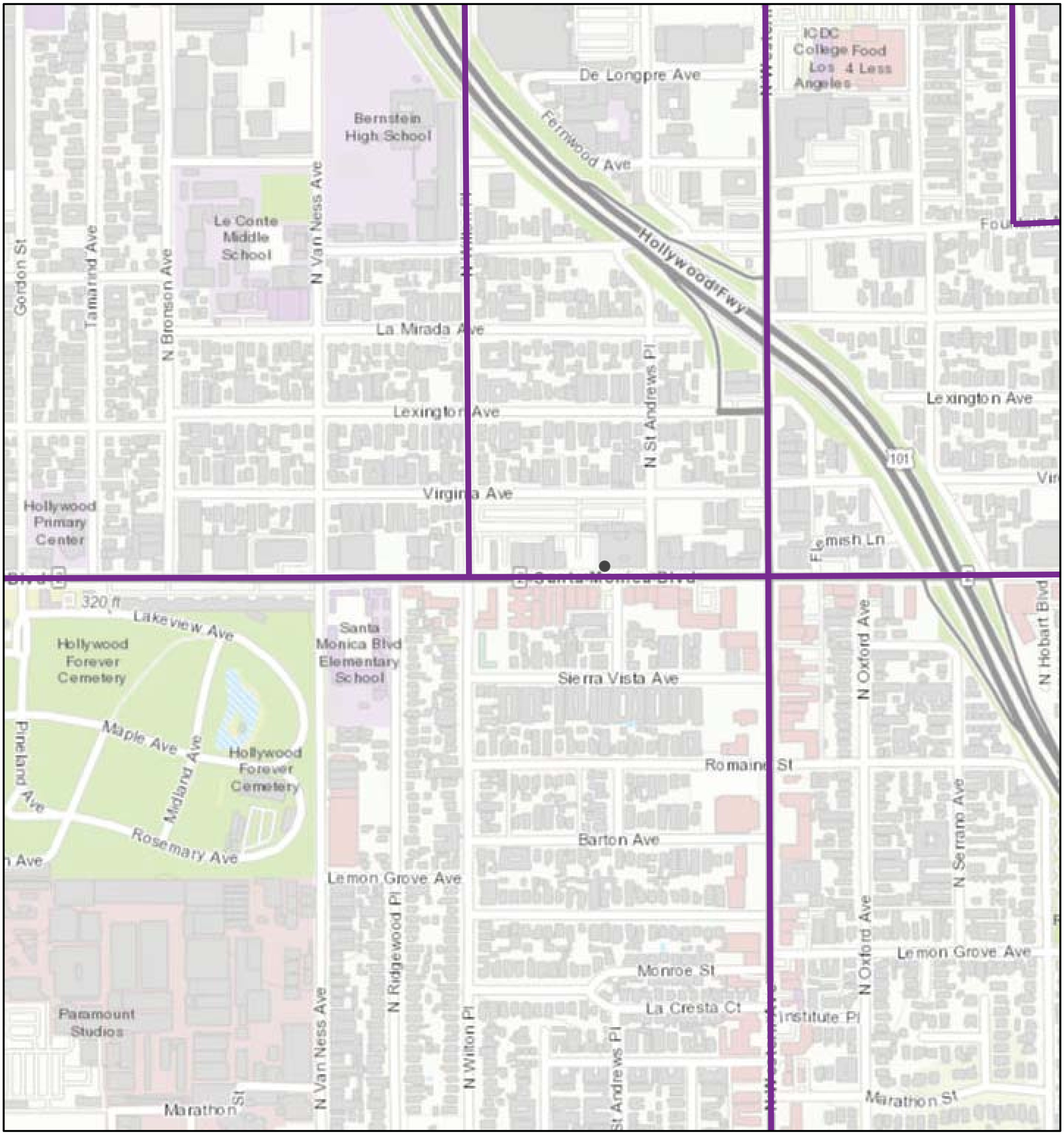
0 0.1 0.2 0.4 km

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

High Injury Network



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High Injury Network

1:9,028

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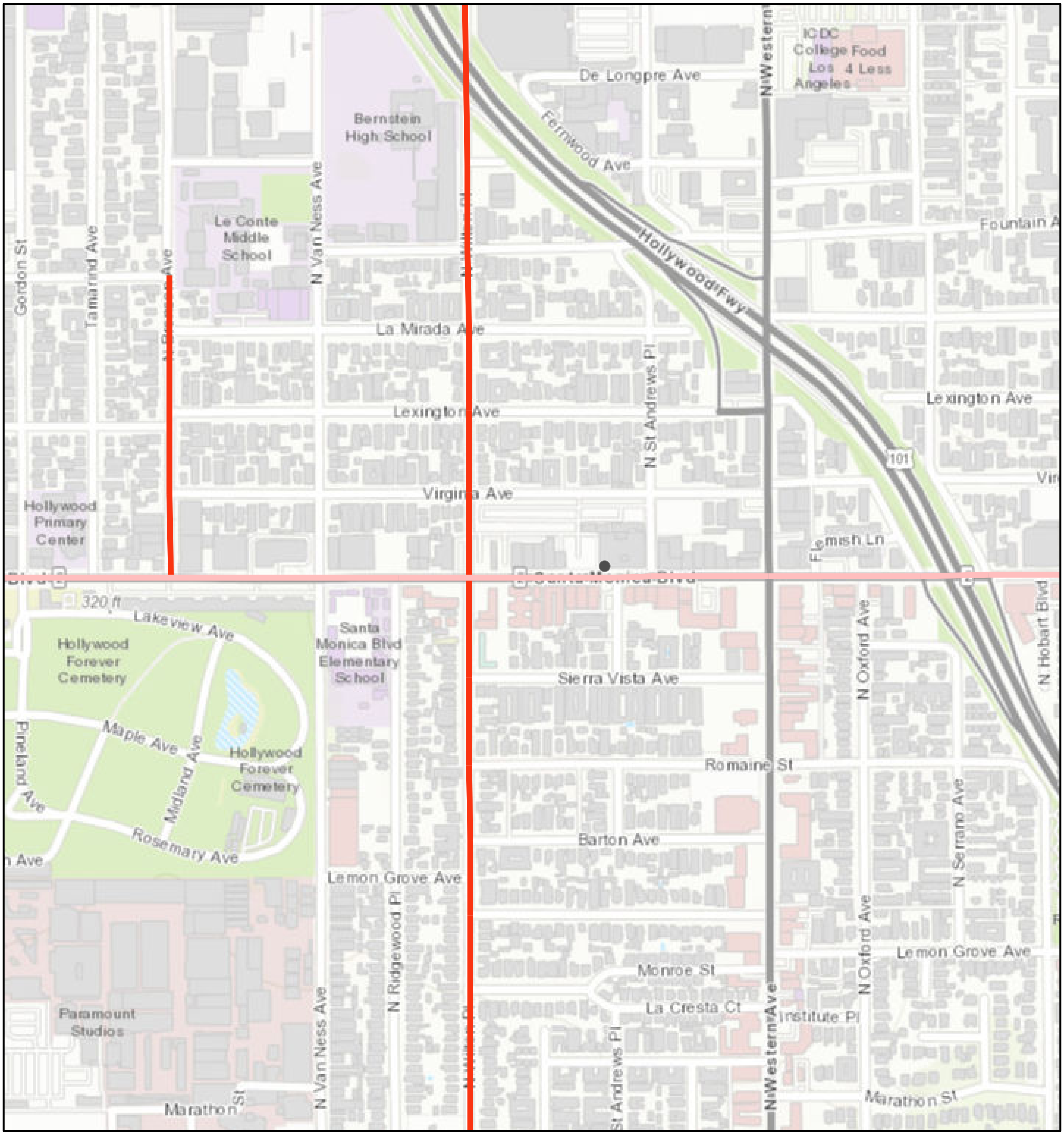
0 0.1 0.2 0.4 km

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Bicycle Network



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0 0.1 0.2 0.4 km

Bicycle Network

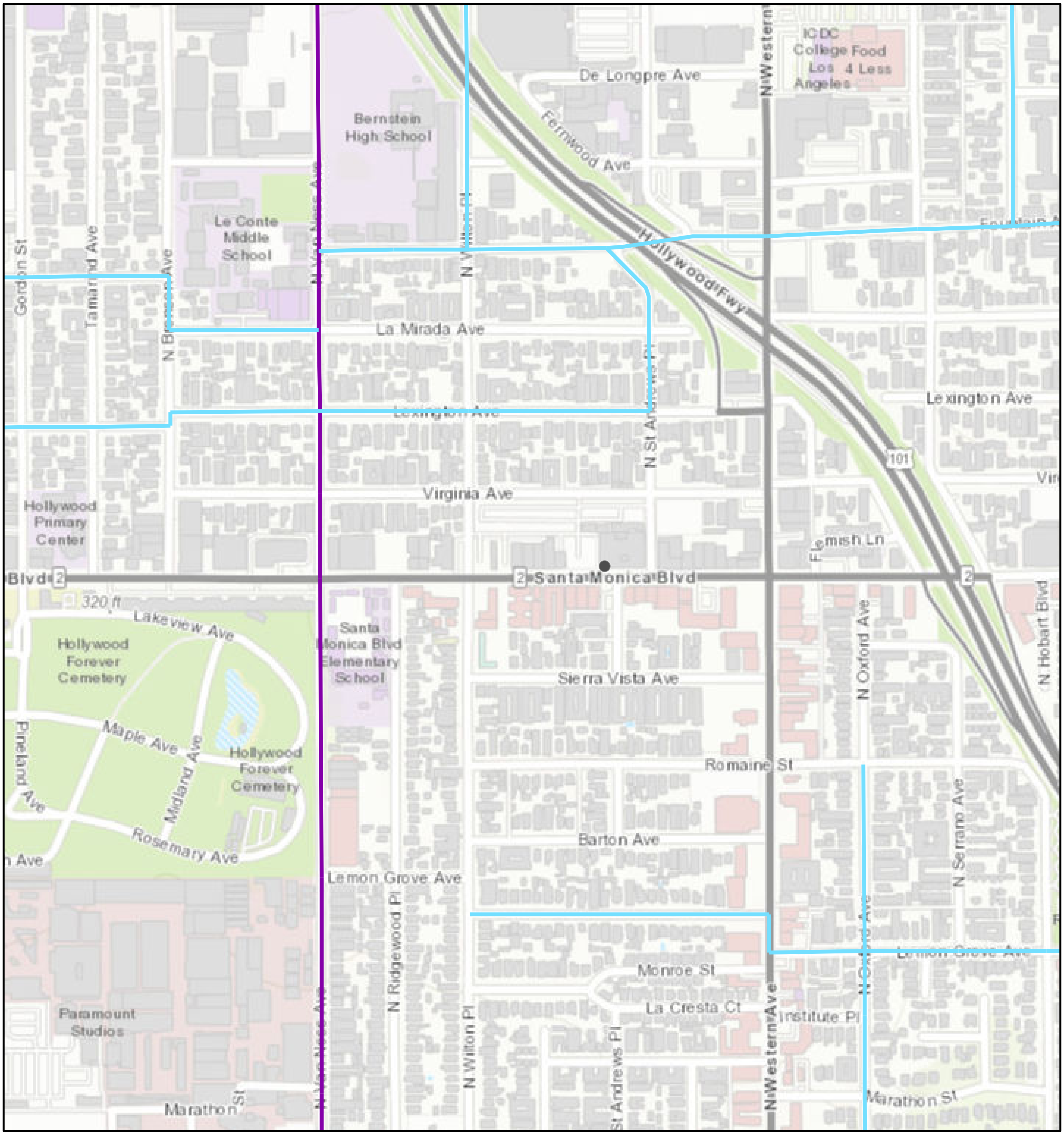
Tier 2 (BLN)

Tier 3 (BLN)

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Neighborhood Enhanced Network



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1:9,028

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0 0.1 0.2 0.4 km

Neighborhood Network (NEN)

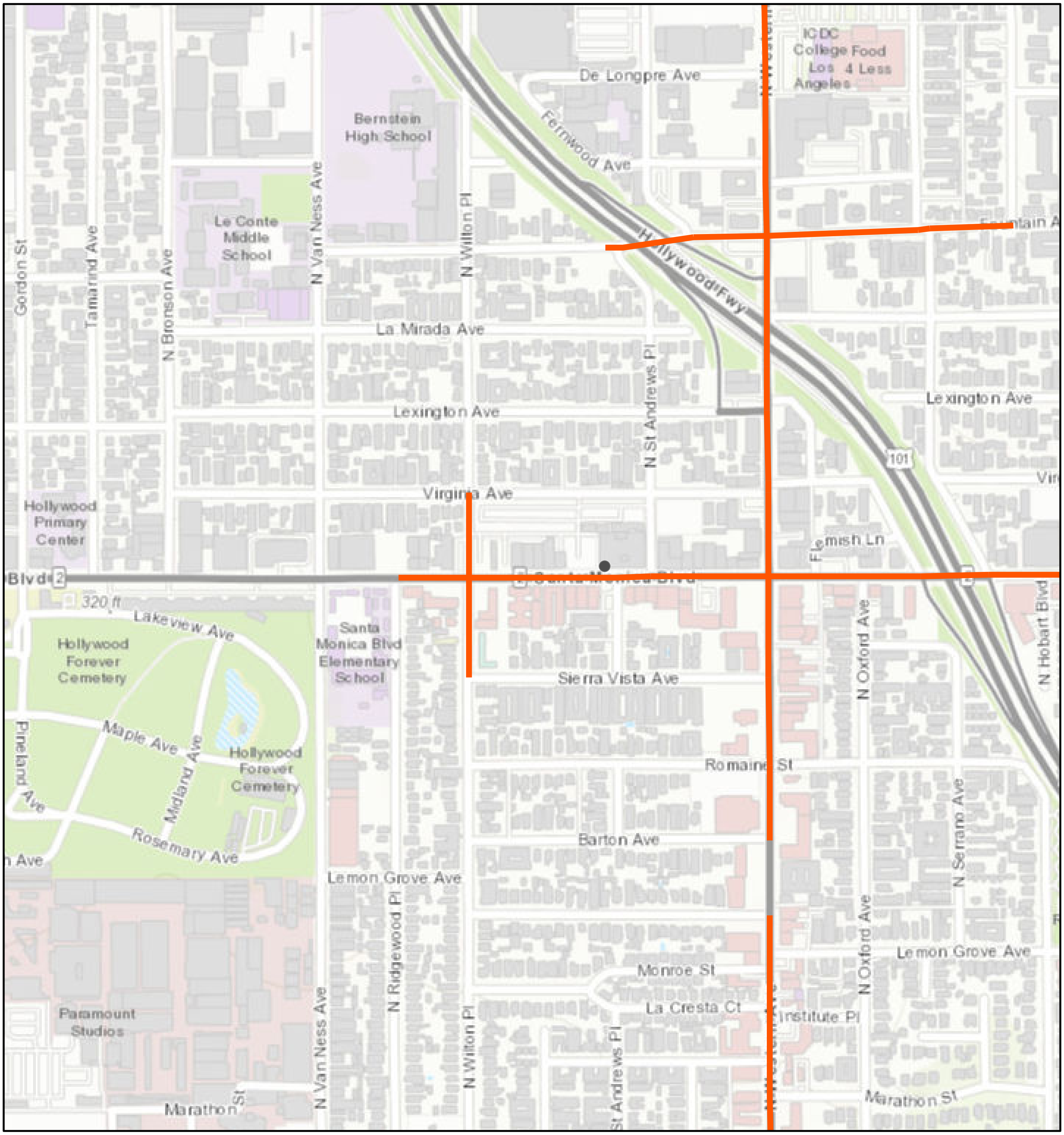
Tier 1 NEN

Tier 2 NEN

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Pedestrian Enhanced District



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Pedestrian Enhanced Districts (PEDs)

1:9,028

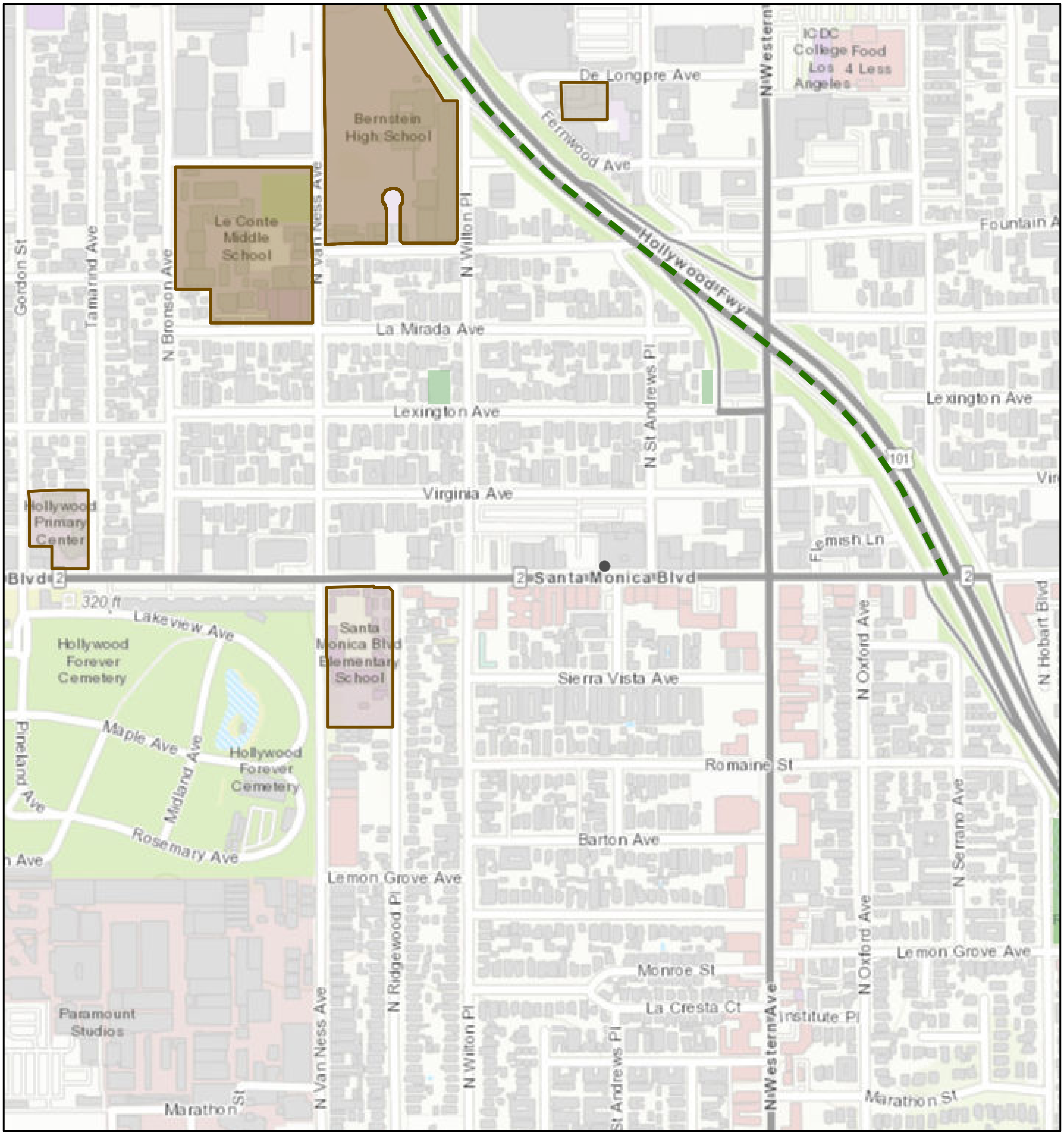
0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Los Angeles Department of City Planning

Library, Schools, Green Network, Parks



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1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Schools

Schools

Green Network

Bike Paths (Planned)

Parks

County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

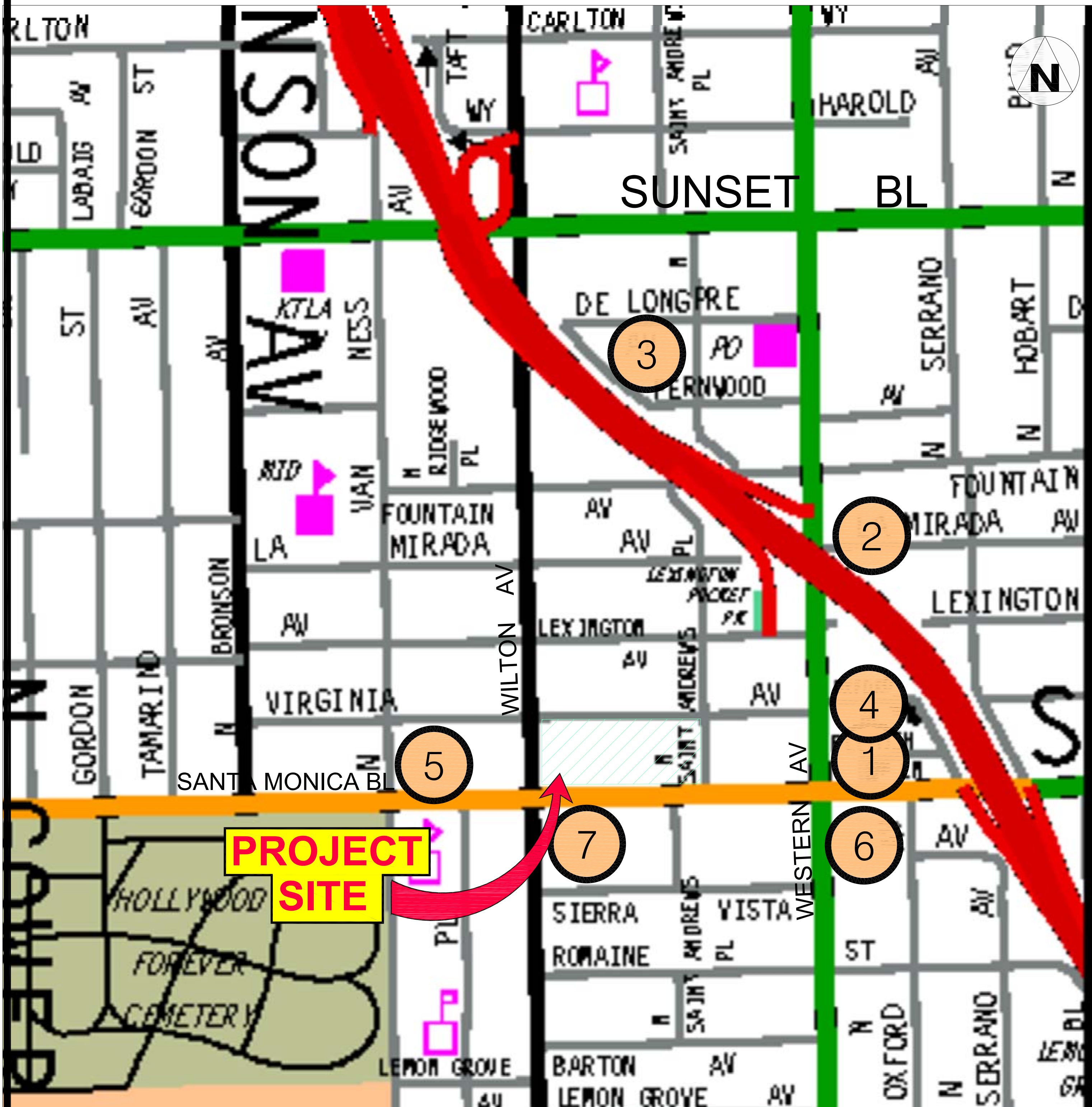
Los Angeles Department of City Planning

APPENDIX I

RELATED PROJECT INFORMATION

RELATED PROJECT LIST
5601 SANTA MONICA

#	Project	Size		Location	Daily Traffic	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hours In	PM Peak Hours Out	PM Peak Hours Total
1	Apartments	68	units	5245 Santa Monica Bl	857	3	29	32	45	28	73
	Retail	51,674	sf								
2	Apartments	75	units	5460 Fountain Avenue	424	7	26	33	23	17	40
3	Apartments	185	units	5632 De Longpre Avenue	800	-31	25	-6	50	19	69
4	Apartments	65	units	5430 Virginia Avenue	435	7	21	28	21	11	32
5	Office	180,073	sf	5731 Santa Monica Bl	1112	128	12	140	14	119	133
6	Apartments	735	units	5420 Santa Monica Bl	8655	10	205	215	167	65	232
	Commercial	95,000	sf								
7	Apartments	179	units	5640 W Santa Monica Bl	974	17	48	65	48	31	79



FIGURE

6/2021

RELATED PROJECT LOCATION MAP

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

APPENDIX J

TRAFFIC VOLUME DATA,

HCS LEVEL OF SERVICE WORKSHEETS.

&

SIGNAL WARRANT WORKSHEETS

TRAFFIC VOLUME DATA

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Wilton Pl

East/West La Mirada Ave

Day: Wednesday Date: June 8, 2016 Weather: SUNNY

Hours: 7-10 & 2-5 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	42	35	3	2
BIKES	25	34	14	8
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	185	8.45	286	8.45	13	7.45	18	8.30
PM PK 15 MIN	207	16.30	208	16.45	27	15.30	11	16.00
AM PK HOUR	697	8.00	1066	8.15	37	7.45	40	8.00
PM PK HOUR	705	16.00	795	16.00	99	15.15	36	15.30

NORTHBOUND Approach / **SOUTHBOUND Approach** / **TOTAL** / **XING S/L** / **XING N/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	56	521	40	617	*7-8*	17	569	24	610	1227	1	0	4	2
8-9	28	632	37	697	*8-9*	19	981	40	1040	1737	5	0	7	4
9-10	18	481	16	515	*9-10*	11	793	25	829	1344	2	0	4	1
14-15	16	548	13	577	*14-15*	9	521	21	551	1128	2	2	0	0
15-16	33	539	22	594	*15-16*	17	692	19	728	1322	2	0	8	8
16-17	35	646	24	705	*16-17*	8	775	12	795	1500	3	1	2	1
TOTAL	186	3367	152	3705	TOTAL	81	4331	141	4553	8258	15	3	25	16

EASTBOUND Approach / **WESTBOUND Approach** / **TOTAL** / **XING W/L** / **XING E/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	3	4	23	30	*7-8*	9	4	15	28	58	120	45	80	26
8-9	4	6	21	31	*8-9*	13	5	22	40	71	50	5	44	19
9-10	6	6	13	25	*9-10*	3	7	12	22	47	17	2	13	7
14-15	25	12	27	64	*14-15*	5	1	10	16	80	60	57	36	21
15-16	32	21	42	95	*15-16*	6	8	15	29	124	91	115	110	32
16-17	28	16	48	92	*16-17*	12	8	13	33	125	51	11	31	12
TOTAL	98	65	174	337	TOTAL	48	33	87	168	505	389	235	314	117

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Wilton Pl

East/West Santa Monica Blvd

Day: Thursday Date: 05/23/2019 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	35	44	145	176
BIKES	25	22	87	67
BUSES	0	0	57	58

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	210	7.45	232	8.15	238	7.30	408	7.00
PM PK 15 MIN	223	16.45	268	16.45	329	17.45	360	17.45
AM PK HOUR	806	7.45	897	8.00	900	7.30	1400	8.00
PM PK HOUR	814	16.45	1028	16.15	1139	16.00	1366	17.00

NORTHBOUND Approach / **SOUTHBOUND Approach** / **TOTAL** / **XING S/L** / **XING N/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	5	670	62	737	*7-8*	3	506	148	657	1394	308	106	86	17
8-9	9	721	61	791	*8-9*	2	797	98	897	1688	187	29	55	9
9-10	52	521	58	631	*9-10*	12	698	127	837	1468	94	19	46	4
15-16	61	577	69	707	*15-16*	25	728	65	818	1525	213	41	129	4
16-17	14	677	69	760	*16-17*	2	926	77	1005	1765	155	29	72	2
17-18	11	716	79	806	*17-18*	0	884	61	945	1751	207	31	85	4
TOTAL	152	3882	398	4432	TOTAL	44	4539	576	5159	9591	1164	255	473	40

EASTBOUND Approach / **WESTBOUND Approach** / **TOTAL** / **XING W/L** / **XING E/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	34	751	38	823	*7-8*	83	1273	20	1376	2199	188	39	80	19
8-9	34	743	57	834	*8-9*	126	1263	11	1400	2234	77	7	73	8
9-10	31	778	55	864	*9-10*	84	1201	24	1309	2173	42	4	37	2
15-16	53	955	79	1087	*15-16*	72	1093	31	1196	2283	134	11	165	22
16-17	57	968	114	1139	*16-17*	83	1113	27	1223	2362	89	5	63	4
17-18	68	924	117	1109	*17-18*	113	1211	42	1366	2475	146	7	75	4
TOTAL	277	5119	460	5856	TOTAL	561	7154	155	7870	13726	676	73	493	59

Prepared by National Data & Surveying Services

Wilton Pl & Santa Monica Blvd

Peak Hour Turning Movement Count

ID: 19-05308-009
City: Hollywood

Day: Thursday
Date: 05/23/2019

	PEAK HOURS	COUNT PERIODS
AM	08:00 AM - 09:00 AM	07:00 AM - 10:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	03:00 PM - 06:00 PM

Wilton Pl — SOUTHBOUND

	Right	Through	Left	U-Turn	Northbound departure
AM	98	797	2	0	766
NOON	0	0	0	0	0
PM	61	884	0	0	825
Lanes	0	1	0	0	

Santa Monica Blvd — EASTBOUND

Movement	AM	NOON	PM	Lanes
Westbound departure	1370	0	1284	
U-Turn	0	0	1	0
Left	34	0	67	1
Through	743	0	924	2
Right	57	0	117	0

Santa Monica Blvd — WESTBOUND

Movement	Lanes	PM	NOON	AM
Right	0	42	0	11
Through	2	1211	0	1263
Left	1	112	0	126
U-Turn	0	1	0	0
Eastbound departure		1004	0	806

Wilton Pl — NORTHBOUND

	Southbound departure	U-Turn	Left	Through	Right
Lanes		0	0	1	0
PM	1113	0	11	716	79
NOON	0	0	0	0	0
AM	980	0	9	721	61

CONTROL

Signalized

	AM	NOON	PM
TEV	3922	0	4226
PHF	0.98		0.95

Cars (AM)

Approach	Left	Through	Right
Southbound	1	794	95
Eastbound	33	696	57
Westbound	121	1204	11
Northbound	9	714	60

HT (AM)

Approach	Left	Through	Right
Southbound	1	3	3
Eastbound	1	38	0
Westbound	5	49	0
Northbound	0	7	1

Cars (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

HT (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Cars (PM)

Approach	Left	Through	Right
Southbound	0	881	61
Eastbound	67	906	115
Westbound	112	1191	42
Northbound	11	714	79

HT (PM)

Approach	Left	Through	Right
Southbound	0	3	0
Eastbound	0	8	2
Westbound	0	11	0
Northbound	0	2	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	33	0	41
North leg	Westbound	31	0	48
West leg	Southbound	32	0	86
West leg	Northbound	52	0	67
East leg	Southbound	29	0	48
East leg	Northbound	52	0	31
South leg	Eastbound	111	0	121
South leg	Westbound	105	0	117
NW corner (diagonal)		0	0	0
NE corner (diagonal)		0	0	0
SW corner (diagonal)		0	0	0
SE corner (diagonal)		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wilton Pl & Santa Monica Blvd
City: Hollywood
Control: Signalized

Project ID: 19-05308-009
Date: 5/23/2019

Total

NS/EW Streets:	Wilton Pl				Wilton Pl				Santa Monica Blvd				Santa Monica Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	121	13	0	1	89	23	0	8	164	6	0	23	381	4	0	835
7:15 AM	2	178	16	0	1	139	38	0	10	172	7	0	27	354	1	0	945
7:30 AM	0	183	12	0	0	112	50	0	7	218	13	0	18	299	8	0	920
7:45 AM	1	188	21	0	1	166	37	0	9	197	12	0	15	239	7	0	893
8:00 AM	0	174	17	0	1	192	19	0	7	195	19	0	13	312	0	0	949
8:15 AM	7	186	13	0	0	200	32	0	14	199	10	0	32	296	4	0	993
8:30 AM	0	185	14	0	1	210	21	0	7	168	13	0	44	330	3	0	996
8:45 AM	2	176	17	0	0	195	26	0	6	181	15	0	37	325	4	0	984
9:00 AM	12	155	19	0	3	168	41	0	9	194	13	0	37	274	6	0	931
9:15 AM	13	138	13	0	5	183	28	0	5	189	14	0	19	309	3	0	919
9:30 AM	9	115	13	0	2	170	29	0	10	212	13	0	13	308	7	0	901
9:45 AM	18	113	13	0	2	177	29	0	7	183	15	0	15	310	8	0	890
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	66	1912	181	0	17	2001	373	0	99	2272	150	0	293	3737	55	0	11156
APPROACH %'s :	3.06%	88.56%	8.38%	0.00%	0.71%	83.69%	15.60%	0.00%	3.93%	90.12%	5.95%	0.00%	7.17%	91.48%	1.35%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	9	721	61	0	2	797	98	0	34	743	57	0	126	1263	11	0	3922
PEAK HR FACTOR :	0.321	0.969	0.897	0.000	0.500	0.949	0.766	0.000	0.607	0.933	0.750	0.000	0.716	0.957	0.688	0.000	0.984
	0.960				0.967				0.935				0.928				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	21	140	16	0	8	175	21	0	11	226	22	0	20	268	7	0	935
3:15 PM	13	135	15	0	7	213	14	0	11	236	21	0	19	259	6	0	949
3:30 PM	17	160	14	0	6	182	18	0	16	252	15	0	16	286	8	0	990
3:45 PM	10	142	24	0	4	158	12	0	15	241	21	0	17	280	10	0	934
4:00 PM	7	166	10	0	2	213	17	0	18	248	33	0	21	243	4	0	982
4:15 PM	2	173	13	0	0	233	16	0	16	230	25	0	23	276	10	0	1017
4:30 PM	3	144	19	0	0	235	21	0	11	243	28	0	21	290	6	0	1021
4:45 PM	2	194	27	0	0	245	23	0	12	247	28	0	18	304	7	0	1107
5:00 PM	4	185	22	0	0	235	20	0	22	216	30	0	24	284	13	0	1055
5:15 PM	0	170	18	0	0	226	14	0	15	207	27	0	34	282	13	0	1006
5:30 PM	5	169	18	0	0	236	9	0	12	224	26	1	31	316	9	0	1056
5:45 PM	2	192	21	0	0	187	18	0	18	277	34	0	23	329	7	1	1109
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	86	1970	217	0	27	2538	203	0	177	2847	310	1	267	3417	100	1	12161
APPROACH %'s :	3.78%	86.67%	9.55%	0.00%	0.98%	91.69%	7.33%	0.00%	5.31%	85.37%	9.30%	0.03%	7.05%	90.28%	2.64%	0.03%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	11	716	79	0	0	884	61	0	67	924	117	1	112	1211	42	1	4226
PEAK HR FACTOR :	0.550	0.932	0.898	0.000	0.000	0.936	0.763	0.000	0.761	0.834	0.860	0.250	0.824	0.920	0.808	0.250	0.953
	0.937				0.926				0.843				0.949				

Leg	Inbound Roadway (Origin Zone Name)	Outbound Roadway (Destination Zone Name)
North	North Leg - St Andrews Pl_IN-EH	North Leg - St Andrews Pl_OUT-EH
South	South Leg - St Andrews _IN EH	South Leg - St Andrews _OUT EH
East	East Leg - Santa Monica Bl - IN EH	East Leg - Santa Monica Bl - OUT EH
West	West Leg - Santa Monica Bl - In EH	West Leg - Santa Monica Bl - OUT EH

↑ **North**

Day Type: 1: Weekday (M-Th)

Start Time 08: 7am (7am-8am)

End Time 09: 8am (8am-9am)

rth Leg - St Andrews Pl_IN-

Out	In	Total
128	491	619

Right ↙	Thru ↓	Left ↘
281	41	169

West Leg - Santa Monica

Out	In	Total
3,569	2,248	5,817

Left ↗	Thru →	Right ↘
22	2,169	57

Right ↖	Thru ←	Left ↙
36	3,101	77

East Leg - Santa Monica I

Total	In	Out
5,664	3,214	2,450

Left ↖	Thru ↑	Right ↗
187	70	112

uth Leg - St Andrews _IN E

Out	In	Total
175	369	544

Day Type

1: Weekday (M-Th)

TURNING MOVEMENT COUNTS

	West Leg - Santa Monica Bl - In EH			East Leg - Santa Monica Bl - IN EH			South Leg - St Andrews _IN EH			North Leg - St Andrews Pl_IN-EH			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	369	26,620	899	1,065	27,871	714	726	340	928	1,309	596	2,190	63,627
01: 12am (12am-1am)	8	746	19	21	506	24	7	-	18	14	5	15	1,383
02: 1am (1am-2am)	4	493	7	14	334	15	5	2	26	11	5	10	926
03: 2am (2am-3am)	4	480	9	9	252	11	5	2	12	12	2	6	804
04: 3am (3am-4am)	6	256	7	10	224	7	11	-	5	6	3	7	542
05: 4am (4am-5am)	2	232	8	9	429	10	3	-	6	6	14	12	731
06: 5am (5am-6am)	3	323	14	10	919	15	2	2	7	13	9	97	1,414
07: 6am (6am-7am)	3	611	10	13	1,450	12	24	4	19	18	3	89	2,256
08: 7am (7am-8am)	8	1,078	25	37	1,571	17	118	37	66	73	12	127	3,169
09: 8am (8am-9am)	14	1,091	32	40	1,530	19	69	33	46	96	29	154	3,153
10: 9am (9am-10am)	13	1,053	23	50	1,350	15	35	22	43	75	39	147	2,865
11: 10am (10am-11am)	17	1,179	31	41	1,387	28	24	17	43	59	24	139	2,989
12: 11am (11am-12noon)	14	1,291	37	49	1,370	29	25	14	42	61	24	140	3,096
13: 12pm (12noon-1pm)	23	1,386	50	55	1,439	39	26	12	45	56	29	139	3,299
14: 1pm (1pm-2pm)	22	1,553	61	51	1,428	40	39	17	46	61	34	120	3,472
15: 2pm (2pm-3pm)	22	1,616	64	61	1,514	36	46	33	52	82	34	126	3,686
16: 3pm (3pm-4pm)	29	1,448	91	53	1,520	48	48	28	63	111	39	127	3,605
17: 4pm (4pm-5pm)	30	1,499	71	63	1,684	49	43	14	60	120	52	142	3,827
18: 5pm (5pm-6pm)	36	1,459	69	88	1,661	69	46	14	96	123	80	150	3,891
19: 6pm (6pm-7pm)	31	1,524	66	89	1,562	52	49	26	72	101	52	142	3,766
20: 7pm (7pm-8pm)	21	1,646	59	85	1,484	41	35	23	52	66	40	100	3,652
21: 8pm (8pm-9pm)	19	1,588	54	66	1,237	35	22	11	37	45	27	72	3,213
22: 9pm (9pm-10pm)	13	1,548	27	70	1,169	38	18	5	27	33	12	59	3,019
23: 10pm (10pm-11pm)	15	1,408	33	49	1,077	46	12	8	32	34	15	49	2,778
24: 11pm (11pm-12am)	13	1,089	29	34	787	32	12	3	24	27	8	29	2,087

TURNING MOVEMENT PERCENTAGE

	West Leg - Santa Monica Bl - In EH			East Leg - Santa Monica Bl - IN EH			South Leg - St Andrews _IN EH			North Leg - St Andrews Pl_IN-EH		
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	1%	95%	3%	4%	94%	2%	36%	17%	47%	32%	15%	53%
01: 12am (12am-1am)	1%	97%	2%	4%	92%	4%	28%	0%	72%	41%	15%	44%
02: 1am (1am-2am)	1%	98%	1%	4%	92%	4%	15%	6%	79%	42%	19%	38%
03: 2am (2am-3am)	1%	97%	2%	3%	93%	4%	26%	11%	63%	60%	10%	30%
04: 3am (3am-4am)	2%	95%	3%	4%	93%	3%	69%	0%	31%	38%	19%	44%
05: 4am (4am-5am)	1%	96%	3%	2%	96%	2%	33%	0%	67%	19%	44%	38%
06: 5am (5am-6am)	1%	95%	4%	1%	97%	2%	18%	18%	64%	11%	8%	82%
07: 6am (6am-7am)	0%	98%	2%	1%	98%	1%	51%	9%	40%	16%	3%	81%
08: 7am (7am-8am)	1%	97%	2%	2%	97%	1%	53%	17%	30%	34%	6%	60%
09: 8am (8am-9am)	1%	96%	3%	3%	96%	1%	47%	22%	31%	34%	10%	55%
10: 9am (9am-10am)	1%	97%	2%	4%	95%	1%	35%	22%	43%	29%	15%	56%
11: 10am (10am-11am)	1%	96%	3%	3%	95%	2%	29%	20%	51%	27%	11%	63%
12: 11am (11am-12noon)	1%	96%	3%	3%	95%	2%	31%	17%	52%	27%	11%	62%
13: 12pm (12noon-1pm)	2%	95%	3%	4%	94%	3%	31%	14%	54%	25%	13%	62%
14: 1pm (1pm-2pm)	1%	95%	4%	3%	94%	3%	38%	17%	45%	28%	16%	56%
15: 2pm (2pm-3pm)	1%	95%	4%	4%	94%	2%	35%	25%	40%	34%	14%	52%
16: 3pm (3pm-4pm)	2%	92%	6%	3%	94%	3%	35%	20%	45%	40%	14%	46%
17: 4pm (4pm-5pm)	2%	94%	4%	4%	94%	3%	37%	12%	51%	38%	17%	45%
18: 5pm (5pm-6pm)	2%	93%	4%	5%	91%	4%	29%	9%	62%	35%	23%	42%
19: 6pm (6pm-7pm)	2%	94%	4%	5%	92%	3%	33%	18%	49%	34%	18%	48%
20: 7pm (7pm-8pm)	1%	95%	3%	5%	92%	3%	32%	21%	47%	32%	19%	49%
21: 8pm (8pm-9pm)	1%	96%	3%	5%	92%	3%	31%	16%	53%	31%	19%	50%
22: 9pm (9pm-10pm)	1%	97%	2%	5%	92%	3%	36%	10%	54%	32%	12%	57%
23: 10pm (10pm-11pm)	1%	97%	2%	4%	92%	4%	23%	15%	62%	35%	15%	50%
24: 11pm (11pm-12am)	1%	96%	3%	4%	92%	4%	31%	8%	62%	42%	13%	45%

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South SB 101 Fwy Off Ramp

East/West Lexington Ave

Day: Tuesday Date: January 31, 2017 Weather: SUNNY

Hours: 6-10 & 3-7 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	94	13	5
BIKES	0	0	13	5
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	221	8.30	22	9.45	36	7.45
PM PK 15 MIN	0	0.00	219	15.00	57	18.45	32	16.45
AM PK HOUR	0	0.00	840	7.45	66	9.00	97	7.45
PM PK HOUR	0	0.00	790	15.00	185	18.00	100	16.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6-7	0	0	0	0
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
18-19	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6-7	374	0	57	431
7-8	521	0	170	691
8-9	638	0	197	835
9-10	487	0	297	784
15-16	580	0	210	790
16-17	557	0	196	753
17-18	565	0	193	758
18-19	584	0	205	789
TOTAL	4306	0	1525	5831

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
431	0	0	11	0
691	0	0	22	4
835	0	0	7	0
784	0	0	6	1
790	0	0	15	1
753	0	0	20	0
758	0	0	16	1
789	0	0	13	0
5831	0	0	110	7

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6-7	0	14	0	14
7-8	0	61	0	61
8-9	0	53	0	53
9-10	0	66	0	66
15-16	1	99	0	100
16-17	1	133	0	134
17-18	0	161	0	161
18-19	0	185	0	185
TOTAL	2	772	0	774

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6-7	0	9	0	9
7-8	0	83	0	83
8-9	0	74	0	74
9-10	0	64	0	64
15-16	0	48	0	48
16-17	0	100	0	100
17-18	0	65	0	65
18-19	0	59	0	59
TOTAL	0	502	0	502

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
23	0	0	0	0
144	10	0	0	0
127	6	0	1	0
130	1	0	2	0
148	7	0	2	0
234	8	0	4	0
226	4	1	0	0
244	6	2	1	0
1276	42	3	10	0

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

SB 101 Fwy Off Ramp and Lexington Ave , Hollywood

Date: 1/31/2017

Day: Tuesday

Project #: 17-5054-002

City: Hollywood

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	600 PM

Total Peak Hour Summary

CONTROL: 3-Way Stop (SB/EB/WB)

N-S street: SB 101 Fwy Off Ramp; E-W street: Lexington Ave

Southbound Approach

	Right	Thru	Left	Outbound (NB)
Lanes	1	0	1	
AM	211	0	629	0
NOON	0	0	0	0
PM	205	0	584	0

Eastbound Approach

	AM	NOON	PM	Lanes
Outbound (WB)	308	0	264	
Left	0	0	0	0
Thru	57	0	185	1
Right	0	0	0	0

Westbound Approach

	AM	NOON	PM	Lanes
Right	0	0	0	0
Thru	97	0	59	1
Left	0	0	0	0
Outbound (EB)	686	0	769	

Northbound Approach

	Outbound (SB)	Left	Thru	Right
AM	0	0	0	0
NOON	0	0	0	0
PM	0	0	0	0
Lanes		0	0	0

Count Periods	Start	End
AM	6:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	7:00 PM

Total Ins & Outs

Leg	Period	In	Out
North Leg	AM	840	0
North Leg	NOON	0	0
North Leg	PM	789	0
East Leg	AM	97	686
East Leg	NOON	0	0
East Leg	PM	59	769
West Leg	AM	57	308
West Leg	NOON	0	0
West Leg	PM	185	264
South Leg	AM	0	0
South Leg	NOON	0	0
South Leg	PM	0	0

Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	840	0	789
East Leg	783	0	828
West Leg	365	0	449
South Leg	0	0	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 **Day:** Tuesday

TOTALS

City: Hollywood **Date:** 1/31/2017

AM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
6:00 AM	0	0	0	89	0	9	0	3	0	0	1	0	102
6:15 AM	0	0	0	98	0	9	0	8	0	0	4	0	119
6:30 AM	0	0	0	96	0	18	0	0	0	0	1	0	115
6:45 AM	0	0	0	91	0	21	0	3	0	0	3	0	118
7:00 AM	0	0	0	93	0	22	0	13	0	0	10	0	138
7:15 AM	0	0	0	124	0	32	0	19	0	0	19	0	194
7:30 AM	0	0	0	150	0	53	0	14	0	0	18	0	235
7:45 AM	0	0	0	154	0	63	0	15	0	0	36	0	268
8:00 AM	0	0	0	166	0	37	0	14	0	0	12	0	229
8:15 AM	0	0	0	154	0	45	0	18	0	0	20	0	237
8:30 AM	0	0	0	155	0	66	0	10	0	0	29	0	260
8:45 AM	0	0	0	163	0	49	0	11	0	0	13	0	236
9:00 AM	0	0	0	122	0	69	0	14	0	0	10	0	215
9:15 AM	0	0	0	121	0	65	0	14	0	0	21	0	221
9:30 AM	0	0	0	123	0	76	0	16	0	0	15	0	230
9:45 AM	0	0	0	121	0	87	0	22	0	0	18	0	248

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	2020	0	721	0	194	0	0	230	0	3165
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	73.70%	0.00%	26.30%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	0	0	0	629	0	211	0	57	0	0	97	0	994
PEAK HR FACTOR :	0.000			0.950			0.792			0.674			0.927

CONTROL : 3-Way Stop (SB/EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 | **Day:** Tuesday

TOTALS

City: Hollywood | **Date:** 1/31/2017

PM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
3:00 PM	0	0	0	154	0	65	0	20	0	0	8	0	247
3:15 PM	0	0	0	153	0	54	0	19	0	0	5	0	231
3:30 PM	0	0	0	140	0	53	0	26	0	0	16	0	235
3:45 PM	0	0	0	133	0	38	1	34	0	0	19	0	225
4:00 PM	0	0	0	131	0	38	0	32	0	0	26	0	227
4:15 PM	0	0	0	143	0	40	1	21	0	0	25	0	230
4:30 PM	0	0	0	152	0	47	0	35	0	0	17	0	251
4:45 PM	0	0	0	131	0	71	0	45	0	0	32	0	279
5:00 PM	0	0	0	150	0	38	0	35	0	0	16	0	239
5:15 PM	0	0	0	121	0	59	0	46	0	0	22	0	248
5:30 PM	0	0	0	150	0	57	0	41	0	0	10	0	258
5:45 PM	0	0	0	144	0	39	0	39	0	0	17	0	239
6:00 PM	0	0	0	150	0	46	0	43	0	0	11	0	250
6:15 PM	0	0	0	143	0	34	0	36	0	0	24	0	237
6:30 PM	0	0	0	145	0	61	0	49	0	0	16	0	271
6:45 PM	0	0	0	146	0	64	0	57	0	0	8	0	275

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	2286	0	804	2	578	0	0	272	0	3942
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	73.98%	0.00%	26.02%	0.34%	99.66%	0.00%	0.00%	100.00%	0.00%	

PEAK HR START TIME :	600 PM												TOTAL
PEAK HR VOL :	0	0	0	584	0	205	0	185	0	0	59	0	1033
PEAK HR FACTOR :		0.000			0.939			0.811			0.615		0.939

CONTROL : 3-Way Stop (SB/EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 **Day:** Tuesday

BIKES

City: Hollywood **Date:** 1/31/2017

AM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	1	0	0	4	0	5
APPROACH %'s :							0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	

PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :		0.000			0.000			0.000			0.000		0.000

CONTROL : 3-Way Stop (SB/EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 **Day:** Tuesday

BIKES

City: Hollywood **Date:** 1/31/2017

PM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	12	0	0	1	0	13
APPROACH %'s :							0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	

PEAK HR START TIME :	600 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	4	0	0	0	0	4
PEAK HR FACTOR :	0.000			0.000			0.333			0.000			0.333

CONTROL : 3-Way Stop (SB/EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 **Day:** Tuesday

BUSES

City: Hollywood **Date:** 1/31/2017

AM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :													

PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :		0.000			0.000			0.000			0.000		0.000

CONTROL : 3-Way Stop (SB/EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5054-002 | **Day:** Tuesday

BUSES

City: Hollywood | **Date:** 1/31/2017

PM

NS/EW Streets:	SB 101 Fwy Off Ramp			SB 101 Fwy Off Ramp			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	0	1	0	1	0	0	1	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :													

PEAK HR START TIME :	600 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 3-Way Stop (SB/EB/WB)

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Western Ave

East/West Lexington Ave

Day: Wednesday Date: October 21, 2015 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	141	64	50	2
BIKES	60	51	7	2
BUSES	74	73	8	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	312	7.30	257	8.15	137	7.45	4	8.30
PM PK 15 MIN	333	15.30	241	17.00	185	16.45	6	15.45
AM PK HOUR	1154	7.15	958	8.00	518	7.15	10	8.30
PM PK HOUR	1272	16.30	897	16.15	689	15.30	11	15.30

NORTHBOUND Approach / **SOUTHBOUND Approach** / **TOTAL** / **XING S/L** / **XING N/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	22	1125	0	1147	*7-8*	0	790	43	833	1980	0	0	21	1
8-9	13	1053	0	1066	*8-9*	0	887	71	958	2024	0	0	12	0
9-10	11	943	0	954	*9-10*	0	836	54	890	1844	0	0	9	0
15-16	7	1198	0	1205	*15-16*	0	828	39	867	2072	0	0	3	0
16-17	27	1207	0	1234	*16-17*	0	785	52	837	2071	1	0	8	0
17-18	26	1158	0	1184	*17-18*	0	752	36	788	1972	1	0	9	1
TOTAL	106	6684	0	6790	TOTAL	0	4878	295	5173	11963	2	0	62	2

EASTBOUND Approach / **WESTBOUND Approach** / **TOTAL** / **XING W/L** / **XING E/L**

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	75	0	432	507	*7-8*	1	0	1	2	509	36	8	37	3
8-9	65	0	433	498	*8-9*	3	2	3	8	506	20	0	31	1
9-10	63	0	454	517	*9-10*	3	0	5	8	525	47	0	32	0
15-16	119	0	545	664	*15-16*	0	0	10	10	674	59	27	23	3
16-17	106	0	582	688	*16-17*	1	1	4	6	694	61	16	33	1
17-18	97	0	473	570	*17-18*	4	0	1	5	575	81	36	40	0
TOTAL	525	0	2919	3444	TOTAL	12	3	24	39	3483	304	87	196	8

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Western Ave and Lexington Ave , Hollywood

Date:	10/21/2015
Day:	Wednesday

Project #:	15-5690-001
City:	Hollywood

N

Western Ave

Lexington Ave

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Total Peak Hour Summary

Southbound Approach

Lanes	0	2	0	
AM	70	855	0	1183
NOON	0	0	0	0
PM	41	848	0	1354

Eastbound Approach

	AM	NOON	PM
	93	0	73

Lanes	AM	NOON	PM
1.5	73	0	111
0	0	0	0
0.5	443	0	535

CONTROL

Signalized

Westbound Approach

AM	NOON	PM	Lanes
1	0	2	0
1	0	1	1
0	0	3	0

AM	NOON	PM
0	0	0

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	1298	22	1109	0
NOON	0	0	0	0
PM	1386	31	1241	0
Lanes		1	2	0

Total Ins & Outs

North Leg

AM	925	1183	
NOON	0	0	
PM	889	1354	

West Leg

AM	NOON	PM
93	0	73
516	0	646

East Leg

AM	NOON	PM
2	0	6
0	0	0

South Leg

AM	1298	1131
NOON	0	0
PM	1386	1272

Total Volume Per Leg

North Leg

AM	2108
NOON	0
PM	2243

West Leg

AM	NOON	PM
609	0	719

East Leg

AM	NOON	PM
2	0	6

South Leg

AM	2429
NOON	0
PM	2658

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 **Day:** Wednesday

TOTALS

City: Hollywood **Date:** 10/21/2015

AM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
7:00 AM	5	257	0	0	212	3	13	0	100	0	0	1	591
7:15 AM	3	278	0	0	167	10	20	0	108	1	0	0	587
7:30 AM	7	305	0	0	202	16	18	0	111	0	0	0	659
7:45 AM	7	285	0	0	209	14	24	0	113	0	0	0	652
8:00 AM	7	262	0	0	207	20	16	0	108	0	1	1	622
8:15 AM	1	257	0	0	237	20	15	0	111	0	0	0	641
8:30 AM	1	273	0	0	213	22	11	0	111	3	0	1	635
8:45 AM	4	261	0	0	230	9	23	0	103	0	1	1	632
9:00 AM	6	239	0	0	187	11	13	0	116	1	0	0	573
9:15 AM	2	234	0	0	235	20	14	0	117	1	0	2	625
9:30 AM	1	207	0	0	211	13	19	0	113	1	0	3	568
9:45 AM	2	263	0	0	203	10	17	0	108	0	0	0	603

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	46	3121	0	0	2513	168	203	0	1319	7	2	9	7388
APPROACH %'s :	1.45%	98.55%	0.00%	0.00%	93.73%	6.27%	13.34%	0.00%	86.66%	38.89%	11.11%	50.00%	

PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	22	1109	0	0	855	70	73	0	443	0	1	1	2574
PEAK HR FACTOR :		0.906			0.900			0.942			0.250		0.976

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 | **Day:** Wednesday

TOTALS

City: Hollywood | **Date:** 10/21/2015

PM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
3:00 PM	0	320	0	0	189	9	32	0	126	0	0	1	677
3:15 PM	2	274	0	0	208	12	32	0	126	0	0	2	656
3:30 PM	1	332	0	0	215	11	24	0	147	0	0	1	731
3:45 PM	4	272	0	0	216	7	31	0	146	0	0	6	682
4:00 PM	4	297	0	0	164	17	26	0	145	0	0	1	654
4:15 PM	6	285	0	0	223	14	26	0	144	1	0	2	701
4:30 PM	7	312	0	0	209	13	16	0	146	0	0	1	704
4:45 PM	10	313	0	0	189	8	38	0	147	0	1	0	706
5:00 PM	6	297	0	0	233	8	30	0	118	3	0	1	696
5:15 PM	8	319	0	0	217	12	27	0	124	0	0	0	707
5:30 PM	6	280	0	0	174	9	21	0	115	0	0	0	605
5:45 PM	6	262	0	0	128	7	19	0	116	1	0	0	539

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	60	3563	0	0	2365	127	322	0	1600	5	1	15	8058
APPROACH %'s :	1.66%	98.34%	0.00%	0.00%	94.90%	5.10%	16.75%	0.00%	83.25%	23.81%	4.76%	71.43%	

PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	31	1241	0	0	848	41	111	0	535	3	1	2	2813
PEAK HR FACTOR :		0.972			0.922			0.873			0.375		0.995

CONTROL : Signalized

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 15-5690-001
N/S Street: Western Ave
E/W Street: Lexington Ave
DATE: 10/21/2015 DAY: Wednesday
CITY: Hollywood

A M

Adult Pedestrians

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	5	0	0	8	2	4	2
7:15 AM	1	4	0	0	8	3	6	4
7:30 AM	1	5	0	0	6	2	6	3
7:45 AM	2	3	0	0	6	2	7	4
8:00 AM	0	0	0	0	5	4	7	0
8:15 AM	0	3	0	0	6	1	1	4
8:30 AM	2	1	0	0	2	6	2	1
8:45 AM	1	5	0	0	3	4	3	2
9:00 AM	1	5	0	0	6	3	2	11
9:15 AM	1	1	0	0	1	5	3	7
9:30 AM	0	0	0	0	5	5	6	8
9:45 AM	0	1	0	0	5	2	7	3
TOTALS	**9**	**33**	**0**	**0**	**61**	**39**	**54**	**49**

School-Aged Pedestrians

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	1	1	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	1	0	0	0
7:45 AM	1	0	0	0	1	0	6	0
8:00 AM	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**0**	**2**	**2**	**8**	**0**

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	1	6	2
3:15 PM	1	1	0	0	5	6	6	14
3:30 PM	0	0	0	0	0	3	6	8
3:45 PM	1	0	0	0	1	7	4	13
4:00 PM	1	1	0	0	8	6	6	9
4:15 PM	0	0	0	1	4	2	6	3
4:30 PM	1	2	0	0	3	2	7	13
4:45 PM	0	3	0	0	4	4	5	12
5:00 PM	1	1	0	0	3	5	10	11
5:15 PM	1	2	0	0	6	6	10	14
5:30 PM	4	0	1	0	2	6	13	13
5:45 PM	0	0	0	0	8	4	2	8
TOTALS	**10**	**10**	**1**	**1**	**44**	**52**	**81**	**120**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	8
3:15 PM	0	0	0	0	0	0	3	12
3:30 PM	0	0	0	0	0	0	0	4
3:45 PM	0	0	0	0	0	3	0	0
4:00 PM	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	7
4:30 PM	0	0	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0	1	7
5:00 PM	0	0	0	0	0	0	6	0
5:15 PM	0	0	0	0	0	0	1	9
5:30 PM	1	0	0	0	0	0	9	1
5:45 PM	0	0	0	0	0	0	6	4
TOTALS	**1**	**0**	**0**	**0**	**1**	**3**	**27**	**52**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 **Day:** Wednesday

BIKES

City: Hollywood **Date:** 10/21/2015

AM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
7:00 AM	0	1	0	0	4	0	0	0	0	0	0	0	5
7:15 AM	0	2	0	0	1	0	1	0	0	0	0	0	4
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	1	6	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	3	0	0	0	1	0	0	0	0	0	0	4
9:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
9:15 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
9:30 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
9:45 AM	0	1	0	0	1	1	0	0	0	0	0	0	3

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	1	21	0	0	12	2	2	0	0	0	1	0	39
APPROACH %'s :	4.55%	95.45%	0.00%	0.00%	85.71%	14.29%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	

PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	1	10	0	0	0	0	1	0	0	0	0	0	12
PEAK HR FACTOR :	0.393			0.000			0.250			0.000			0.429

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 | **Day:** Wednesday

BIKES

City: Hollywood | **Date:** 10/21/2015

PM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
3:00 PM	0	4	0	0	3	0	0	0	1	0	0	0	8
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
3:30 PM	0	6	0	0	1	0	0	0	1	0	0	0	8
3:45 PM	0	4	0	0	4	0	0	0	0	0	0	0	8
4:00 PM	0	7	0	0	2	0	0	0	0	0	0	0	9
4:15 PM	0	1	0	0	3	1	1	0	0	0	0	0	6
4:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
4:45 PM	0	2	0	0	4	1	0	0	0	0	1	0	8
5:00 PM	0	4	0	0	7	1	0	0	0	0	0	0	12
5:15 PM	0	1	0	0	3	1	0	1	0	0	0	0	6
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:45 PM	0	6	0	0	1	0	0	0	1	0	0	0	8

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	38	0	0	33	4	1	1	3	0	1	0	81
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	89.19%	10.81%	20.00%	20.00%	60.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	8	0	0	17	3	0	1	0	0	1	0	30
PEAK HR FACTOR :		0.500			0.625			0.250			0.250		0.625

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 **Day:** Wednesday

BUSES

City: Hollywood **Date:** 10/21/2015

AM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
7:00 AM	0	4	0	0	2	0	0	0	0	0	0	0	6
7:15 AM	0	6	0	0	3	0	0	0	4	0	0	0	13
7:30 AM	0	3	0	0	2	0	0	0	1	0	0	0	6
7:45 AM	0	2	0	0	6	0	0	0	0	0	0	0	8
8:00 AM	0	8	0	0	3	0	0	0	0	0	0	0	11
8:15 AM	0	2	0	0	1	0	0	0	1	0	0	0	4
8:30 AM	0	6	0	0	3	0	0	0	1	0	0	0	10
8:45 AM	0	5	0	0	6	0	0	0	0	0	0	0	11
9:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
9:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
9:30 AM	0	1	0	0	4	0	0	0	0	0	0	0	5
9:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	4

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	42	0	0	35	0	0	0	7	0	0	0	84
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%				

PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	0	15	0	0	12	0	0	0	2	0	0	0	29
PEAK HR FACTOR :	0.469			0.500			0.500			0.000			0.659

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5690-001 **Day:** Wednesday

BUSES

City: Hollywood **Date:** 10/21/2015

PM

NS/EW Streets:	Western Ave			Western Ave			Lexington Ave			Lexington Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	1.5	0	0.5	0	1	0	
3:00 PM	0	6	0	0	2	0	0	0	0	0	0	0	8
3:15 PM	0	2	0	0	6	0	0	0	0	0	0	0	8
3:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
3:45 PM	0	2	0	0	5	0	0	0	0	0	0	0	7
4:00 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
4:15 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
4:30 PM	0	3	0	0	2	0	0	0	0	0	0	0	5
4:45 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
5:00 PM	0	2	0	0	6	0	0	0	0	0	0	0	8
5:15 PM	0	1	0	0	3	0	0	0	1	0	0	0	5
5:30 PM	0	6	0	0	1	0	0	0	0	0	0	0	7
5:45 PM	0	1	0	0	5	0	0	0	0	0	0	0	6

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	32	0	0	38	0	0	0	1	0	0	0	71
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%				

PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	9	0	0	12	0	0	0	1	0	0	0	22
PEAK HR FACTOR :		0.750			0.500			0.250			0.000		0.688

CONTROL : Signalized

Location ID:	3				
North/South:	Western Avenue			Date:	05/23/18
East/West:	Santa Monica Blvd			City:	Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	28	213	25	8	286	26	24	231	19	9	139	12	1020
7:15	21	247	22	11	246	27	26	254	18	18	175	16	1081
7:30	26	251	31	9	221	31	34	243	21	15	206	12	1100
7:45	23	224	28	10	184	30	48	233	22	17	200	15	1034
8:00	22	258	24	8	186	38	46	229	27	25	197	14	1074
8:15	15	266	19	9	218	37	41	215	15	23	213	13	1084
8:30	19	257	26	11	267	31	43	197	19	24	201	19	1114
8:45	23	249	34	10	257	30	31	169	24	27	176	11	1041
9:00	34	233	28	9	246	21	24	178	19	31	181	16	1020
9:15	44	235	29	9	249	19	31	177	15	25	213	14	1060
9:30	41	251	22	12	258	16	26	167	20	17	197	18	1045
9:45	30	264	23	12	253	16	29	169	14	18	180	17	1025

Total Volume:	326	2948	311	118	2871	322	403	2462	233	249	2278	177	12698
Approach %	9%	82%	9%	4%	87%	10%	13%	79%	8%	9%	84%	7%	

Peak Hr Begin:	8:00												
PHV	79	1030	103	38	928	136	161	810	85	99	787	57	4313
PHF		0.990			0.892			0.874			0.947		0.968

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	14	240	34	15	251	21	32	239	18	26	245	19	1154
15:15	19	231	31	19	243	37	38	254	16	27	234	21	1170
15:30	21	237	25	14	234	39	34	238	27	31	241	19	1160
15:45	23	259	33	12	239	34	39	236	23	31	216	21	1166
16:00	15	257	34	11	234	38	51	234	22	27	204	28	1155
16:15	19	239	36	19	217	41	59	231	27	21	201	19	1129
16:30	19	246	29	15	246	31	55	231	34	29	206	19	1160
16:45	17	236	21	9	256	39	46	246	39	34	204	24	1171
17:00	8	251	24	13	271	44	57	267	21	34	214	23	1227
17:15	9	254	29	17	234	43	45	245	21	32	211	24	1164
17:30	15	259	31	12	244	48	44	244	30	33	213	26	1199
17:45	13	247	27	11	253	47	46	251	24	19	221	19	1178

Total Volume:	192	2956	354	167	2922	462	546	2916	302	344	2610	262	14033
Approach %	5%	84%	10%	5%	82%	13%	15%	77%	8%	11%	81%	8%	

Peak Hr Begin:	17:00												
PHV	45	1011	111	53	1002	182	192	1007	96	118	859	92	4768
PHF		0.957			0.943			0.938			0.983		0.971

	North Leg		East Leg		South Leg		West Leg	
15 Min Interval	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	34	3	10	0	31	1	9	0
7:15	49	1	15	1	37	2	11	1
7:30	41	4	13	1	51	0	15	1
7:45	48	2	19	1	46	1	17	0
8:00	46	3	21	0	53	1	12	0
8:15	34	1	23	0	42	0	21	1
8:30	38	2	25	1	44	0	23	0
8:45	31	1	22	0	53	1	21	0
9:00	39	1	42	0	51	0	18	1
9:15	34	1	23	0	39	1	19	2
9:30	38	2	21	0	34	1	34	1
9:45	39	1	29	1	46	1	21	0

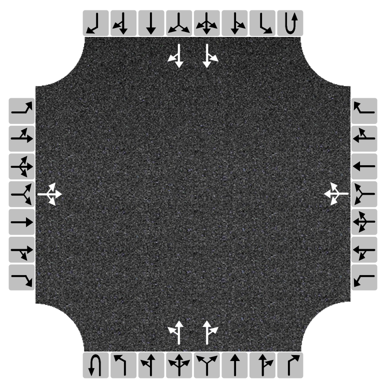
	North Leg		East Leg		South Leg		West Leg	
15 Min Interval	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	43	2	21	0	44	1	42	0
15:15	44	3	24	1	46	0	34	0
15:30	34	1	29	2	58	1	44	1
15:45	39	0	31	0	64	0	49	0
16:00	54	1	48	1	75	2	46	0
16:15	44	2	42	1	81	1	51	1
16:30	55	1	46	3	64	0	59	1
16:45	41	0	49	0	49	1	41	0
17:00	34	3	31	2	44	1	34	0
17:15	50	1	29	1	49	3	38	1
17:30	50	1	34	1	59	2	33	0
17:45	44	1	38	0	81	0	35	0

HCS WORKSHEETS

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LA MIRANDA AVE
Analysis Year	2022	North/South Street	WILTON PL
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		4	6	22		14	5	23		30	674	39		20	1046	43
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.3	6.3	6.3		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.30	6.30	6.30		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

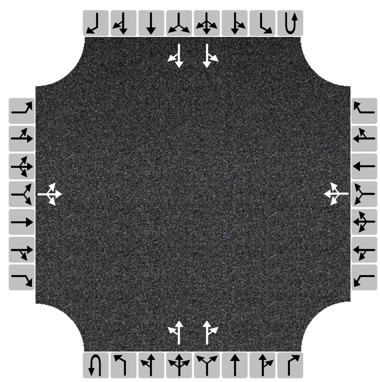
Flow Rate, v (veh/h)			34				44			32				21		
Capacity, c (veh/h)			137				119			604				860		
v/c Ratio			0.25				0.37			0.05				0.02		
95% Queue Length, Q_{95} (veh)			0.9				1.5			0.2				0.1		
Control Delay (s/veh)			39.6				52.1			11.3				9.3		
Level of Service, LOS			E				F			B				A		
Approach Delay (s/veh)	39.6				52.1				0.9				0.5			
Approach LOS	E				F											

 HCS7™ TWSC Version 7.4 Generated: 8/19/2022 8:34:51 PM
1 LA MIRANDA & WILTON EXISTING AM PEAK HOUR.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8/15/22	East/West Street	LA MIRANDA AVE
Analysis Year	2022	North/South Street	WILTON PL
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING+PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		4	6	71		14	5	23		38	678	39		20	1070	43
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

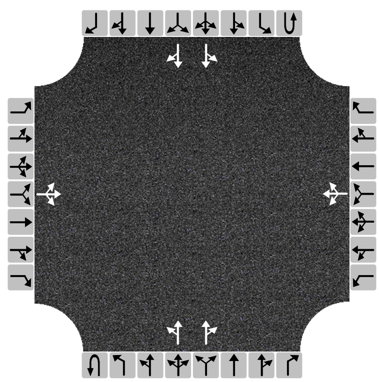
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			86				45			40				21		
Capacity, c (veh/h)			183				89			575				837		
v/c Ratio			0.47				0.50			0.07				0.03		
95% Queue Length, Q_{95} (veh)			2.3				2.2			0.2				0.1		
Control Delay (s/veh)			41.2				80.9			11.7				9.4		
Level of Service, LOS			E				F			B				A		
Approach Delay (s/veh)	41.2				80.9				1.2				0.5			
Approach LOS	E				F											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8/15/2022	East/West Street	LA MIRANDA AVE
Analysis Year	2026	North/South Street	WILTON PL
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WO PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		4	7	24		15	6	25		31	724	42		21	1119	45
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.0				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.00				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			37				48			33				22		
Capacity, c (veh/h)			100				92			583				819		
v/c Ratio			0.37				0.52			0.06				0.03		
95% Queue Length, Q_{95} (veh)			1.5				2.3			0.2				0.1		
Control Delay (s/veh)			60.8				80.7			11.5				9.5		
Level of Service, LOS			F				F			B				A		
Approach Delay (s/veh)	60.8				80.7				0.9				0.5			
Approach LOS	F				F											

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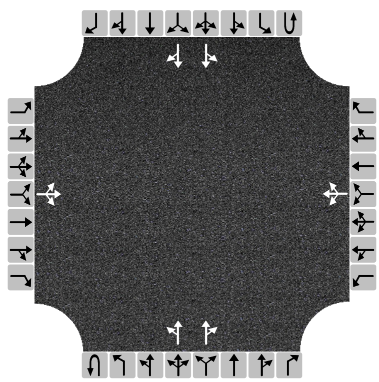
1 LA MIRANDA & WILTON FUTURE WO PROJECT AM PEAK HOUR.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8/15/2022	East/West Street	LA MIRANDA AVE
Analysis Year	2026	North/South Street	WILTON PL
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		4	7	73		15	6	25		39	728	42		21	1143	45
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

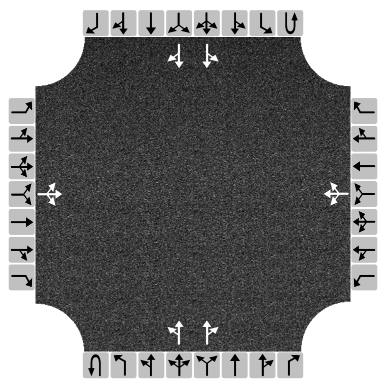
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			88				48			41				22		
Capacity, c (veh/h)			152				70			542				802		
v/c Ratio			0.58				0.69			0.08				0.03		
95% Queue Length, Q_{95} (veh)			3.0				3.1			0.2				0.1		
Control Delay (s/veh)			57.3				130.2			12.2				9.6		
Level of Service, LOS			F				F			B				A		
Approach Delay (s/veh)	57.3				130.2				1.3				0.6			
Approach LOS	F				F											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LA MIRANDA AVE
Analysis Year	2022	North/South Street	WILTON PL
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		30	17	51		13	9	14		37	689	26		9	826	13
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			103				38			39				9		
Capacity, c (veh/h)			138				113			770				860		
v/c Ratio			0.75				0.33			0.05				0.01		
95% Queue Length, Q_{95} (veh)			4.4				1.3			0.2				0.0		
Control Delay (s/veh)			83.8				51.9			9.9				9.2		
Level of Service, LOS			F				F			A				A		
Approach Delay (s/veh)	83.8				51.9				0.8				0.2			
Approach LOS	F				F											

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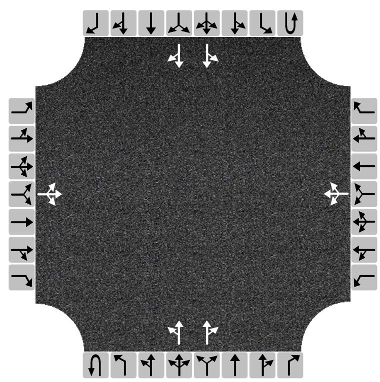
1 LA MIRANDA & WILTON EXISTING PM PEAK HOUR.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LA MIRANDA AVE
Analysis Year	2022	North/South Street	WILTON PL
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING+PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		30	17	63		13	9	14		78	710	26		8	832	13
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Approach	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

Approach	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Flow Rate, v (veh/h)			116				38			82				8		
Capacity, c (veh/h)			111				78			753				829		
v/c Ratio			1.04				0.49			0.11				0.01		
95% Queue Length, Q_{95} (veh)			6.9				2.0			0.4				0.0		
Control Delay (s/veh)			171.4				89.4			10.4				9.4		
Level of Service, LOS			F				F			B				A		
Approach Delay (s/veh)	171.4				89.4				1.7				0.2			
Approach LOS	F				F											

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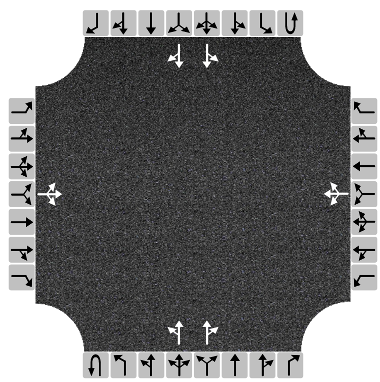
1 LA MIRANDA & WILTON EXISTING+PROJECT PM PEAK HOUR.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LA MIRANDA AVE
Analysis Year	2026	North/South Street	WILTON PL
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITHOUT PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		31	18	54		13	9	15		39	745	27		9	884	13
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Flow Rate, v (veh/h)			108				39			41				9		
Capacity, c (veh/h)			115				93			731				817		
v/c Ratio			0.94				0.42			0.06				0.01		
95% Queue Length, Q_{95} (veh)			6.0				1.7			0.2				0.0		
Control Delay (s/veh)			138.6				69.4			10.2				9.5		
Level of Service, LOS			F				F			B				A		
Approach Delay (s/veh)	138.6				69.4				0.9				0.2			
Approach LOS	F				F											

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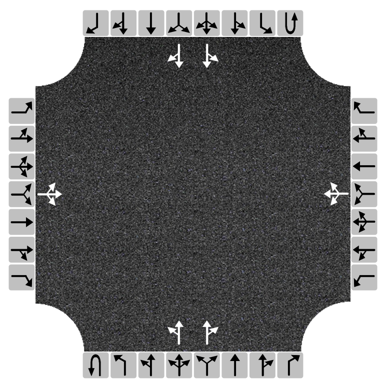
1 LA MIRANDA & WILTON FUTURE WO PM PEAK HOUR.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	1
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LA MIRANDA AVE
Analysis Year	2026	North/South Street	WILTON PL
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume, V (veh/h)		31	18	66		13	9	15		80	766	27		9	890	13
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	6.90		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			121				39			84				9		
Capacity, c (veh/h)			88				57			703				786		
v/c Ratio			1.38				0.68			0.12				0.01		
95% Queue Length, Q_{95} (veh)			9.1				2.8			0.4				0.0		
Control Delay (s/veh)			311.8				151.5			10.8				9.6		
Level of Service, LOS			F				F			B				A		
Approach Delay (s/veh)	311.8				151.5				1.9				0.2			
Approach LOS	F				F											

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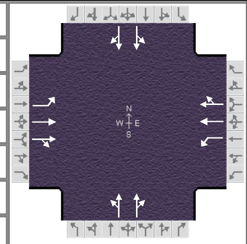
1 LA MIRANDA & WILTON FUTURE WITH PM PEAK HOUR.xtw

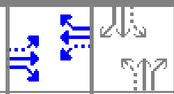
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.98
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton EXISTING AM PEAK.xus		
Project Description	EXISTING				

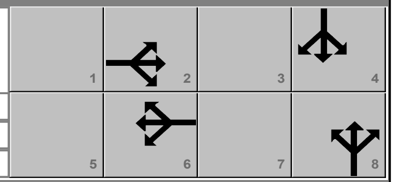


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	35	768	59	130	1305	11	9	745	63	2	823	101

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	31.9	20.1	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



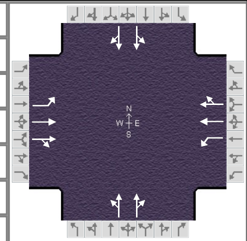
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		35.9		35.9		24.1		24.1
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s						16.8		16.6
Green Extension Time (g_e), s		0.0		0.0		3.3		3.3
Phase Call Probability						1.00		1.00
Max Out Probability						0.25		0.25

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	36	440	404	133	687	656	445		389	509		436
Adjusted Saturation Flow Rate (s), veh/h/ln	410	1870	1716	648	1870	1786	1822		1642	1898		1626
Queue Service Time (g_s), s	4.2	8.7	8.7	9.5	16.3	16.3	0.2		12.4	0.0		14.6
Cycle Queue Clearance Time (g_c), s	20.6	8.7	8.7	18.1	16.3	16.3	14.8		12.4	14.6		14.6
Green Ratio (g/C)	0.53	0.53	0.53	0.53	0.53	0.53	0.34		0.34	0.34		0.34
Capacity (c), veh/h	226	993	912	370	993	949	673		551	697		546
Volume-to-Capacity Ratio (X)	0.158	0.443	0.443	0.358	0.691	0.692	0.661		0.706	0.730		0.799
Back of Queue (Q), ft/ln (85 th percentile)	20.5	125.5	116.3	66	223.3	212.9	173.8		157	205.5		180.2
Back of Queue (Q), veh/ln (85 th percentile)	0.8	4.9	4.7	2.6	8.8	8.5	7.0		6.3	8.2		7.2
Queue Storage Ratio (RQ) (85 th percentile)	0.23	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	18.1	8.6	8.6	14.2	10.4	10.4	17.3		17.4	18.1		18.1
Incremental Delay (d_2), s/veh	1.5	1.4	1.6	2.7	3.9	4.1	0.4		0.6	1.1		1.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (d), s/veh	19.6	10.1	10.2	16.9	14.4	14.6	17.7		18.0	19.1		19.1
Level of Service (LOS)	B	B	B	B	B	B	B		B	B		B
Approach Delay, s/veh / LOS	10.5	B		14.7	B		17.8	B		19.1	B	
Intersection Delay, s/veh / LOS	15.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.06	B	2.06	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.21	A	1.70	B	1.18	A	1.27	A

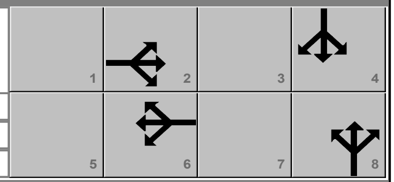
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.98
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton EXISTING+PROJECT AM PEAK.xus		
Project Description	EXISTING + 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	108	768	59	130	1305	11	9	769	63	2	827	113

Signal Information										
Cycle, s	60.0	Reference Phase	2	Green	31.5	20.5	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
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		2		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		35.5		35.5		24.5		24.5
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						17.1		16.9
Green Extension Time (g_e), s		0.0		0.0		3.4		3.4
Phase Call Probability						1.00		1.00
Max Out Probability						0.28		0.27

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	110	441	403	133	687	656	458		400	520		441
Adjusted Saturation Flow Rate (*s*), veh/h/ln	409	1870	1708	644	1870	1785	1823		1642	1898		1612
Queue Service Time (g_s), s	14.9	8.8	8.8	9.7	16.5	16.6	0.2		12.7	0.0		14.9
Cycle Queue Clearance Time (g_c), s	31.5	8.8	8.8	18.5	16.5	16.6	15.1		12.7	14.9		14.9
Green Ratio (*g/C*)	0.53	0.53	0.53	0.53	0.53	0.53	0.34		0.34	0.34		0.34
Capacity (*c*), veh/h	222	982	897	364	982	937	684		561	709		551
Volume-to-Capacity Ratio (*X*)	0.497	0.449	0.449	0.365	0.699	0.700	0.669		0.714	0.734		0.801
Back of Queue (*Q*), ft/ln (85 th percentile)	83.3	127.6	117.9	67.4	227.4	216.9	178.2		160.5	209.6		181.7
Back of Queue (*Q*), veh/ln (85 th percentile)	3.3	5.0	4.7	2.7	9.0	8.7	7.1		6.4	8.4		7.3
Queue Storage Ratio (*RQ*) (85 th percentile)	0.95	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	23.1	8.9	8.9	14.6	10.7	10.7	17.1		17.2	17.9		17.9
Incremental Delay (d_2), s/veh	7.8	1.5	1.6	2.8	4.1	4.3	0.4		0.6	1.2		1.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	30.9	10.3	10.5	17.4	14.8	15.0	17.6		17.8	19.1		19.0
Level of Service (LOS)	C	B	B	B	B	B	B		B	B		B
Approach Delay, s/veh / LOS	12.8	B		15.2	B		17.7	B		19.0	B	
Intersection Delay, s/veh / LOS	16.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.07	B	2.07	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.27	A	1.70	B	1.20	A	1.28	A

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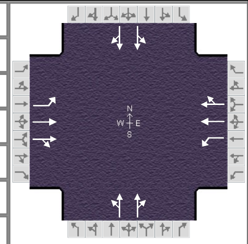
HCS7 Signalized Intersection Results Summary

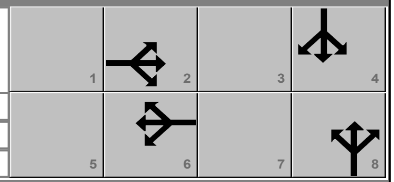
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.98
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton FUTURE WO PROJECT AM PEA…		
Project Description	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	38	829	64	150	1457	19	10	796	81	3	872	120

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	32.1	19.9	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		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		36.1		36.1		23.9		23.9
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s						19.6		18.3
Green Extension Time (g_e), s		0.0		0.0		0.2		1.0
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	39	475	436	153	771	736	485		420	549		467
Adjusted Saturation Flow Rate (*s*), veh/h/ln	351	1870	1715	609	1870	1781	1614		1623	1896		1613
Queue Service Time (g_s), s	5.9	9.5	9.5	12.5	19.5	19.6	1.3		14.0	0.4		16.3
Cycle Queue Clearance Time (g_c), s	25.5	9.5	9.5	22.0	19.5	19.6	17.6		14.0	16.3		16.3
Green Ratio (*g/C*)	0.54	0.54	0.54	0.54	0.54	0.54	0.33		0.33	0.33		0.33
Capacity (*c*), veh/h	193	1002	918	350	1002	954	596		537	688		534
Volume-to-Capacity Ratio (*X*)	0.201	0.475	0.475	0.438	0.769	0.771	0.814		0.782	0.797		0.874
Back of Queue (*Q*), ft/ln (85 th percentile)	25.4	134.8	124.8	82.2	267.7	255.6	229.9		199.6	254		254
Back of Queue (*Q*), veh/ln (85 th percentile)	1.0	5.3	5.0	3.3	10.5	10.2	9.2		8.0	10.2		10.2
Queue Storage Ratio (*RQ*) (85 th percentile)	0.29	0.00	0.00	0.93	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	21.1	8.7	8.7	15.5	11.0	11.0	18.2		18.1	18.9		18.9
Incremental Delay (d_2), s/veh	2.3	1.6	1.8	3.9	5.7	6.0	7.8		6.5	6.0		13.8
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	23.4	10.3	10.4	19.5	16.7	17.0	26.0		24.6	24.8		32.7
Level of Service (LOS)	C	B	B	B	B	B	C		C	C		C
Approach Delay, s/veh / LOS	10.9	B		17.1	B		25.4	C		28.5	C	
Intersection Delay, s/veh / LOS	20.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.06	B	2.06	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.27	A	1.86	B	1.23	A	1.33	A

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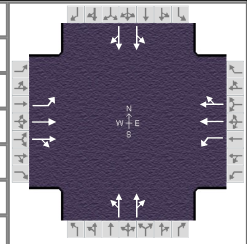
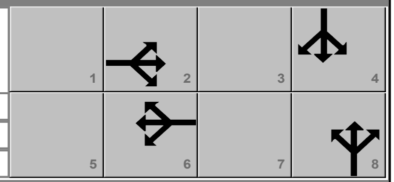
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.98
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton FUTURE WITH PROJECT AM PE…		
Project Description	FUTURE WITH 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	111	829	64	150	1457	19	10	820	81	2	876	132

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	33.0	19.0	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		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		37.0		37.0		23.0		23.0
Change Period, (*Y+R c*), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.1
Queue Clearance Time (*g s*), s						21.0		19.2
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	113	476	435	153	771	735	499		431	560		471
Adjusted Saturation Flow Rate (*s*), veh/h/ln	350	1870	1708	606	1870	1780	1459		1620	1897		1597
Queue Service Time (*g s*), s	14.0	9.2	9.2	12.2	18.9	19.0	1.8		14.9	1.6		17.2
Cycle Queue Clearance Time (*g c*), s	33.0	9.2	9.2	21.5	18.9	19.0	19.0		14.9	17.1		17.2
Green Ratio (*g/C*)	0.55	0.55	0.55	0.55	0.55	0.55	0.32		0.32	0.32		0.32
Capacity (*c*), veh/h	202	1029	939	360	1029	979	523		513	661		506
Volume-to-Capacity Ratio (*X*)	0.562	0.463	0.463	0.425	0.749	0.751	0.953		0.840	0.847		0.931
Back of Queue (*Q*), ft/ln (85 th percentile)	91.5	129.2	119.3	79.5	252.8	241.9	320.9		227.8	282.5		299.1
Back of Queue (*Q*), veh/ln (85 th percentile)	3.7	5.1	4.8	3.2	10.0	9.7	12.8		9.1	11.3		12.0
Queue Storage Ratio (*RQ*) (85 th percentile)	1.04	0.00	0.00	0.90	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (*d 1*), s/veh	25.0	8.2	8.2	14.6	10.3	10.4	19.6		19.1	19.9		19.9
Incremental Delay (*d 2*), s/veh	10.8	1.5	1.6	3.6	5.0	5.3	27.5		11.3	9.5		23.8
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	35.8	9.6	9.8	18.3	15.3	15.7	47.2		30.4	29.3		43.7
Level of Service (LOS)	D	A	A	B	B	B	D		C	C		D
Approach Delay, s/veh / LOS	12.6	B		15.7	B		39.4	D		35.9	D	
Intersection Delay, s/veh / LOS	24.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.06	B	2.06	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.33	A	1.86	B	1.25	A	1.34	A

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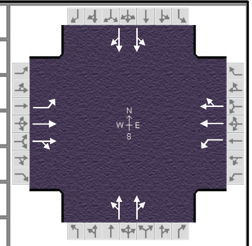
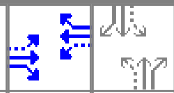
HCS7 Signalized Intersection Results Summary

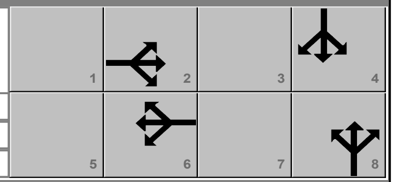
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.95
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton EXISTING PM PEAK.xus		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	70	954	121	117	1251	43	11	740	82	0	913	63



Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	31.3	20.7	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		2		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		35.3		35.3		24.7		24.7
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						17.5		17.0
Green Extension Time (g_e), s		0.0		0.0		3.2		3.3
Phase Call Probability						1.00		1.00
Max Out Probability						0.44		0.41

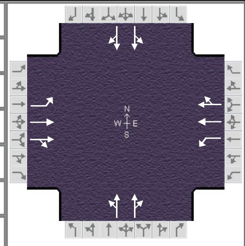
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	74	598	534	123	701	661	469		408	0		502
Adjusted Saturation Flow Rate (*s*), veh/h/ln	401	1870	1666	497	1870	1756	1755		1622	0		1814
Queue Service Time (g_s), s	10.3	13.5	13.5	13.9	17.2	17.3	0.4		13.2	0.0		15.0
Cycle Queue Clearance Time (g_c), s	27.7	13.5	13.5	27.4	17.2	17.3	15.5		13.2	0.0		15.0
Green Ratio (*g/C*)	0.52	0.52	0.52	0.52	0.52	0.52	0.34		0.34			0.34
Capacity (*c*), veh/h	214	977	870	268	977	917	666		559			625
Volume-to-Capacity Ratio (*X*)	0.345	0.612	0.613	0.460	0.718	0.720	0.705		0.730	0.000		0.803
Back of Queue (*Q*), ft/ln (85 th percentile)	50.9	187.5	170.4	80.9	237.4	225.2	186.7		163.5	0		216.1
Back of Queue (*Q*), veh/ln (85 th percentile)	2.0	7.4	6.8	3.2	9.3	9.0	7.5		6.5	0.0		8.6
Queue Storage Ratio (*RQ*) (85 th percentile)	0.58	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	21.6	10.1	10.1	19.7	11.0	11.0	17.1		17.2			17.8
Incremental Delay (d_2), s/veh	4.4	2.9	3.2	5.6	4.5	4.9	1.3		0.7	0.0		3.8
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	26.0	12.9	13.3	25.3	15.5	15.8	18.5		17.9			21.6
Level of Service (LOS)	C	B	B	C	B	B	B		B			C
Approach Delay, s/veh / LOS	13.9	B		16.5	B		18.2	B		21.5	C	
Intersection Delay, s/veh / LOS	17.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.07	B	2.07	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.48	A	1.71	B	1.21	A	1.34	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 9:26:10 PM

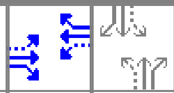
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.95
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton EXISTING+PROJECT PM PEAK.xus		
Project Description	EXISTING + PROJECT				

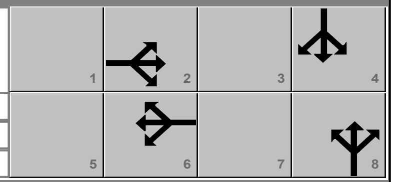


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	88	954	121	117	1251	43	11	746	82	0	934	125

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	29.8	22.2	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		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		33.8		33.8		26.2		26.2
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						19.2		18.7
Green Extension Time (g_e), s		0.0		0.0		3.0		3.2
Phase Call Probability						1.00		1.00
Max Out Probability						0.61		0.56

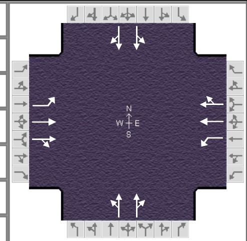
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	93	601	531	123	702	660	472		411	0		534
Adjusted Saturation Flow Rate (*s*), veh/h/ln	400	1870	1649	495	1870	1751	1726		1622	0		1746
Queue Service Time (g_s), s	11.5	14.3	14.3	14.8	18.2	18.3	0.6		12.8	0.0		16.7
Cycle Queue Clearance Time (g_c), s	29.8	14.3	14.3	29.1	18.2	18.3	17.2		12.8	0.0		16.7
Green Ratio (*g/C*)	0.50	0.50	0.50	0.50	0.50	0.50	0.37		0.37			0.37
Capacity (*c*), veh/h	196	928	818	247	928	869	701		601			647
Volume-to-Capacity Ratio (*X*)	0.472	0.647	0.649	0.498	0.756	0.759	0.674		0.684	0.000		0.826
Back of Queue (*Q*), ft/ln (85 th percentile)	75.7	204.4	184.5	86.9	260.6	246.9	178.9		156.8	0		234.9
Back of Queue (*Q*), veh/ln (85 th percentile)	3.0	8.0	7.4	3.5	10.3	9.9	7.2		6.3	0.0		9.4
Queue Storage Ratio (*RQ*) (85 th percentile)	0.86	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	25.3	11.2	11.2	22.1	12.2	12.2	15.9		15.9			17.1
Incremental Delay (d_2), s/veh	7.9	3.5	4.0	7.0	5.7	6.2	1.2		0.5	0.0		5.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	33.2	14.7	15.2	29.1	17.9	18.4	17.1		16.5			22.8
Level of Service (LOS)	C	B	B	C	B	B	B		B			C
Approach Delay, s/veh / LOS	16.3		B	19.1		B	16.8		B	22.5		C
Intersection Delay, s/veh / LOS	18.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.07	B	2.07	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.50	A	1.71	B	1.22	A	1.41	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 9:28:18 PM

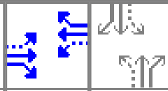
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.95
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton FUTURE WO PM PEAK.xus		
Project Description	FUTURE WITHOUT PROJECT				

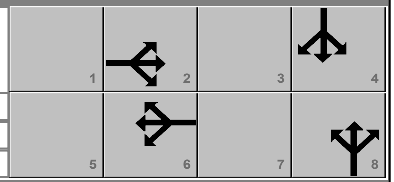


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	86	1092	133	141	1343	49	12	787	101	6	969	67

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	31.0	21.0	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



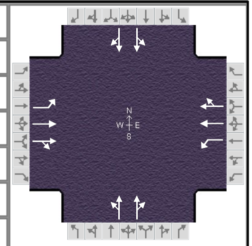
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		35.0		35.0		25.0		25.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s						21.6		19.5
Green Extension Time (g_e), s		0.0		0.0		0.0		0.9
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	91	679	610	148	754	711	509		439	586		511
Adjusted Saturation Flow Rate (*s*), veh/h/ln	364	1870	1667	430	1870	1753	1536		1606	1889		1646
Queue Service Time (g_s), s	11.2	16.5	16.7	14.3	19.6	19.8	2.1		14.7	1.8		17.5
Cycle Queue Clearance Time (g_c), s	31.0	16.5	16.7	31.0	19.6	19.8	19.6		14.7	17.5		17.5
Green Ratio (*g/C*)	0.52	0.52	0.52	0.52	0.52	0.52	0.35		0.35	0.35		0.35
Capacity (*c*), veh/h	188	966	861	222	966	906	599		562	722		576
Volume-to-Capacity Ratio (*X*)	0.482	0.703	0.708	0.668	0.780	0.785	0.849		0.780	0.812		0.886
Back of Queue (*Q*), ft/ln (85 th percentile)	75.3	229.8	211.1	117.6	275.4	262.1	248.1		203.3	269.8		277.1
Back of Queue (*Q*), veh/ln (85 th percentile)	3.0	9.0	8.4	4.7	10.8	10.5	9.9		8.1	10.8		11.1
Queue Storage Ratio (*RQ*) (85 th percentile)	0.86	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	25.8	11.0	11.1	25.1	11.7	11.8	17.6		17.4	18.3		18.4
Incremental Delay (d_2), s/veh	8.6	4.3	4.9	14.9	6.2	6.8	10.6		6.4	6.5		14.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	34.4	15.3	16.0	40.0	18.0	18.6	28.2		23.8	24.9		33.3
Level of Service (LOS)	C	B	B	D	B	B	C		C	C		C
Approach Delay, s/veh / LOS	16.8	B		20.3	C		26.2	C		28.8	C	
Intersection Delay, s/veh / LOS	22.3						C					

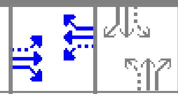
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.07	B	2.07	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.63	B	1.82	B	1.27	A	1.39	A

HCS7 Signalized Intersection Results Summary

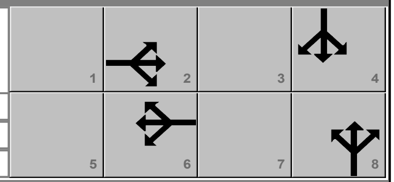
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.95
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	WILTON PLACE	File Name	2 SM & Wilton FUTURE WITH PROJECT PM PE...		
Project Description	FUTURE WITH 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	104	1092	133	141	1343	49	12	793	101	0	990	129



Signal Information											
Cycle, s	60.0	Reference Phase	2								
Offset, s	0	Reference Point	End	Green	31.0	21.0	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		6		8		4
Case Number		6.0		6.0		8.0		8.0
Phase Duration, s		35.0		35.0		25.0		25.0
Change Period, (*Y+R* $_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s						23.0		20.7
Green Extension Time (g_e), s		0.0		0.0		0.0		0.2
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

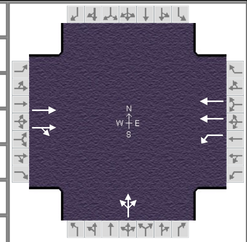
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	109	682	608	148	755	710	512		441	0		564
Adjusted Saturation Flow Rate (*s*), veh/h/ln	363	1870	1654	428	1870	1748	1437		1602	1858		1742
Queue Service Time (g_s), s	11.2	16.6	16.8	14.2	19.6	19.8	2.3		14.8	0.0		18.7
Cycle Queue Clearance Time (g_c), s	31.0	16.6	16.8	31.0	19.6	19.8	21.0		14.8	0.0		18.7
Green Ratio (*g/C*)	0.52	0.52	0.52	0.52	0.52	0.52	0.35		0.35	0.35		0.35
Capacity (*c*), veh/h	188	966	855	221	966	903	564		561			610
Volume-to-Capacity Ratio (*X*)	0.584	0.705	0.711	0.672	0.781	0.786	0.908		0.787	0.000		0.926
Back of Queue (*Q*), ft/ln (85 th percentile)	91.5	231.2	211.6	117.9	275.7	262.2	280.8		206	0		327
Back of Queue (*Q*), veh/ln (85 th percentile)	3.7	9.1	8.5	4.7	10.9	10.5	11.2		8.2	0.0		13.1
Queue Storage Ratio (*RQ*) (85 th percentile)	1.04	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	26.6	11.0	11.1	25.2	11.8	11.8	17.8		17.5			18.8
Incremental Delay (d_2), s/veh	12.6	4.3	5.0	15.1	6.3	6.8	18.1		6.7	0.0		19.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	39.2	15.3	16.1	40.3	18.0	18.7	36.0		24.2			38.7
Level of Service (LOS)	D	B	B	D	B	B	D		C			D
Approach Delay, s/veh / LOS	17.5		B	20.3		C	30.5		C	37.7		D
Intersection Delay, s/veh / LOS	25.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.07	B	2.07	B	2.26	B	2.26	B
Bicycle LOS Score / LOS	1.64	B	1.82	B	1.27	A	1.46	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 9:32:11 PM

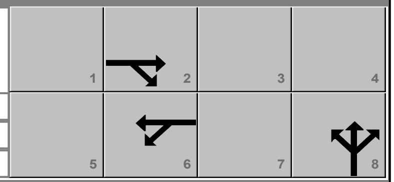
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s EXISTING AM P…		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1122	26	51	1754		122	0	106			

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	40.9	11.1	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



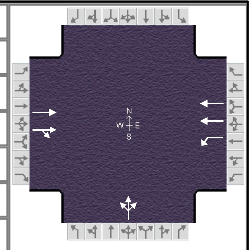
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		44.9		44.9		15.1		
Change Period, (*Y+R c*), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.4		
Queue Clearance Time (*g s*), s						11.1		
Green Extension Time (*g e*), s		0.0		0.0		0.3		
Phase Call Probability						0.98		
Max Out Probability						0.29		

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		3	8	18			
Adjusted Flow Rate (*v*), veh/h		640	607	55	1907			248				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1773	449	1745			1584				
Queue Service Time (*g s*), s		12.4	10.0	4.5	23.0			9.1				
Cycle Queue Clearance Time (*g c*), s		12.4	10.0	16.9	23.0			9.1				
Green Ratio (*g/C*)		0.68	0.68	0.68	0.68			0.19				
Capacity (*c*), veh/h		1274	1207	333	2377			294				
Volume-to-Capacity Ratio (*X*)		0.503	0.503	0.167	0.802			0.843				
Back of Queue (*Q*), ft/ln (85 th percentile)		110.5	105.1	20.6	206			141.1				
Back of Queue (*Q*), veh/ln (85 th percentile)		4.3	4.2	0.8	8.1			5.6				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	0.41	0.00			0.00				
Uniform Delay (*d 1*), s/veh		4.6	4.6	9.5	6.7			23.6				
Incremental Delay (*d 2*), s/veh		1.4	1.5	1.1	3.0			7.2				
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		6.1	6.1	10.6	9.7			30.7				
Level of Service (LOS)		A	A	B	A			C				
Approach Delay, s/veh / LOS	6.1	A		9.7	A		30.7	C		0.0		
Intersection Delay, s/veh / LOS	9.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.33	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.52	B	2.11	B	0.90	A		

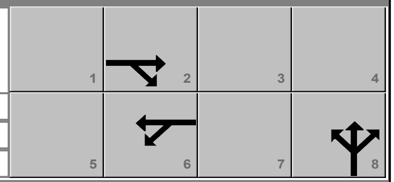
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s EXISTING+PRO…		
Project Description	EXISTING+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		1122	26	51	1791		122	0	106			

Signal Information											
Cycle, s	60.0	Reference Phase	2								
Offset, s	0	Reference Point	End	Green	40.8	11.2	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	



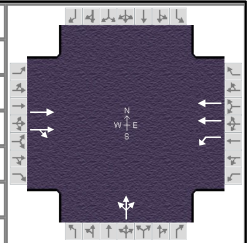
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		44.8		44.8		15.2		
Change Period, (*Y+R c*), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.4		
Queue Clearance Time (*g s*), s						11.1		
Green Extension Time (*g e*), s		0.0		0.0		0.3		
Phase Call Probability						0.98		
Max Out Probability						0.32		

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		3	8	18			
Adjusted Flow Rate (*v*), veh/h		641	607	55	1947			248				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1769	447	1745			1571				
Queue Service Time (*g s*), s		12.4	10.0	4.5	24.2			9.1				
Cycle Queue Clearance Time (*g c*), s		12.4	10.0	16.9	24.2			9.1				
Green Ratio (*g/C*)		0.68	0.68	0.68	0.68			0.19				
Capacity (*c*), veh/h		1272	1203	331	2373			294				
Volume-to-Capacity Ratio (*X*)		0.504	0.505	0.167	0.821			0.844				
Back of Queue (*Q*), ft/ln (85 th percentile)		111.8	106.3	20.7	218.5			141.9				
Back of Queue (*Q*), veh/ln (85 th percentile)		4.4	4.3	0.8	8.6			5.7				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	0.41	0.00			0.00				
Uniform Delay (*d 1*), s/veh		4.7	4.7	9.5	7.0			23.6				
Incremental Delay (*d 2*), s/veh		1.4	1.5	1.1	3.3			7.5				
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		6.1	6.2	10.6	10.3			31.0				
Level of Service (LOS)		A	A	B	B			C				
Approach Delay, s/veh / LOS	6.2	A		10.3	B		31.0	C		0.0		
Intersection Delay, s/veh / LOS	10.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.33	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.52	B	2.14	B	0.90	A		

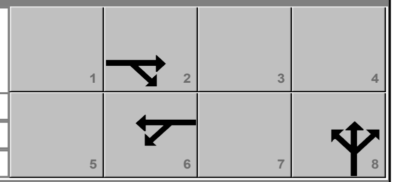
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s FUTURE WO P…		
Project Description	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		1204	27	53	1951		129	0	112			

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	40.3	11.7	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



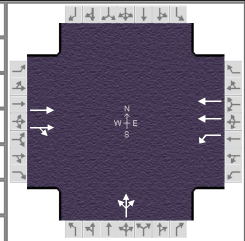
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		44.3		44.3		15.7		
Change Period, (*Y+R c*), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.4		
Queue Clearance Time (*g s*), s						11.6		
Green Extension Time (*g e*), s		0.0		0.0		0.3		
Phase Call Probability						0.99		
Max Out Probability						0.45		

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		3	8	18			
Adjusted Flow Rate (*v*), veh/h		686	652	58	2121			262				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1773	412	1745			1585				
Queue Service Time (*g s*), s		13.9	11.4	5.5	30.5			9.6				
Cycle Queue Clearance Time (*g c*), s		13.9	11.4	19.3	30.5			9.6				
Green Ratio (*g/C*)		0.67	0.67	0.67	0.67			0.19				
Capacity (*c*), veh/h		1257	1192	302	2346			308				
Volume-to-Capacity Ratio (*X*)		0.546	0.547	0.191	0.904			0.849				
Back of Queue (*Q*), ft/ln (85 th percentile)		126.9	120.8	24	290.4			151.6				
Back of Queue (*Q*), veh/ln (85 th percentile)		5.0	4.8	1.0	11.4			6.1				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	0.48	0.00			0.00				
Uniform Delay (*d 1*), s/veh		5.1	5.1	10.9	8.2			23.3				
Incremental Delay (*d 2*), s/veh		1.7	1.8	1.4	6.3			8.8				
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		6.8	6.9	12.3	14.5			32.1				
Level of Service (LOS)		A	A	B	B			C				
Approach Delay, s/veh / LOS	6.9		A	14.5		B	32.1		C	0.0		
Intersection Delay, s/veh / LOS	13.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.33	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.59	B	2.28	B	0.92	A		

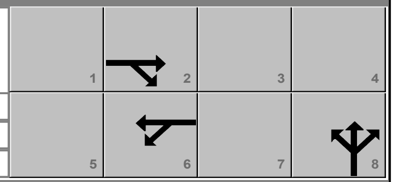
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s FUTURE WITH…		
Project Description	FUTURE WITH 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		1204	27	53	1988		129	0	112			

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	40.3	11.7	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		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		44.3		44.3		15.7		
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.4		
Queue Clearance Time (g_s), s						11.6		
Green Extension Time (g_e), s		0.0		0.0		0.3		
Phase Call Probability						0.99		
Max Out Probability						0.48		

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		3	8	18			
Adjusted Flow Rate (*v*), veh/h		687	651	58	2161			262				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1770	411	1745			1573				
Queue Service Time (g_s), s		13.9	11.5	5.5	32.1			9.6				
Cycle Queue Clearance Time (g_c), s		13.9	11.5	19.4	32.1			9.6				
Green Ratio (*g/C*)		0.67	0.67	0.67	0.67			0.20				
Capacity (*c*), veh/h		1255	1187	301	2341			308				
Volume-to-Capacity Ratio (*X*)		0.547	0.548	0.192	0.923			0.851				
Back of Queue (*Q*), ft/ln (85 th percentile)		127.7	122	24.1	314.1			152.5				
Back of Queue (*Q*), veh/ln (85 th percentile)		5.0	4.9	1.0	12.4			6.1				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	0.48	0.00			0.00				
Uniform Delay (d_1), s/veh		5.1	5.1	11.0	8.5			23.3				
Incremental Delay (d_2), s/veh		1.7	1.8	1.4	7.6			9.1				
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		6.9	7.0	12.4	16.1			32.4				
Level of Service (LOS)		A	A	B	B			C				

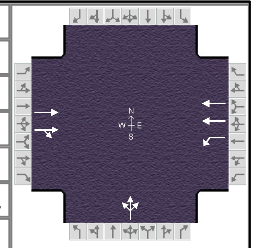
	EB		WB		NB		SB	
Approach Delay, s/veh / LOS	6.9	A	16.0	B	32.4	C	0.0	
Intersection Delay, s/veh / LOS	13.9				B			

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.33	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.59	B	2.32	B	0.92	A		

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 9:52:01 PM

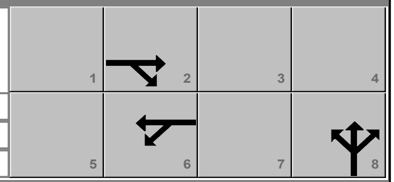
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s EXISTING PM P…		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1544	71	174	1798		48	0	114			

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	43.4	8.6	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		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		47.4		47.4		12.6		
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.6		
Queue Clearance Time (g_s), s						8.9		
Green Extension Time (g_e), s		0.0		0.0		0.2		
Phase Call Probability						0.95		
Max Out Probability						0.25		

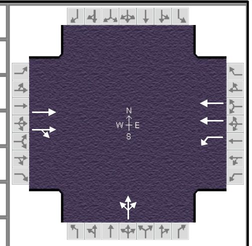
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3	8	18			
Adjusted Flow Rate (*v*), veh/h		900	856	189	1954			176				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1750	277	1745			1485				
Queue Service Time (g_s), s		20.5	15.9	22.9	21.1			6.9				
Cycle Queue Clearance Time (g_c), s		20.5	15.9	43.4	21.1			6.9				
Green Ratio (*g/C*)		0.72	0.72	0.72	0.72			0.14				
Capacity (*c*), veh/h		1353	1266	226	2524			213				
Volume-to-Capacity Ratio (*X*)		0.665	0.676	0.838	0.774			0.827				
Back of Queue (*Q*), ft/ln (85 th percentile)		141.6	138.3	164.6	161.8			101.9				
Back of Queue (*Q*), veh/ln (85 th percentile)		5.6	5.5	6.6	6.4			4.1				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	3.29	0.00			0.00				
Uniform Delay (d_1), s/veh		4.4	4.5	23.6	5.2			25.0				
Incremental Delay (d_2), s/veh		2.6	2.9	29.4	2.4			3.7				
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		7.0	7.4	53.0	7.6			28.6				
Level of Service (LOS)		A	A	D	A			C				
Approach Delay, s/veh / LOS	7.2		A	11.6		B	28.6		C	0.0		
Intersection Delay, s/veh / LOS	10.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.61	B	1.31	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.94	B	2.26	B	0.78	A		

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 10:21:35 PM

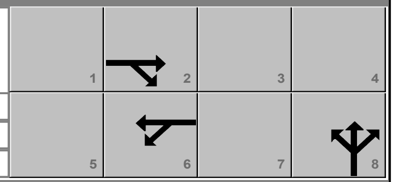
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s EXISTING+PRO…		
Project Description	EXISTING+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		1544	71	174	1983		48	0	114			

Signal Information											
Cycle, s	60.0	Reference Phase	2								
Offset, s	0	Reference Point	End	Green	43.3	8.7	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		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		47.3		47.3		12.7		
Change Period, (*Y+R* $_c$), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.6		
Queue Clearance Time (*g* $_s$), s						9.0		
Green Extension Time (*g* $_e$), s		0.0		0.0		0.2		
Phase Call Probability						0.95		
Max Out Probability						0.29		

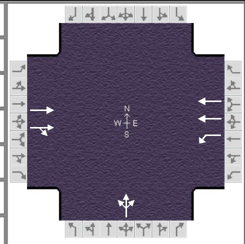
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3	8	18			
Adjusted Flow Rate (*v*), veh/h		900	855	189	2155			176				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1747	276	1745			1462				
Queue Service Time (*g* $_s$), s		20.5	16.0	22.8	27.0			7.0				
Cycle Queue Clearance Time (*g* $_c$), s		20.5	16.0	43.3	27.0			7.0				
Green Ratio (*g/C*)		0.72	0.72	0.72	0.72			0.15				
Capacity (*c*), veh/h		1350	1260	225	2518			212				
Volume-to-Capacity Ratio (*X*)		0.667	0.679	0.840	0.856			0.830				
Back of Queue (*Q*), ft/ln (85 th percentile)		143.5	140.2	165.1	210			102.9				
Back of Queue (*Q*), veh/ln (85 th percentile)		5.6	5.6	6.6	8.3			4.1				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	3.30	0.00			0.00				
Uniform Delay (*d* $_1$), s/veh		4.5	4.6	23.7	6.1			24.9				
Incremental Delay (*d* $_2$), s/veh		2.6	3.0	29.7	4.0			4.3				
Initial Queue Delay (*d* $_3$), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		7.1	7.5	53.4	10.1			29.2				
Level of Service (LOS)		A	A	D	B			C				
Approach Delay, s/veh / LOS	7.3		A	13.6		B	29.2		C	0.0		
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.61	B	1.31	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	1.94	B	2.42	B	0.78	A		

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 10:08:28 PM

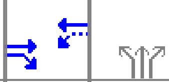
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s FUTURE WO P…		
Project Description	FUTURE WO PROJECT				

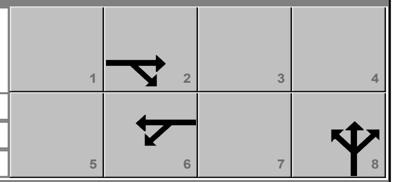


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1729	75	183	1940		50	0	121			

Signal Information			
Cycle, s	55.0	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	39.0	8.0	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		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		43.0		43.0		12.0		
Change Period, (*Y+R c*), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		3.6		
Queue Clearance Time (*g s*), s						8.8		
Green Extension Time (*g e*), s		0.0		0.0		0.0		
Phase Call Probability						0.94		
Max Out Probability						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		2	12	1	6		3	8	18			
Adjusted Flow Rate (*v*), veh/h		1000	960	199	2109			186				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1870	1754	227	1745			1463				
Queue Service Time (*g s*), s		18.6	19.4	19.6	24.4			6.8				
Cycle Queue Clearance Time (*g c*), s		18.6	19.4	39.0	24.4			6.8				
Green Ratio (*g/C*)		0.71	0.71	0.71	0.71			0.15				
Capacity (*c*), veh/h		1326	1244	212	2475			213				
Volume-to-Capacity Ratio (*X*)		0.754	0.772	0.939	0.852			0.873				
Back of Queue (*Q*), ft/ln (85 th percentile)		165.4	166.1	190.1	183			147.6				
Back of Queue (*Q*), veh/ln (85 th percentile)		6.5	6.6	7.6	7.2			5.9				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	3.80	0.00			0.00				
Uniform Delay (*d 1*), s/veh		5.0	5.1	23.5	5.9			23.0				
Incremental Delay (*d 2*), s/veh		4.0	4.7	47.8	4.0			29.5				
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		9.0	9.8	71.3	9.8			52.5				
Level of Service (LOS)		A	A	E	A			D				
Approach Delay, s/veh / LOS	9.4		A	15.1		B	52.5		D	0.0		
Intersection Delay, s/veh / LOS		14.2						B				

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.61	B	1.31	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	2.11	B	2.39	B	0.79	A		

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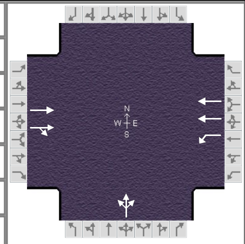
HCS 2010 Signalized Intersection Results Summary

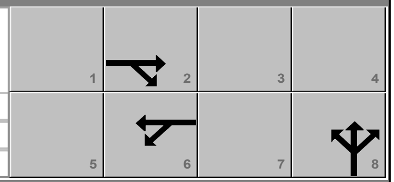
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3a SM & ST ANDREWS west i-s FUTURE WITH…		
Project Description	FUTURE WITH 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		1729	75	183	2125		50	0	121			

Signal Information			
Cycle, s	56.0	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	0.0	0.0	0.0	0.0	0.0	0.0
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



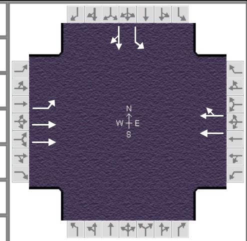
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		
Case Number		8.0		6.0		12.0		
Phase Duration, s		43.6		43.6		12.4		
Change Period, (*Y+R* c), s		4.0		4.0		4.0		
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		
Queue Clearance Time (*g* s), s		0.0		0.0		0.0		
Green Extension Time (*g* e), 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		3	8	18			
Adjusted Flow Rate (*v*), veh/h		0	0	0	0			0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln		0	0	0	0			0				
Queue Service Time (*g* s), s		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				
Green Ratio (*g/C*)		0.71	0.71	0.71	0.71			0.15				
Capacity (*c*), veh/h		1316	1230	207	2455			220				
Volume-to-Capacity Ratio (*X*)		0.760	0.781	0.962	0.941			0.844				
Back of Queue (*Q*), ft/ln (85 th percentile)		176.5	178.3	199.7	279.6			134.2				
Back of Queue (*Q*), veh/ln (85 th percentile)		6.9	7.1	8.0	11.0			5.4				
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00	3.99	0.00			0.00				
Uniform Delay (*d* 1), s/veh		5.2	5.4	24.2	7.2			23.1				
Incremental Delay (*d* 2), s/veh		4.2	5.0	53.5	8.8			21.0				
Initial Queue Delay (*d* 3), s/veh		0.0	0.0	0.0	0.0			0.0				
Control Delay (*d*), s/veh		9.4	10.3	77.7	16.0			44.2				
Level of Service (LOS)		A	B	E	B			D				
Approach Delay, s/veh / LOS	9.9	A		20.8	C		44.2	D		0.0		
Intersection Delay, s/veh / LOS	17.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	1.8	A	2.8	C	2.7	B
Bicycle LOS Score / LOS	2.1	B	2.6	B	0.8	A		

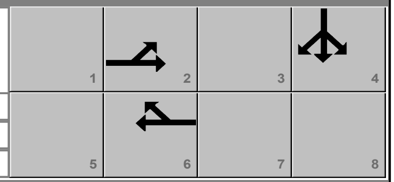
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s EXISTING AM P…		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	46	1114			1623	18				75	0	144

Signal Information										
Cycle, s	70.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	52.5	9.5	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



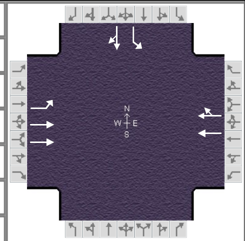
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		56.5		56.5				13.5
Change Period, (*Y+R* *c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.5
Queue Clearance Time (*g* *s*), s								9.2
Green Extension Time (*g* *e*), s		0.0		0.0				0.4
Phase Call Probability								0.99
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	5	2			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	50	1211			911	873				82	157	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	269	1745			1870	1785				1598	1478	
Queue Service Time (*g* *s*), s	10.3	9.3			27.6	16.7				3.3	7.2	
Cycle Queue Clearance Time (*g* *c*), s	37.8	9.3			27.6	16.7				3.3	7.2	
Green Ratio (*g/C*)	0.75	0.75			0.75	0.75				0.14	0.14	
Capacity (*c*), veh/h	199	2617			1403	1339				217	201	
Volume-to-Capacity Ratio (*X*)	0.252	0.463			0.649	0.652				0.376	0.780	
Back of Queue (*Q*), ft/ln (85 th percentile)	33.5	83.4			156	150.5				54	104.8	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.3	3.3			6.1	6.0				2.2	4.2	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.67	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d* *1*), s/veh	17.8	3.4			4.3	4.3				27.5	29.2	
Incremental Delay (*d* *2*), s/veh	3.0	0.6			2.3	2.5				0.4	2.5	
Initial Queue Delay (*d* *3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	20.8	3.9			6.6	6.8				28.0	31.7	
Level of Service (LOS)	C	A			A	A				C	C	
Approach Delay, s/veh / LOS	4.6	A		6.7	A		0.0			30.4	C	
Intersection Delay, s/veh / LOS	7.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.31	A	1.83	B	2.14	B	2.31	B
Bicycle LOS Score / LOS	1.53	B	1.96	B			0.88	A

HCS7 Signalized Intersection Results Summary

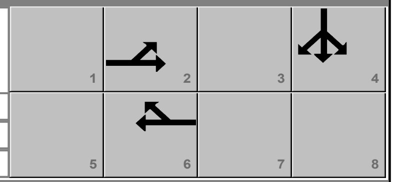
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s EXISTING+PRO…		
Project Description	EXISTING+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	46	1114			1623	238				112	0	144

Signal Information			
Cycle, s	70.0	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	52.4	9.6	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		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		56.4		56.4				13.6
Change Period, ($Y+R_c$), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.5
Queue Clearance Time (g_s), s								9.1
Green Extension Time (g_e), s		0.0		0.0				0.5
Phase Call Probability								1.00
Max Out Probability								0.00

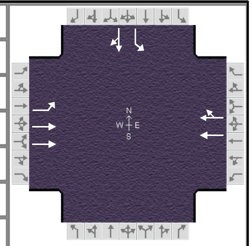
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	50	1211			1032	991				122	157	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	213	1745			1870	1679				1600	1479	
Queue Service Time (g_s), s	15.4	9.4			37.0	25.4				5.0	7.1	
Cycle Queue Clearance Time (g_c), s	52.4	9.4			37.0	25.4				5.0	7.1	
Green Ratio (*g/C*)	0.75	0.75			0.75	0.75				0.14	0.14	
Capacity (*c*), veh/h	150	2612			1400	1256				220	203	
Volume-to-Capacity Ratio (*X*)	0.334	0.464			0.737	0.789				0.554	0.770	
Back of Queue (*Q*), ft/ln (85 th percentile)	46.4	84			202.3	217.3				81.6	104.4	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.9	3.3			8.0	8.7				3.3	4.2	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.93	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (d_1), s/veh	27.8	3.4			4.9	5.4				28.2	29.1	
Incremental Delay (d_2), s/veh	5.9	0.6			3.5	5.1				0.8	2.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	33.7	4.0			8.5	10.5				29.0	31.5	
Level of Service (LOS)	C	A			A	B				C	C	
Approach Delay, s/veh / LOS	5.2		A	9.4		A	0.0			30.4		C
Intersection Delay, s/veh / LOS	9.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.31	A	1.83	B	2.14	B	2.31	B
Bicycle LOS Score / LOS	1.53	B	2.16	B			0.95	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 10:25:52 PM

HCS7 Signalized Intersection Results Summary

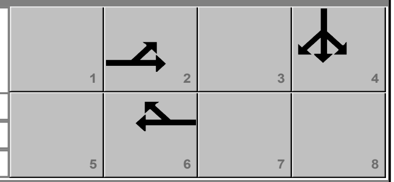
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s FUTURE WO P…		
Project Description	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	49	1195			1812	19				80	0	151

Signal Information			
Cycle, s	70.0	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	52.1	9.9	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



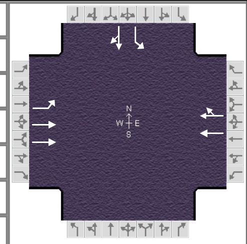
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		56.1		56.1				13.9
Change Period, (*Y+R* *c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.5
Queue Clearance Time (*g* *s*), s								9.5
Green Extension Time (*g* *e*), s		0.0		0.0				0.5
Phase Call Probability								0.99
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	5	2			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	53	1299			1015	975				87	164	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	220	1745			1870	1785				1606	1476	
Queue Service Time (*g* *s*), s	16.7	10.6			34.6	21.5				3.4	7.5	
Cycle Queue Clearance Time (*g* *c*), s	51.3	10.6			34.6	21.5				3.4	7.5	
Green Ratio (*g/C*)	0.74	0.74			0.74	0.74				0.14	0.14	
Capacity (*c*), veh/h	158	2598			1392	1329				227	209	
Volume-to-Capacity Ratio (*X*)	0.337	0.500			0.729	0.734				0.383	0.787	
Back of Queue (*Q*), ft/ln (85 th percentile)	47.4	93.7			199.5	192.9				57.4	108.8	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.9	3.7			7.9	7.7				2.3	4.4	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.95	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d* *1*), s/veh	25.9	3.6			5.0	5.0				27.3	29.0	
Incremental Delay (*d* *2*), s/veh	5.7	0.7			3.4	3.6				0.4	2.5	
Initial Queue Delay (*d* *3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	31.6	4.3			8.4	8.7				27.7	31.5	
Level of Service (LOS)	C	A			A	A				C	C	
Approach Delay, s/veh / LOS	5.4	A		8.5	A		0.0			30.2	C	
Intersection Delay, s/veh / LOS	8.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.31	A	1.83	B	2.14	B	2.31	B
Bicycle LOS Score / LOS	1.60	B	2.13	B			0.90	A

HCS7 Signalized Intersection Results Summary

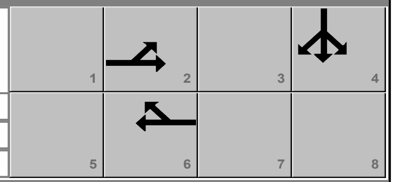
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s FUTURE WITH…		
Project Description	FUTURE WITH 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	49	1195			1812	239				117	0	151

Signal Information			
Cycle, s	70.0	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	52.0	10.0	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		6.0		8.0				10.0
Phase Duration, s		56.0		56.0				14.0
Change Period, (*Y+R* $_c$), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.5
Queue Clearance Time (g_s), s								9.5
Green Extension Time (g_e), s		0.0		0.0				0.5
Phase Call Probability								1.00
Max Out Probability								0.00

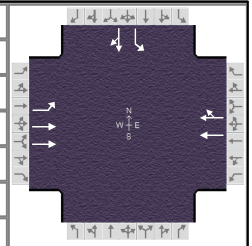
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	53	1299			1137	1092				127	164	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	174	1745			1870	1687				1608	1477	
Queue Service Time (g_s), s	5.3	10.7			46.7	33.0				5.2	7.5	
Cycle Queue Clearance Time (g_c), s	52.0	10.7			46.7	33.0				5.2	7.5	
Green Ratio (*g/C*)	0.74	0.74			0.74	0.74				0.14	0.14	
Capacity (*c*), veh/h	116	2592			1389	1253				230	211	
Volume-to-Capacity Ratio (*X*)	0.459	0.501			0.819	0.871				0.553	0.778	
Back of Queue (*Q*), ft/ln (85 th percentile)	57.3	95.6			268.2	299.1				84	108.2	
Back of Queue (*Q*), veh/ln (85 th percentile)	2.3	3.8			10.6	12.0				3.4	4.3	
Queue Storage Ratio (*RQ*) (85 th percentile)	1.14	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (d_1), s/veh	34.4	3.7			5.9	6.6				27.9	28.9	
Incremental Delay (d_2), s/veh	12.5	0.7			5.5	8.5				0.8	2.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	46.9	4.4			11.4	15.0				28.7	31.3	
Level of Service (LOS)	D	A			B	B				C	C	

	EB		WB		NB		SB	
Approach Delay, s/veh / LOS	6.1	A	13.2	B	0.0		30.1	C
Intersection Delay, s/veh / LOS	12.0				B			

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.31	A	1.83	B	2.14	B	2.31	B
Bicycle LOS Score / LOS	1.60	B	2.33	B			0.97	A

HCS7 Signalized Intersection Results Summary

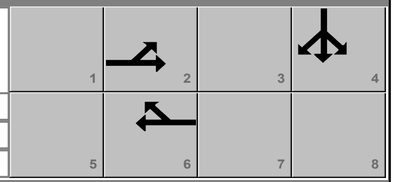
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s EXISTING PM P…		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	52	1507			1716	71				127	0	238

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	39.7	12.3	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		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		43.7		43.7				16.3
Change Period, (*Y+R c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.4
Queue Clearance Time (*g s*), s								11.8
Green Extension Time (*g e*), s		0.0		0.0				0.6
Phase Call Probability								1.00
Max Out Probability								0.18

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			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	57	1638			991	951				138	259	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	231	1745			1870	1756				1670	1516	
Queue Service Time (*g s*), s	10.0	18.0			29.7	24.0				4.3	9.8	
Cycle Queue Clearance Time (*g c*), s	39.7	18.0			29.7	24.0				4.3	9.8	
Green Ratio (*g/C*)	0.66	0.66			0.66	0.66				0.21	0.21	
Capacity (*c*), veh/h	158	2307			1236	1161				343	312	
Volume-to-Capacity Ratio (*X*)	0.357	0.710			0.802	0.819				0.402	0.829	
Back of Queue (*Q*), ft/ln (85 th percentile)	46.6	171.6			255.9	255.3				69.7	140.3	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.9	6.8			10.1	10.2				2.8	5.6	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.93	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	26.6	6.5			7.3	7.5				20.6	22.8	
Incremental Delay (*d 2*), s/veh	6.2	1.9			5.5	6.5				0.3	5.4	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	32.8	8.4			12.9	14.0				20.9	28.2	
Level of Service (LOS)	C	A			B	B				C	C	

	EB		WB		NB		SB	
Approach Delay, s/veh / LOS	9.2	A	13.4	B	0.0		25.7	C
Intersection Delay, s/veh / LOS	12.9				B			

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.33	A	1.85	B	2.13	B	2.30	B
Bicycle LOS Score / LOS	1.89	B	2.09	B			1.14	A

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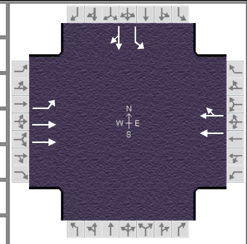
HCS7 Signalized Intersection Results Summary

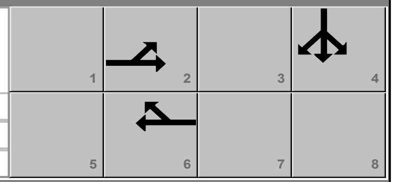
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s EXISTING+PRO…		
Project Description	EXISTING+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	52	1507			1716	125				312	0	238

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	0.0	0.0	0.0	0.0	0.0	0.0
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		6.0		8.0				10.0
Phase Duration, s		41.6		41.6				18.4
Change Period, (*Y+R c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				0.0
Queue Clearance Time (*g s*), s		0.0		0.0				0.0
Green Extension Time (*g e*), 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

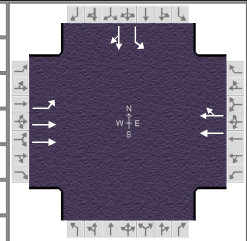
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	0	0			0	0				0	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0			0	0				0	0	
Queue Service Time (*g s*), s	0.0	0.0			0.0	0.0				0.0	0.0	
Cycle Queue Clearance Time (*g c*), s	0.0	0.0			0.0	0.0				0.0	0.0	
Green Ratio (*g/C*)	0.63	0.63			0.63	0.63				0.24	0.24	
Capacity (*c*), veh/h	141	2190			1173	1079				399	361	
Volume-to-Capacity Ratio (*X*)	0.401	0.748			0.870	0.909				0.849	0.717	
Back of Queue (*Q*), ft/ln (85 th percentile)	49	202.5			334	357.8				185.6	128.2	
Back of Queue (*Q*), veh/ln (85 th percentile)	2.0	8.0			13.2	14.3				7.4	5.1	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.98	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	28.9	7.8			9.2	9.7				21.8	21.0	
Incremental Delay (*d 2*), s/veh	8.3	2.4			8.9	12.7				9.1	2.6	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	37.3	10.2			18.1	22.4				30.9	23.6	
Level of Service (LOS)	D	B			B	C				C	C	
Approach Delay, s/veh / LOS	11.1	B		20.2	C		0.0			27.7	C	
Intersection Delay, s/veh / LOS	17.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.34	A	1.85	B	2.13	B	2.30	B
Bicycle LOS Score / LOS	1.89	B	2.14	B			1.47	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 11:03:50 PM

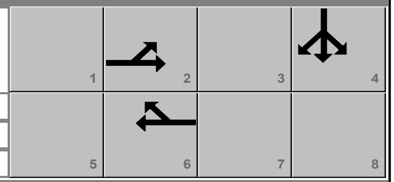
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s FUTURE WO P…		
Project Description	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	54	1690			1853	75				134	0	251

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	38.6	13.4	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



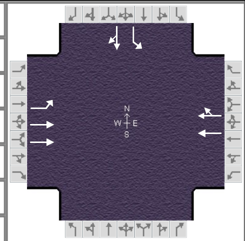
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		42.6		42.6				17.4
Change Period, (*Y+R c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.5
Queue Clearance Time (*g s*), s								12.9
Green Extension Time (*g e*), s		0.0		0.0				0.5
Phase Call Probability								1.00
Max Out Probability								0.41

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			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	59	1837			1069	1026				146	273	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	199	1745			1870	1754				1681	1436	
Queue Service Time (*g s*), s	3.4	23.8			35.2	30.3				4.4	10.9	
Cycle Queue Clearance Time (*g c*), s	38.6	23.8			35.2	30.3				4.4	10.9	
Green Ratio (*g/C*)	0.64	0.64			0.64	0.64				0.22	0.22	
Capacity (*c*), veh/h	131	2242			1202	1127				377	322	
Volume-to-Capacity Ratio (*X*)	0.447	0.819			0.890	0.911				0.387	0.847	
Back of Queue (*Q*), ft/ln (85 th percentile)	53.2	236.2			351.8	360.3				71.6	155.5	
Back of Queue (*Q*), veh/ln (85 th percentile)	2.1	9.3			13.9	14.4				2.9	6.2	
Queue Storage Ratio (*RQ*) (85 th percentile)	1.06	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	29.7	8.1			9.0	9.2				19.8	22.3	
Incremental Delay (*d 2*), s/veh	10.6	3.5			10.1	12.4				0.2	8.9	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	40.3	11.6			19.0	21.7				20.0	31.2	
Level of Service (LOS)	D	B			B	C				C	C	
Approach Delay, s/veh / LOS	12.5	B		20.3	C		0.0			27.3	C	
Intersection Delay, s/veh / LOS	17.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.33	A	1.85	B	2.13	B	2.30	B
Bicycle LOS Score / LOS	2.05	B	2.22	B			1.18	A

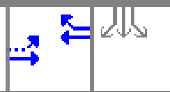
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SAINT ANDREWS PLA…	File Name	3b SM & ST ANDREWS east i-s Future With PRO…		
Project Description	FUTURE WITH PROJECT				

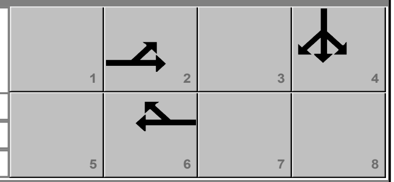


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	54	1690			1853	129				319	0	251

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	37.4	14.6	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		2		6				4
Case Number		6.0		8.0				10.0
Phase Duration, s		41.4		41.4				18.6
Change Period, (*Y+R c*), s		4.0		4.0				4.0
Max Allow Headway (*MAH*), s		0.0		0.0				3.4
Queue Clearance Time (*g s*), s								13.9
Green Extension Time (*g e*), s		0.0		0.0				0.7
Phase Call Probability								1.00
Max Out Probability								0.74

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			6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	59	1837			1099	1055				347	273	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	187	1745			1870	1716				1671	1429	
Queue Service Time (*g s*), s	0.0	25.1			37.9	36.1				11.9	10.7	
Cycle Queue Clearance Time (*g c*), s	37.4	25.1			37.9	36.1				11.9	10.7	
Green Ratio (*g/C*)	0.62	0.62			0.62	0.62				0.24	0.24	
Capacity (*c*), veh/h	120	2174			1165	1069				407	348	
Volume-to-Capacity Ratio (*X*)	0.489	0.845			0.943	0.987				0.851	0.783	
Back of Queue (*Q*), ft/ln (85 th percentile)	56.1	261.6			443.4	504.7				190.4	144.5	
Back of Queue (*Q*), veh/ln (85 th percentile)	2.2	10.3			17.5	20.2				7.6	5.8	
Queue Storage Ratio (*RQ*) (85 th percentile)	1.12	0.00			0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	30.0	9.0			10.3	11.1				21.7	21.2	
Incremental Delay (*d 2*), s/veh	13.6	4.2			15.8	24.5				9.6	5.8	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	43.6	13.3			26.2	35.6				31.2	27.1	
Level of Service (LOS)	D	B			C	D				C	C	

	EB		WB		NB		SB	
Approach Delay, s/veh / LOS	14.2	B	30.8	C	0.0		29.4	C
Intersection Delay, s/veh / LOS	23.9				C			

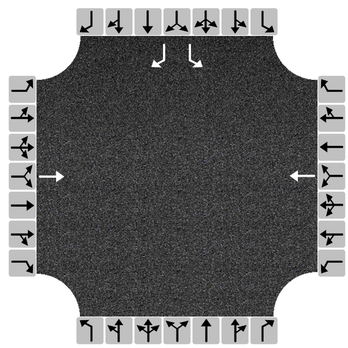
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.34	A	1.86	B	2.13	B	2.30	B
Bicycle LOS Score / LOS	2.05	B	2.26	B			1.51	B

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 11:15:52 PM

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8/15/22	East/West Street	LEXINGTON AVENUE
Analysis Year	2022	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	AM PEAK HOUR		
Project Description	EXISTING		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		60			102					664		223
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	63			107						699	235	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.056			0.095						0.621	0.209	
Final Departure Headway, hd (s)	5.99			5.91						5.56	4.36	
Final Degree of Utilization, x	0.105			0.176						1.080	0.284	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	3.99			3.91						3.26	2.06	

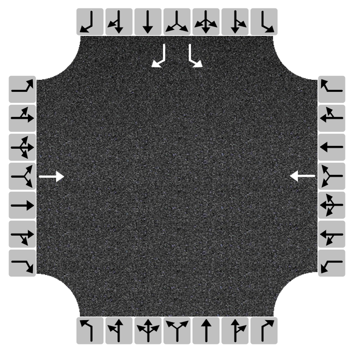
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	63			107						699	235	
Capacity	601			610						647	825	
95% Queue Length, Q_{95} (veh)	0.4			0.6						19.8	1.2	
Control Delay (s/veh)	9.7			10.2						81.4	8.8	
Level of Service, LOS	A			B						F	A	
Approach Delay (s/veh)	9.7			10.2						63.2		
Approach LOS	A			B						F		
Intersection Delay, s/veh | LOS	55.0						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8/15/2022	East/West Street	LEXINGTON AVENUE
Analysis Year	2022	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	AM PEAK HOUR		
Project Description	EXISTING+PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		75			151					664		272
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	79			159						699	286	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.070			0.141						0.621	0.255	
Final Departure Headway, hd (s)	6.10			5.94						5.78	4.57	
Final Degree of Utilization, x	0.134			0.262						1.121	0.363	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	4.10			3.94						3.48	2.27	

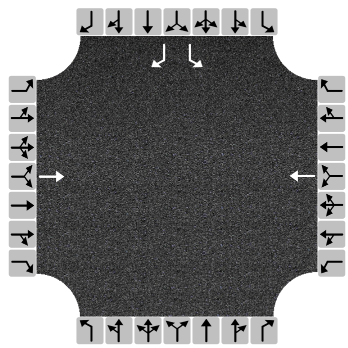
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	79			159						699	286	
Capacity	590			606						623	788	
95% Queue Length, Q_{95} (veh)	0.5			1.0						21.6	1.7	
Control Delay (s/veh)	10.0			11.0						96.3	9.9	
Level of Service, LOS	B			B						F	A	
Approach Delay (s/veh)	10.0			11.0						71.1		
Approach LOS	B			B						F		
Intersection Delay, s/veh | LOS	59.4						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2026	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	AM PEAK HOUR		
Project Description	FUTURE WO PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		63			112					717		250
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	66			118						755	263	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.059			0.105						0.671	0.234	
Final Departure Headway, hd (s)	6.02			5.91						5.61	4.40	
Final Degree of Utilization, x	0.111			0.194						1.176	0.322	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	4.02			3.91						3.31	2.10	

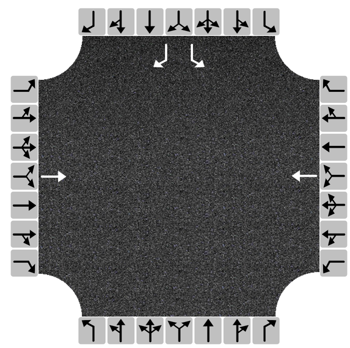
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	66			118						755	263	
Capacity	598			609						642	817	
95% Queue Length, Q_{95} (veh)	0.4			0.7						25.3	1.4	
Control Delay (s/veh)	9.8			10.3						115.1	9.2	
Level of Service, LOS	A			B						F	A	
Approach Delay (s/veh)	9.8			10.3						87.7		
Approach LOS	A			B						F		
Intersection Delay, s/veh | LOS	75.8						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2026	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	AM PEAK HOUR		
Project Description	FUTURE WITH PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		79			161					717		299
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	83			169						755	315	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.074			0.151						0.671	0.280	
Final Departure Headway, hd (s)	6.12			5.95						5.82	4.62	
Final Degree of Utilization, x	0.141			0.280						1.221	0.404	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	4.12			3.95						3.52	2.32	

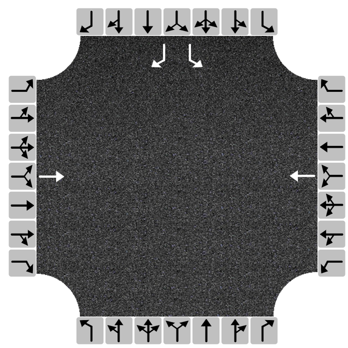
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	83			169						755	315	
Capacity	588			605						618	780	
95% Queue Length, Q_{95} (veh)	0.5			1.1						27.4	2.0	
Control Delay (s/veh)	10.1			11.3						133.4	10.4	
Level of Service, LOS	B			B						F	B	
Approach Delay (s/veh)	10.1			11.3						97.2		
Approach LOS	B			B						F		
Intersection Delay, s/veh | LOS	80.7						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2021	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	PM PEAK HOUR		
Project Description	EXISTING		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		195			62					616		216
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	205			65						648	227	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.182			0.058						0.576	0.202	
Final Departure Headway, hd (s)	5.92			6.20						5.88	4.68	
Final Degree of Utilization, x	0.337			0.112						1.060	0.295	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	3.92			4.20						3.58	2.38	

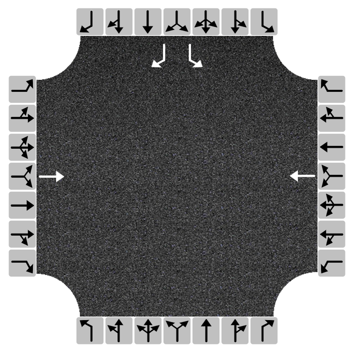
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	205			65						648	227	
Capacity	608			581						612	769	
95% Queue Length, Q_{95} (veh)	1.5			0.4						18.1	1.2	
Control Delay (s/veh)	11.9			10.0						76.7	9.3	
Level of Service, LOS	B			A						F	A	
Approach Delay (s/veh)	11.9			10.0						59.2		
Approach LOS	B			A						F		
Intersection Delay, s/veh | LOS	47.9						E					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2022	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	PM PEAK HOUR		
Project Description	EXISTING+PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		277			74					616		228
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	292			78						648	240	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.259			0.069						0.576	0.213	
Final Departure Headway, hd (s)	5.95			6.37						6.18	4.98	
Final Degree of Utilization, x	0.482			0.138						1.114	0.332	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	3.95			4.37						3.88	2.68	

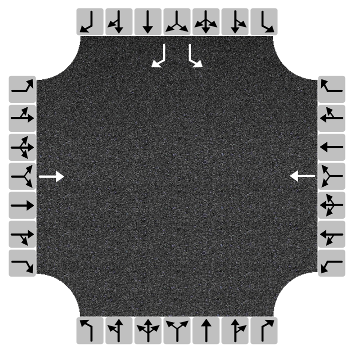
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	292			78						648	240	
Capacity	605			565						582	723	
95% Queue Length, Q_{95} (veh)	2.6			0.5						20.3	1.5	
Control Delay (s/veh)	14.3			10.4						95.8	10.1	
Level of Service, LOS	B			B						F	B	
Approach Delay (s/veh)	14.3			10.4						72.7		
Approach LOS	B			B						F		
Intersection Delay, s/veh | LOS	55.3						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2026	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	PM PEAK HOUR		
Project Description	FUTURE WO PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		209			67					689		228
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	220			71						725	240	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.196			0.063						0.645	0.213	
Final Departure Headway, hd (s)	5.93			6.23						5.94	4.73	
Final Degree of Utilization, x	0.362			0.122						1.197	0.316	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	3.93			4.23						3.64	2.43	

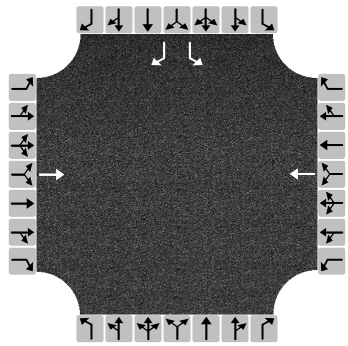
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	220			71						725	240	
Capacity	607			578						606	761	
95% Queue Length, Q_{95} (veh)	1.6			0.4						25.5	1.4	
Control Delay (s/veh)	12.3			10.1						124.6	9.6	
Level of Service, LOS	B			B						F	A	
Approach Delay (s/veh)	12.3			10.1						96.0		
Approach LOS	B			B						F		
Intersection Delay, s/veh | LOS	76.5						F					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	LF	Intersection	4
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	LEXINGTON AVENUE
Analysis Year	2026	North/South Street	SB 101 FREEWAY OFF RAMP
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.95
Time Analyzed	PM PEAK HOUR		
Project Description	FUTURE WITH PROJECT		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume		291			79					689		240
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	T			T						L	R	
Flow Rate, v (veh/h)	306			83						725	253	
Percent Heavy Vehicles	2			2						2	2	

Departure Headway and Service Time

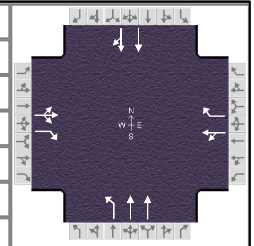
Initial Departure Headway, hd (s)	3.20			3.20						3.20	3.20	
Initial Degree of Utilization, x	0.272			0.074						0.645	0.225	
Final Departure Headway, hd (s)	5.96			6.41						6.25	5.04	
Final Degree of Utilization, x	0.507			0.148						1.259	0.354	
Move-Up Time, m (s)	2.0			2.0						2.3	2.3	
Service Time, ts (s)	3.96			4.41						3.95	2.74	

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	306			83						725	253	
Capacity	604			562						576	714	
95% Queue Length, Q_{95} (veh)	2.9			0.5						28.3	1.6	
Control Delay (s/veh)	14.9			10.5						150.4	10.5	
Level of Service, LOS	B			B						F	B	
Approach Delay (s/veh)	14.9			10.5						114.3		
Approach LOS	B			B						F		
Intersection Delay, s/veh | LOS	85.7						F					

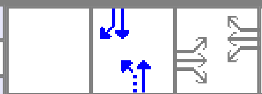
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON EXISTING+PROJE…		
Project Description	EXISTING+PROJECT				

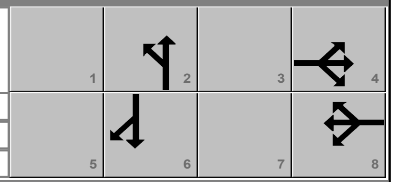


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	79	0	477	0	1	1	24	1194			921	75

Signal Information			
Cycle, s	70.0	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	38.5	20.4	0.2	0.0	0.0	0.0
Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		24.4		3.2		42.5		42.5
Change Period, (*Y+R c*), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.4		0.0		0.0
Queue Clearance Time (*g s*), s		19.8		2.1				
Green Extension Time (*g e*), s		0.6		0.0		0.0		0.0
Phase Call Probability		1.00		0.04				
Max Out Probability		0.65		0.00				

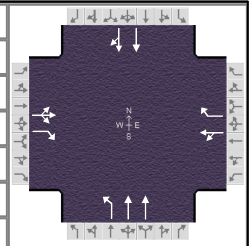
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		80	413		0	1	24	1206			527	479
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1566		0	1408	563	1762			1900	1725
Queue Service Time (*g s*), s		2.3	17.8		0.0	0.1	2.1	16.4			15.1	12.1
Cycle Queue Clearance Time (*g c*), s		2.3	17.8		0.0	0.1	17.2	16.4			15.1	12.1
Green Ratio (*g/C*)		0.29	0.29			0.00	0.55	0.55			0.55	0.55
Capacity (*c*), veh/h		526	455			4	290	1936			1044	948
Volume-to-Capacity Ratio (*X*)		0.152	0.907		0.000	0.260	0.084	0.623			0.505	0.505
Back of Queue (*Q*), ft/ln (85 th percentile)		40.4	274.7		0	1.4	13.3	201.6			171.9	160.1
Back of Queue (*Q*), veh/ln (85 th percentile)		1.6	11.0		0.0	0.1	0.5	8.1			6.9	6.4
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (*d 1*), s/veh		18.4	23.9			34.8	16.3	10.8			9.8	9.8
Incremental Delay (*d 2*), s/veh		0.0	16.1		0.0	12.6	0.6	1.5			1.7	1.9
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		18.5	40.0			47.5	16.8	12.3			11.6	11.8
Level of Service (LOS)		B	D			D	B	B			B	B
Approach Delay, s/veh / LOS	36.5		D	44.4		D	12.4		B	11.7		B
Intersection Delay, s/veh / LOS	16.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.88	B	1.97	B
Bicycle LOS Score / LOS	1.30	A	0.49	A	1.50	B	1.32	A

 HCS7™ Streets Version 7.4 Generated: 8/19/2022 11:53:24 PM

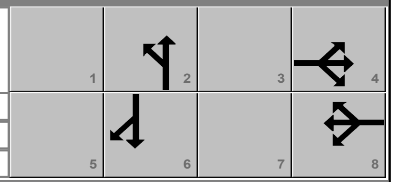
HCS 2010 Signalized Intersection Results Summary

General Information				**Intersection Information**	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON EXISTING+PROJE…		
Project Description	EXISTING+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	95	0	477	0	1	1	24	1194			921	124

Signal Information											
Cycle, s	70.0	Reference Phase	2								
Offset, s	0	Reference Point	End	Green	38.4	20.4	0.2	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		24.4		3.2		42.4		42.4
Change Period, ($Y+R_c$), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.4		0.0		0.0
Queue Clearance Time (g_s), s		19.8		2.1				
Green Extension Time (g_e), s		0.6		0.0		0.0		0.0
Phase Call Probability		1.00		0.04				
Max Out Probability		0.65		0.00				

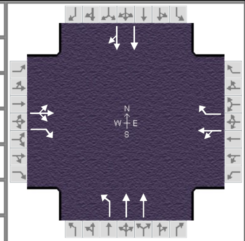
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		96	413		0	1	24	1206			560	496
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1566		0	1408	538	1762			1900	1683
Queue Service Time (g_s), s		2.8	17.8		0.0	0.1	2.3	16.4			16.3	13.2
Cycle Queue Clearance Time (g_c), s		2.8	17.8		0.0	0.1	18.5	16.4			16.3	13.2
Green Ratio (*g/C*)		0.29	0.29			0.00	0.55	0.55			0.55	0.55
Capacity (*c*), veh/h		527	456			4	273	1935			1043	924
Volume-to-Capacity Ratio (*X*)		0.182	0.907		0.000	0.260	0.089	0.623			0.536	0.537
Back of Queue (*Q*), ft/ln (85 th percentile)		49.1	274.4		0	1.4	13.8	201.6			185.1	169.3
Back of Queue (*Q*), veh/ln (85 th percentile)		2.0	11.0		0.0	0.1	0.6	8.1			7.4	6.8
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		18.6	23.9			34.8	17.1	10.8			10.1	10.1
Incremental Delay (d_2), s/veh		0.1	16.0		0.0	12.6	0.6	1.5			2.0	2.2
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		18.6	39.9			47.5	17.8	12.3			12.1	12.3
Level of Service (LOS)		B	D			D	B	B			B	B
Approach Delay, s/veh / LOS	35.9	D		44.4	D		12.5	B		12.2	B	
Intersection Delay, s/veh / LOS	16.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.9	C	2.7	B	2.2	B	2.3	B
Bicycle LOS Score / LOS	1.3	A	0.5	A	1.5	A	1.4	A

 HCS 2010™ Streets Version 6.90 Generated: 8/19/2022 11:56:30 PM

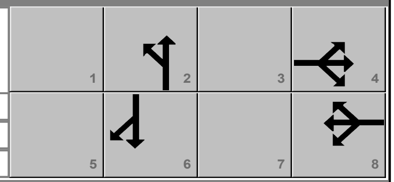
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON FUTURE WO PROJ…		
Project Description	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	83	0	506	0	1	1	29	1277			1005	82

Signal Information										
Cycle, s	70.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	37.4	21.4	0.2	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	3.0	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



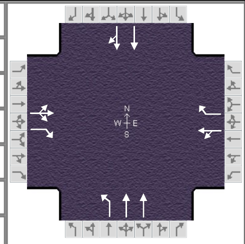
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		25.4		3.2		41.4		41.4
Change Period, (*Y+R* $_c$), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.3		0.0		0.0
Queue Clearance Time (g_s), s		20.9		2.0				
Green Extension Time (g_e), s		0.5		0.0		0.0		0.0
Phase Call Probability		1.00		0.04				
Max Out Probability		1.00		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	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		84	443		0	1	29	1290			574	524
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1580		0	1482	516	1762			1900	1731
Queue Service Time (g_s), s		2.4	18.9		0.0	0.0	3.0	18.8			17.1	14.1
Cycle Queue Clearance Time (g_c), s		2.4	18.9		0.0	0.0	20.1	18.8			17.1	14.1
Green Ratio (*g/C*)		0.31	0.31			0.00	0.53	0.53			0.53	0.53
Capacity (*c*), veh/h		554	484			4	252	1882			1015	924
Volume-to-Capacity Ratio (*X*)		0.151	0.917		0.000	0.247	0.116	0.685			0.566	0.566
Back of Queue (*Q*), ft/ln (85 th percentile)		41.4	298.8		0	1.3	17.9	232.1			200.3	187
Back of Queue (*Q*), veh/ln (85 th percentile)		1.7	12.0		0.0	0.1	0.7	9.3			8.0	7.5
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		17.7	23.4			34.8	18.7	12.0			10.9	10.9
Incremental Delay (d_2), s/veh		0.0	18.3		0.0	11.3	0.9	2.1			2.3	2.5
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		17.7	41.8			46.1	19.7	14.0			13.2	13.4
Level of Service (LOS)		B	D			D	B	B			B	B
Approach Delay, s/veh / LOS	37.9	D		43.7	D		14.2	B		13.3	B	
Intersection Delay, s/veh / LOS	18.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.88	B	1.97	B
Bicycle LOS Score / LOS	1.36	A	0.49	A	1.58	B	1.39	A

HCS7 Signalized Intersection Results Summary

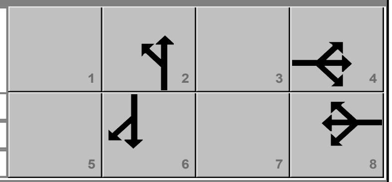
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON FUTURE WITH PR...		
Project Description	FUTURE WITH 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	99	0	506	0	1	1	29	1277			1005	131

Signal Information			
Cycle, s	70.0	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	37.2	21.6	0.2	0.0	0.0	0.0
Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		25.6		3.2		41.2		41.2
Change Period, (*Y+R c*), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.4		0.0		0.0
Queue Clearance Time (g_s), s		21.1		2.1				
Green Extension Time (g_e), s		0.5		0.0		0.0		0.0
Phase Call Probability		1.00		0.04				
Max Out Probability		1.00		0.00				

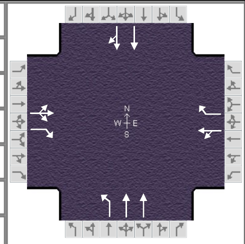
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		100	443		0	1	29	1290			608	540
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1566		0	1401	493	1762			1900	1685
Queue Service Time (g_s), s		2.8	19.1		0.0	0.1	3.2	18.9			18.3	15.5
Cycle Queue Clearance Time (g_c), s		2.8	19.1		0.0	0.1	21.6	18.9			18.3	15.5
Green Ratio (*g/C*)		0.31	0.31			0.00	0.53	0.53			0.53	0.53
Capacity (*c*), veh/h		558	483			4	236	1873			1010	896
Volume-to-Capacity Ratio (*X*)		0.179	0.918		0.000	0.262	0.124	0.689			0.602	0.603
Back of Queue (*Q*), ft/ln (85 th percentile)		49.5	300.5		0	1.4	18.7	232.9			216.5	198.5
Back of Queue (*Q*), veh/ln (85 th percentile)		2.0	12.0		0.0	0.1	0.7	9.3			8.7	7.9
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		17.7	23.3			34.8	19.8	12.1			11.3	11.3
Incremental Delay (d_2), s/veh		0.1	18.8		0.0	12.8	1.1	2.1			2.7	3.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		17.8	42.1			47.6	20.9	14.2			13.9	14.3
Level of Service (LOS)		B	D			D	C	B			B	B
Approach Delay, s/veh / LOS	37.6	D		44.4	D		14.4	B		14.1	B	
Intersection Delay, s/veh / LOS	18.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.88	B	1.97	B
Bicycle LOS Score / LOS	1.38	A	0.49	A	1.58	B	1.43	A

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 12:02:41 AM

HCS7 Signalized Intersection Results Summary

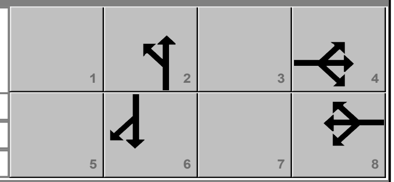
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON EXISTING PM PEA...		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	120	0	576	3	1	2	33	1337			913	44

Signal Information			
Cycle, s	70.0	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	35.8	22.7	0.6	0.0	0.0	0.0
Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		26.7		3.6		39.8		39.8
Change Period, (*Y+R c*), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.2		0.0		0.0
Queue Clearance Time (*g s*), s		22.3		2.2				
Green Extension Time (*g e*), s		0.3		0.0		0.0		0.0
Phase Call Probability		1.00		0.11				
Max Out Probability		1.00		0.00				

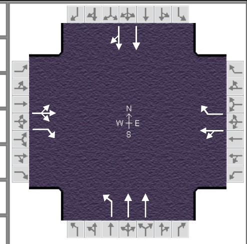
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		121	476		4	2	33	1351			501	466
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1582		1831	1488	588	1762			1900	1766
Queue Service Time (*g s*), s		3.4	20.3		0.2	0.1	3.0	21.3			15.0	12.3
Cycle Queue Clearance Time (*g c*), s		3.4	20.3		0.2	0.1	17.9	21.3			15.0	12.3
Green Ratio (*g/C*)		0.32	0.32		0.01	0.01	0.51	0.51			0.51	0.51
Capacity (*c*), veh/h		586	513		15	12	277	1800			971	902
Volume-to-Capacity Ratio (*X*)		0.207	0.928		0.278	0.171	0.120	0.750			0.516	0.516
Back of Queue (*Q*), ft/ln (95 th percentile)		59.1	374.9		3.6	1.8	19.9	307.8			212.7	202.1
Back of Queue (*Q*), veh/ln (95 th percentile)		2.4	15.0		0.1	0.1	0.8	12.3			8.5	8.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (*d 1*), s/veh		17.1	22.9		34.5	34.5	18.3	13.6			11.4	11.4
Incremental Delay (*d 2*), s/veh		0.1	21.2		3.8	2.5	0.9	2.9			2.0	2.1
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		17.2	44.1		38.3	37.0	19.2	16.5			13.3	13.5
Level of Service (LOS)		B	D		D	D	B	B			B	B
Approach Delay, s/veh / LOS	38.6		D	37.9		D	16.6		B	13.4		B
Intersection Delay, s/veh / LOS	20.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.88	B	2.03	B
Bicycle LOS Score / LOS	1.47	A	0.50	A	1.63	B	1.29	A

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 12:05:08 AM

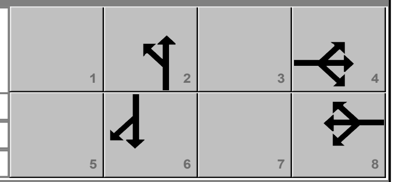
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON EXISTING+PROJE…		
Project Description	EXISTING+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	202	0	576	3	1	2	33	1377			913	56

Signal Information										
Cycle, s	70.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	35.6	22.9	0.6	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		26.9		3.6		39.6		39.6
Change Period, ($Y+R_c$), s		4.0		3.0		4.0		4.0
Max Allow Headway (MAH), s		3.3		3.3		0.0		0.0
Queue Clearance Time (g_s), s		22.5		2.2				
Green Extension Time (g_e), s		0.3		0.0		0.0		0.0
Phase Call Probability		1.00		0.11				
Max Out Probability		1.00		0.17				

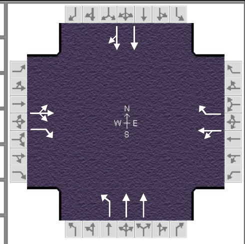
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (v), veh/h		204	476		4	2	33	1391			511	468
Adjusted Saturation Flow Rate (s), veh/h/ln		1810	1568		1831	1408	577	1762			1900	1741
Queue Service Time (g_s), s		6.0	20.5		0.2	0.1	3.0	22.5			14.5	12.7
Cycle Queue Clearance Time (g_c), s		6.0	20.5		0.2	0.1	17.5	22.5			14.5	12.7
Green Ratio (g/C)		0.33	0.33		0.01	0.01	0.51	0.51			0.51	0.51
Capacity (c), veh/h		591	512		15	11	276	1791			966	885
Volume-to-Capacity Ratio (X)		0.345	0.928		0.278	0.181	0.121	0.777			0.529	0.529
Back of Queue (Q), ft/ln (85 th percentile)		97.5	328.8		3.6	1.9	19.8	281.2			185.2	173.6
Back of Queue (Q), veh/ln (85 th percentile)		3.9	13.2		0.1	0.1	0.8	11.2			7.4	6.9
Queue Storage Ratio (RQ) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		17.9	22.8		34.5	34.5	18.2	14.0			11.6	11.6
Incremental Delay (d_2), s/veh		0.1	21.5		3.8	2.8	0.9	3.4			2.1	2.3
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (d), s/veh		18.0	44.3		38.3	37.3	19.1	17.4			13.6	13.8
Level of Service (LOS)		B	D		D	D	B	B			B	B
Approach Delay, s/veh / LOS	36.4	D		38.0	D		17.4	B		13.7	B	
Intersection Delay, s/veh / LOS	20.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.88	B	2.03	B
Bicycle LOS Score / LOS	1.61	B	0.50	A	1.66	B	1.30	A

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 12:11:38 AM

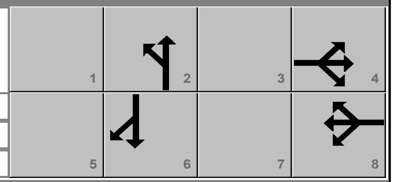
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON FUTURE WO PROJ…		
Project Description	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	134	0	638	3	1	2	36	1464			989	49

Signal Information										
Cycle, s	70.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	34.4	24.0	0.6	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		28.0		3.6		38.4		38.4
Change Period, ($Y+R_c$), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.4		3.3		0.0		0.0
Queue Clearance Time (g_s), s		24.9		2.2				
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		1.00		0.11				
Max Out Probability		1.00		1.00				

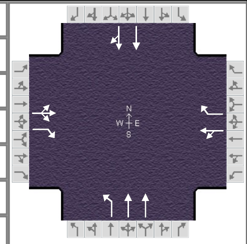
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		135	525		4	2	36	1479			545	504
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1582		1831	1482	540	1762			1900	1756
Queue Service Time (g_s), s		3.7	22.9		0.2	0.1	3.7	25.7			16.0	14.3
Cycle Queue Clearance Time (g_c), s		3.7	22.9		0.2	0.1	19.7	25.7			16.0	14.3
Green Ratio (*g/C*)		0.34	0.34		0.01	0.01	0.49	0.49			0.49	0.49
Capacity (*c*), veh/h		620	542		15	12	246	1734			935	864
Volume-to-Capacity Ratio (*X*)		0.218	0.969		0.278	0.172	0.148	0.853			0.583	0.583
Back of Queue (*Q*), ft/ln (85 th percentile)		64.1	395.9		3.6	1.8	23.6	331.2			209.6	197.6
Back of Queue (*Q*), veh/ln (85 th percentile)		2.6	15.8		0.1	0.1	0.9	13.2			8.4	7.9
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		16.3	22.6		34.5	34.5	20.3	15.6			12.7	12.7
Incremental Delay (d_2), s/veh		0.1	30.5		3.8	2.5	1.3	5.6			2.7	2.9
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		16.4	53.2		38.3	37.0	21.6	21.1			15.3	15.5
Level of Service (LOS)		B	D		D	D	C	C			B	B
Approach Delay, s/veh / LOS	45.6	D		37.9	D		21.1	C		15.4	B	
Intersection Delay, s/veh / LOS	24.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.89	B	2.05	B
Bicycle LOS Score / LOS	1.58	B	0.50	A	1.74	B	1.35	A

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 12:14:03 AM

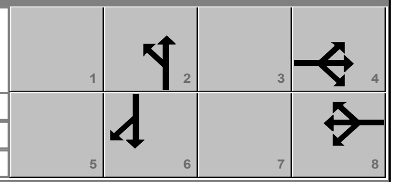
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.99
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	LEXINGTON AVENUE	File Name	5 WESTERN & LEXINGTON FUTURE WITH PR...		
Project Description	FUTURE WITH 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	216	0	638	3	1	2	36	1464			989	61

Signal Information										
Cycle, s	70.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	34.4	24.0	0.6	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	3.0	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		8		2		6
Case Number		11.0		11.0		6.0		8.0
Phase Duration, s		28.0		3.6		38.4		38.4
Change Period, ($Y+R_c$), s		4.0		3.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.3		3.3		0.0		0.0
Queue Clearance Time (g_s), s		25.2		2.2				
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		1.00		0.11				
Max Out Probability		1.00		1.00				

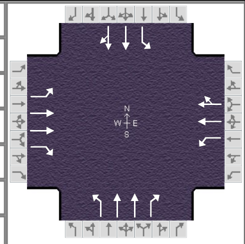
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h		218	525		4	2	36	1479			553	507
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1810	1568		1831	1401	534	1762			1900	1740
Queue Service Time (g_s), s		6.3	23.2		0.2	0.1	3.8	25.7			16.2	14.6
Cycle Queue Clearance Time (g_c), s		6.3	23.2		0.2	0.1	20.0	25.7			16.2	14.6
Green Ratio (*g/C*)		0.34	0.34		0.01	0.01	0.49	0.49			0.49	0.49
Capacity (*c*), veh/h		620	538		15	11	242	1734			935	856
Volume-to-Capacity Ratio (*X*)		0.352	0.977		0.278	0.181	0.150	0.853			0.592	0.592
Back of Queue (*Q*), ft/ln (85 th percentile)		100.8	404.9		3.6	1.9	23.7	331.2			213.8	200.3
Back of Queue (*Q*), veh/ln (85 th percentile)		4.0	16.2		0.1	0.1	0.9	13.2			8.6	8.0
Queue Storage Ratio (*RQ*) (85 th percentile)		0.00	0.00		0.00	0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh		17.2	22.7		34.5	34.5	20.6	15.6			12.7	12.7
Incremental Delay (d_2), s/veh		0.1	32.7		3.8	2.9	1.3	5.6			2.8	3.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh		17.3	55.4		38.3	37.4	21.9	21.1			15.5	15.7
Level of Service (LOS)		B	E		D	D	C	C			B	B
Approach Delay, s/veh / LOS	44.3	D		38.0	D		21.1	C		15.6	B	
Intersection Delay, s/veh / LOS	24.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.30	B	2.14	B	1.89	B	2.05	B
Bicycle LOS Score / LOS	1.71	B	0.50	A	1.74	B	1.36	A

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 12:17:01 AM

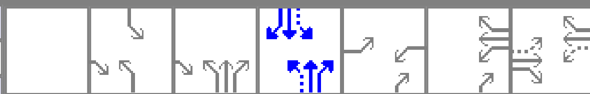
HCS7 Signalized Intersection Results Summary

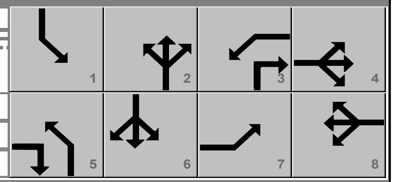
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM EXISTING AM PEAK HOUR....		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	60	822	102	142	969	40	243	2570	421	108	1075	82

Signal Information										
Cycle, s	96.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	5.7	3.7	39.6	4.8	1.2	25.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0



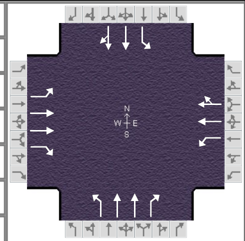


Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.8	29.0	10.0	30.2	13.4	47.3	9.7	43.6
Change Period, (*Y+R c*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (*g s*), s	4.3	24.2	7.7	28.2	9.3		5.3	
Green Extension Time (*g e*), s	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0
Phase Call Probability	0.81	1.00	0.98	1.00	1.00		0.95	
Max Out Probability	1.00	1.00	1.00	1.00	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	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	62	847	1	146	540	500	251	2649	290	111	622	570
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1781	1256	1810	1870	1733	1810	1781	1427	1810	1870	1711
Queue Service Time (*g s*), s	2.3	22.2	0.1	5.7	26.2	26.2	7.3	43.3	11.9	3.3	28.1	28.2
Cycle Queue Clearance Time (*g c*), s	2.3	22.2	0.1	5.7	26.2	26.2	7.3	43.3	11.9	3.3	28.1	28.2
Green Ratio (*g/C*)	0.31	0.26	0.36	0.32	0.27	0.27	0.53	0.45	0.51	0.47	0.41	0.41
Capacity (*c*), veh/h	166	927	478	208	510	472	308	1607	740	182	772	706
Volume-to-Capacity Ratio (*X*)	0.372	0.914	0.002	0.705	1.060	1.060	0.812	1.649	0.392	0.611	0.806	0.807
Back of Queue (*Q*), ft/ln (85 th percentile)	45	364.7	0.7	116.4	631.5	586.1	143.5	3051.4	148.9	66.9	442.6	408.2
Back of Queue (*Q*), veh/ln (85 th percentile)	1.8	14.4	0.0	4.7	24.9	23.4	5.7	120.1	6.0	2.7	17.4	16.3
Queue Storage Ratio (*RQ*) (85 th percentile)	0.32	0.00	0.01	0.78	0.00	0.00	0.00	0.00	2.48	0.37	0.00	0.00
Uniform Delay (*d 1*), s/veh	26.9	34.5	19.8	27.0	34.9	34.9	20.0	26.3	14.2	22.4	24.8	24.8
Incremental Delay (*d 2*), s/veh	0.5	13.0	0.0	8.9	56.6	58.2	11.5	294.9	1.6	3.8	8.8	9.6
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	27.4	47.4	19.8	35.9	91.5	93.1	31.5	321.3	15.8	26.2	33.6	34.4
Level of Service (LOS)	C	D	B	D	F	F	C	F	B	C	C	C
Approach Delay, s/veh / LOS	46.0	D		85.3	F		270.8	F		33.3	C	
Intersection Delay, s/veh / LOS	159.4						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.64	C	2.29	B	2.26	B	2.57	C
Bicycle LOS Score / LOS	1.24	A	1.47	A	3.12	C	1.56	B

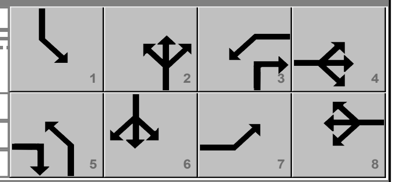
HCS 2010 Signalized Intersection Results Summary



General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM EXISTING+PROJECT AM PE…		
Project Description	EXISTING + 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	60	851	111	142	1140	40	292	2570	421	108	1075	82

Signal Information										
Cycle, s	96.0	Reference Phase	2	Green	5.7	1.3	38.0	4.8	1.2	25.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	0.0	4.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.8	29.0	10.0	30.2	15.0	47.3	9.7	42.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	4.3	25.3	7.7	28.2	11.5		5.4	
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase Call Probability	0.81	1.00	0.98	1.00	1.00		0.95	
Max Out Probability	1.00	1.00	1.00	1.00	1.00		1.00	

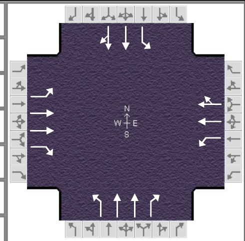
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	62	877	3	146	631	585	301	2649	290	111	624	568
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1773	1175	1810	1863	1724	1810	1773	1384	1810	1863	1692
Queue Service Time (g_s), s	2.3	23.3	0.2	5.7	26.2	26.2	9.5	43.3	12.4	3.4	29.2	29.3
Cycle Queue Clearance Time (g_c), s	2.3	23.3	0.2	5.7	26.2	26.2	9.5	43.3	12.4	3.4	29.2	29.3
Green Ratio (*g/C*)	0.31	0.26	0.37	0.32	0.27	0.27	0.53	0.45	0.51	0.46	0.40	0.40
Capacity (*c*), veh/h	166	924	483	199	507	470	325	1600	720	182	737	670
Volume-to-Capacity Ratio (*X*)	0.372	0.950	0.006	0.735	1.244	1.247	0.925	1.656	0.402	0.611	0.847	0.849
Back of Queue (*Q*), ft/ln (85 th percentile)	45	397.5	1.9	120.7	992.6	919.3	226.3	3067	150.1	69.3	470.6	432.5
Back of Queue (*Q*), veh/ln (85 th percentile)	1.8	15.6	0.1	4.8	39.1	36.8	9.1	120.7	6.0	2.8	18.5	17.3
Queue Storage Ratio (*RQ*) (85 th percentile)	0.32	0.00	0.03	0.80	0.00	0.00	0.00	0.00	2.50	0.38	0.00	0.00
Uniform Delay (d_1), s/veh	26.9	34.9	18.8	27.1	34.9	34.9	21.7	26.3	14.4	22.7	26.4	26.4
Incremental Delay (d_2), s/veh	0.5	18.4	0.0	11.7	125.5	127.8	30.8	298.0	1.7	3.8	11.6	12.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	27.4	53.3	18.8	38.8	160.4	162.7	52.6	324.3	16.0	26.5	37.9	39.1
Level of Service (LOS)	C	D	B	D	F	F	D	F	B	C	D	D
Approach Delay, s/veh / LOS	51.5		D	148.3		F	271.5		F	37.5		D
Intersection Delay, s/veh / LOS	172.2						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.2	C	2.8	C	2.8	C	3.1	C
Bicycle LOS Score / LOS	1.3	A	1.6	A	3.2	C	1.6	A

 HCS 2010™ Streets Version 6.90 Generated: 8/20/2022 8:51:29 PM

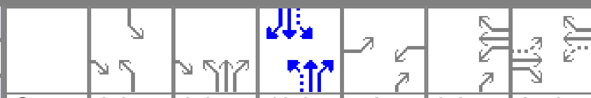
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM FUTURE WO PROJECT AM…		
Project Description	FUTURE WITHOUT PROJECT				

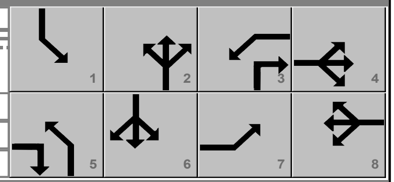


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	69	871	134	151	1029	43	303	2739	454	130	1147	134

Signal Information			
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	6.0	3.0	40.0	5.2	0.8	25.0
Yellow	4.0	4.0	4.0	4.0	0.0	4.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	9.2	29.0	10.0	29.8	17.0	51.0	10.0	44.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	4.9	27.0	8.0	27.8	14.2		6.3	
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase Call Probability	0.86	1.00	0.99	1.00	1.00		0.98	
Max Out Probability	1.00	1.00	1.00	1.00	1.00		1.00	

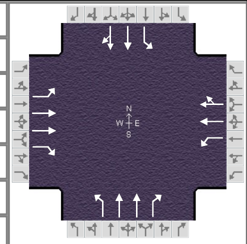
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	71	898	34	156	574	531	312	2824	324	134	694	627
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1781	1228	1810	1870	1727	1810	1781	1426	1810	1870	1676
Queue Service Time (g_s), s	2.9	25.0	1.8	6.0	25.8	25.8	12.2	47.0	13.8	4.3	35.4	35.8
Cycle Queue Clearance Time (g_c), s	2.9	25.0	1.8	6.0	25.8	25.8	12.2	47.0	13.8	4.3	35.4	35.8
Green Ratio (g/C)	0.30	0.25	0.38	0.31	0.26	0.26	0.55	0.47	0.53	0.46	0.40	0.40
Capacity (c), veh/h	166	890	508	181	483	446	325	1674	762	181	748	670
Volume-to-Capacity Ratio (X)	0.430	1.009	0.067	0.862	1.189	1.190	0.962	1.687	0.425	0.742	0.928	0.935
Back of Queue (Q), ft/ln (85 th percentile)	55.5	471.4	23.8	160.9	855.9	789.4	360.8	3371.3	168.6	100	596.6	550.5
Back of Queue (Q), veh/ln (85 th percentile)	2.2	18.6	1.0	6.4	33.7	31.6	14.4	132.7	6.7	4.0	23.5	22.0
Queue Storage Ratio (*RQ*) (85 th percentile)	0.40	0.00	0.40	1.07	0.00	0.00	0.00	0.00	2.81	0.56	0.00	0.00
Uniform Delay (d_1), s/veh	28.5	37.5	19.8	30.5	37.1	37.1	28.4	26.5	14.3	23.7	28.6	28.7
Incremental Delay (d_2), s/veh	0.7	32.3	0.3	31.0	104.1	105.8	39.3	311.8	1.7	13.5	19.3	22.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	29.2	69.8	20.0	61.5	141.2	142.8	67.7	338.3	16.0	37.3	48.0	50.7
Level of Service (LOS)	C	F	C	E	F	F	E	F	B	D	D	D
Approach Delay, s/veh / LOS	65.2		E	132.0		F	283.7		F	48.2		D
Intersection Delay, s/veh / LOS	178.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.64	C	2.29	B	2.26	B	2.57	C
Bicycle LOS Score / LOS	1.32	A	1.53	B	3.34	C	1.69	B

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 6:57:15 AM

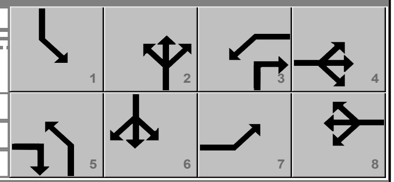
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	9/28/2021	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM FUTURE WITH PROJECT A…		
Project Description	FUTURE WITH 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	69	900	121	151	1200	43	352	2739	454	130	1147	134

Signal Information										
Cycle, s	100.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	6.0	1.0	42.0	5.2	0.8	25.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	0.0	4.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	9.2	29.0	10.0	29.8	15.0	51.0	10.0	46.0
Change Period, (*Y+R c*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (*g s*), s	4.9	27.0	8.0	27.8	13.0		6.2	
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase Call Probability	0.86	1.00	0.99	1.00	1.00		0.98	
Max Out Probability	1.00	1.00	1.00	1.00	1.00		1.00	

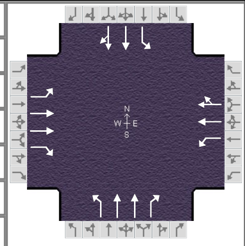
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	71	928	13	156	665	616	363	2824	324	134	696	625
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1781	1161	1810	1870	1727	1810	1781	1389	1810	1870	1664
Queue Service Time (*g s*), s	2.9	25.0	0.7	6.0	25.8	25.8	11.0	47.0	14.3	4.2	34.4	34.8
Cycle Queue Clearance Time (*g c*), s	2.9	25.0	0.7	6.0	25.8	25.8	11.0	47.0	14.3	4.2	34.4	34.8
Green Ratio (*g/C*)	0.30	0.25	0.36	0.31	0.26	0.26	0.55	0.47	0.53	0.48	0.42	0.42
Capacity (*c*), veh/h	166	890	460	181	483	446	301	1674	745	181	786	699
Volume-to-Capacity Ratio (*X*)	0.430	1.042	0.029	0.862	1.377	1.382	1.205	1.687	0.435	0.742	0.886	0.894
Back of Queue (*Q*), ft/ln (85 th percentile)	55.5	514.9	9	160.9	1255.1	1160.9	461.5	3371.3	169.9	97.2	553.8	507.7
Back of Queue (*Q*), veh/ln (85 th percentile)	2.2	20.3	0.4	6.4	49.4	46.4	18.5	132.7	6.8	3.9	21.8	20.3
Queue Storage Ratio (*RQ*) (85 th percentile)	0.40	0.00	0.15	1.07	0.00	0.00	0.00	0.00	2.83	0.54	0.00	0.00
Uniform Delay (*d 1*), s/veh	28.5	37.5	20.7	30.5	37.1	37.1	27.0	26.5	14.4	23.4	26.8	26.9
Incremental Delay (*d 2*), s/veh	0.7	41.7	0.0	31.0	182.1	185.4	119.2	311.8	1.8	13.5	14.0	16.2
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	29.2	79.2	20.7	61.5	219.2	222.5	146.2	338.3	16.2	36.9	40.8	43.1
Level of Service (LOS)	C	F	C	E	F	F	F	F	B	D	D	D
Approach Delay, s/veh / LOS	74.9		E	203.5		F	288.7		F	41.4		D
Intersection Delay, s/veh / LOS	194.5						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.64	C	2.29	B	2.26	B	2.58	C
Bicycle LOS Score / LOS	1.32	A	1.67	B	3.38	C	1.69	B

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 7:02:44 AM

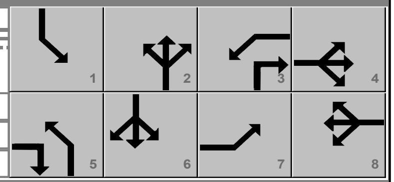
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM EXISTING PM PEAK HOUR....		
Project Description	EXISTING				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	96	897	123	190	1046	55	100	1051	200	116	1055	47

Signal Information										
Cycle, s	96.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	5.6	0.1	37.2	5.6	3.4	28.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	9.6	32.0	13.0	35.4	9.6	41.2	9.8	41.4
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	5.6	25.9	9.0	32.0	5.2		5.8	
Green Extension Time (g_e), s	0.0	1.3	0.1	0.0	0.1	0.0	0.0	0.0
Phase Call Probability	0.93	1.00	0.99	1.00	0.94		0.96	
Max Out Probability	0.70	1.00	1.00	1.00	0.03		1.00	

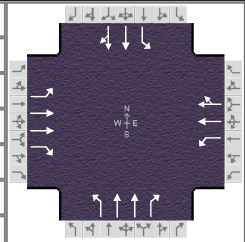
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	99	925	23	196	593	542	103	1084	62	120	590	546
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1781	1191	1810	1870	1709	1810	1781	1350	1810	1870	1728
Queue Service Time (g_s), s	3.6	23.9	1.2	7.0	30.0	30.0	3.2	25.7	2.4	3.8	27.0	27.1
Cycle Queue Clearance Time (g_c), s	3.6	23.9	1.2	7.0	30.0	30.0	3.2	25.7	2.4	3.8	27.0	27.1
Green Ratio (*g/C*)	0.35	0.29	0.35	0.40	0.33	0.33	0.45	0.39	0.48	0.45	0.39	0.39
Capacity (c), veh/h	180	1038	438	271	612	559	225	1382	668	247	728	673
Volume-to-Capacity Ratio (X)	0.550	0.891	0.052	0.722	0.968	0.969	0.459	0.784	0.093	0.484	0.810	0.811
Back of Queue (Q), ft/ln (85 th percentile)	69.1	373.8	14.8	127.4	559.8	517.1	58.6	371.7	33.5	68.4	433.7	402.6
Back of Queue (Q), veh/ln (85 th percentile)	2.8	14.7	0.6	5.1	22.0	20.7	2.3	14.6	1.3	2.7	17.1	16.1
Queue Storage Ratio (*RQ*) (85 th percentile)	0.49	0.00	0.25	0.85	0.00	0.00	0.00	0.00	0.56	0.38	0.00	0.00
Uniform Delay (d_1), s/veh	25.6	32.5	20.7	23.6	31.8	31.8	21.1	25.8	13.5	20.1	26.1	26.2
Incremental Delay (d_2), s/veh	1.0	9.5	0.0	5.4	28.3	30.1	0.5	4.5	0.3	0.5	9.5	10.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.5	42.0	20.7	29.0	60.1	62.0	21.6	30.4	13.8	20.6	35.6	36.4
Level of Service (LOS)	C	D	C	C	E	E	C	C	B	C	D	D
Approach Delay, s/veh / LOS	40.1	D		56.3	E		28.8	C		34.5	C	
Intersection Delay, s/veh / LOS	40.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.64	C	2.28	B	2.27	B	2.57	C
Bicycle LOS Score / LOS	1.35	A	1.59	B	1.52	B	1.52	B

 HCS7™ Streets Version 7.4 Generated: 8/20/2022 11:27:14 AM

HCS7 Signalized Intersection Results Summary

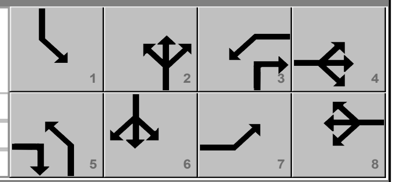
General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM EXISTING+PROJECT PM PE…		
Project Description	EXISTING + 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	96	1041	164	190	1088	55	112	1051	200	116	1055	47

Signal Information			
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	0.0	0.0	0.0	0.0	0.0	0.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	9.5	32.6	12.4	35.5	9.7	35.3	9.7	35.4
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Clearance Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase Call Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

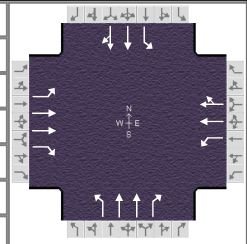
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Queue Service Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
Green Ratio (*g/C*)	0.38	0.32	0.38	0.42	0.35	0.35	0.41	0.35	0.44	0.41	0.35	0.35
Capacity (*c*), veh/h	194	1132	467	261	654	596	207	1240	588	228	652	599
Volume-to-Capacity Ratio (*X*)	0.511	0.948	0.124	0.752	0.942	0.944	0.559	0.874	0.105	0.525	0.907	0.908
Back of Queue (*Q*), ft/ln (85 th percentile)	60.3	431	34	118	512.3	473.9	66.5	389.4	34.3	69.1	476.6	441.7
Back of Queue (*Q*), veh/ln (85 th percentile)	2.4	17.0	1.4	4.7	20.2	19.0	2.7	15.3	1.4	2.8	18.8	17.7
Queue Storage Ratio (*RQ*) (85 th percentile)	0.43	0.00	0.57	0.79	0.00	0.00	0.00	0.00	0.57	0.38	0.00	0.00
Uniform Delay (d_1), s/veh	22.9	30.0	18.2	21.7	28.4	28.4	22.0	27.5	14.8	21.3	27.9	27.9
Incremental Delay (d_2), s/veh	0.8	15.7	0.0	6.1	21.7	23.5	0.9	8.7	0.4	0.8	18.6	20.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	23.7	45.7	18.2	27.8	50.0	51.9	22.9	36.2	15.1	22.2	46.5	47.9
Level of Service (LOS)	C	D	B	C	D	D	C	D	B	C	D	D
Approach Delay, s/veh / LOS	42.7		D	47.6		D	33.9		C	44.8		D
Intersection Delay, s/veh / LOS	42.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.63	C	2.28	B	2.28	B	2.58	C
Bicycle LOS Score / LOS	1.50	B	1.62	B	1.53	B	1.52	B

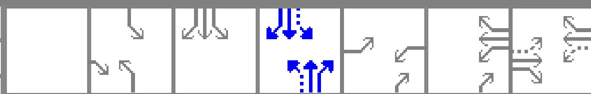
 HCS7™ Streets Version 7.4 Generated: 8/20/2022 11:37:25 AM

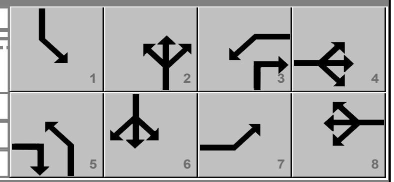
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM FUTURE WO PROJECT PM...		
Project Description	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	139	956	175	208	1107	78	121	1127	214	135	1143	76





Signal Information										
Cycle, s	90.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	5.9	0.5	28.3	6.0	2.7	30.5
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0

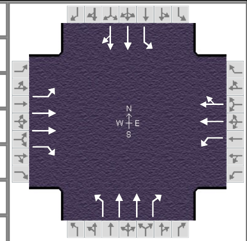
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.0	34.5	12.7	37.3	9.9	32.3	10.4	32.8
Change Period, (*Y+R c*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (*g s*), s	6.6	24.8	8.7	31.8	6.1		6.6	
Green Extension Time (*g e*), s	0.0	3.5	0.1	1.5	0.1	0.0	0.0	0.0
Phase Call Probability	0.97	1.00	1.00	1.00	0.96		0.97	
Max Out Probability	1.00	0.67	1.00	1.00	0.55		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	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	143	986	57	214	641	581	125	1162	3	139	658	599
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1781	1224	1810	1870	1687	1810	1781	1300	1810	1870	1695
Queue Service Time (*g s*), s	4.6	22.8	2.6	6.7	29.6	29.8	4.1	28.3	0.1	4.6	28.8	28.8
Cycle Queue Clearance Time (*g c*), s	4.6	22.8	2.6	6.7	29.6	29.8	4.1	28.3	0.1	4.6	28.8	28.8
Green Ratio (*g/C*)	0.41	0.34	0.40	0.44	0.37	0.37	0.38	0.31	0.41	0.39	0.32	0.32
Capacity (*c*), veh/h	208	1208	517	306	691	624	199	1121	558	209	599	543
Volume-to-Capacity Ratio (*X*)	0.688	0.816	0.110	0.701	0.927	0.931	0.627	1.036	0.006	0.667	1.099	1.103
Back of Queue (*Q*), ft/ln (85 th percentile)	95.7	331.4	31.6	120.5	505.3	465.7	77	559	1.7	92.6	764	703.4
Back of Queue (*Q*), veh/ln (85 th percentile)	3.8	13.0	1.3	4.8	19.9	18.6	3.1	22.0	0.1	3.7	30.1	28.1
Queue Storage Ratio (*RQ*) (85 th percentile)	0.68	0.00	0.53	0.80	0.00	0.00	0.00	0.00	0.03	0.51	0.00	0.00
Uniform Delay (*d 1*), s/veh	22.4	27.2	16.7	20.3	27.2	27.3	23.0	30.8	15.6	22.8	30.6	30.6
Incremental Delay (*d 2*), s/veh	7.7	3.9	0.0	4.7	17.8	19.8	1.2	36.7	0.0	5.8	66.7	69.9
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	30.1	31.1	16.7	25.0	45.0	47.1	24.2	67.6	15.6	28.6	97.2	100.5
Level of Service (LOS)	C	C	B	C	D	D	C	F	B	C	F	F
Approach Delay, s/veh / LOS	30.3	C		42.9	D		63.3	E		91.8	F	
Intersection Delay, s/veh / LOS	57.9						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.73	C	2.27	B	2.28	B	2.60	C
Bicycle LOS Score / LOS	1.47	A	1.67	B	1.55	B	1.64	B

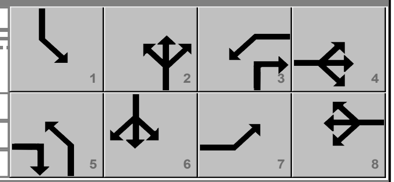
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	Aug 15, 2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.97
Urban Street	WESTERN AVENUE	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	SANTA MONICA BL	File Name	6 WESTERN & SM FUTURE WITH PROJECT P...		
Project Description	FUTURE WITH 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	139	1100	216	208	1149	78	133	1127	214	135	1143	76

Signal Information										
Cycle, s	90.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	6.2	0.2	27.8	6.0	2.7	31.2
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0
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	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.0	35.2	12.7	37.8	10.4	32.0	10.2	31.8
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	6.5	29.5	8.7	33.2	6.6		6.7	
Green Extension Time (g_e), s	0.0	1.3	0.1	0.6	0.1	0.0	0.0	0.0
Phase Call Probability	0.97	1.00	1.00	1.00	0.97		0.97	
Max Out Probability	1.00	1.00	1.00	1.00	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	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	143	1134	89	214	665	600	137	1162	88	139	661	596
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1781	1178	1810	1870	1680	1810	1781	1241	1810	1870	1679
Queue Service Time (g_s), s	4.5	27.5	4.3	6.7	31.0	31.2	4.6	28.0	4.1	4.7	27.8	27.8
Cycle Queue Clearance Time (g_c), s	4.5	27.5	4.3	6.7	31.0	31.2	4.6	28.0	4.1	4.7	27.8	27.8
Green Ratio (g/C)	0.41	0.35	0.42	0.45	0.38	0.38	0.38	0.31	0.41	0.38	0.31	0.31
Capacity (c), veh/h	204	1233	518	275	703	631	209	1108	534	204	577	518
Volume-to-Capacity Ratio (X)	0.704	0.920	0.171	0.780	0.945	0.951	0.656	1.049	0.164	0.682	1.145	1.151
Back of Queue (Q), ft/ln (85 th percentile)	96.9	421.6	49.7	130.8	541.4	500.1	84.7	575.7	54	96.9	844	770.9
Back of Queue (Q), veh/ln (85 th percentile)	3.9	16.6	2.0	5.2	21.3	20.0	3.4	22.7	2.2	3.9	33.2	30.8
Queue Storage Ratio (RQ) (85 th percentile)	0.69	0.00	0.83	0.87	0.00	0.00	0.00	0.00	0.90	0.54	0.00	0.00
Uniform Delay (d_1), s/veh	22.2	28.2	16.5	20.9	27.2	27.3	23.0	31.0	17.0	23.2	31.1	31.1
Incremental Delay (d_2), s/veh	9.0	10.9	0.1	9.9	21.2	23.9	1.9	40.7	0.7	7.5	84.5	88.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	31.2	39.1	16.6	30.8	48.4	51.2	24.9	71.7	17.7	30.7	115.6	119.4
Level of Service (LOS)	C	D	B	C	D	D	C	F	B	C	F	F
Approach Delay, s/veh / LOS	36.8	D		47.0	D		63.7	E		108.8	F	
Intersection Delay, s/veh / LOS	63.9						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.61	C	2.27	B	2.28	B	2.62	C
Bicycle LOS Score / LOS	1.61	B	1.71	B	1.63	B	1.64	B

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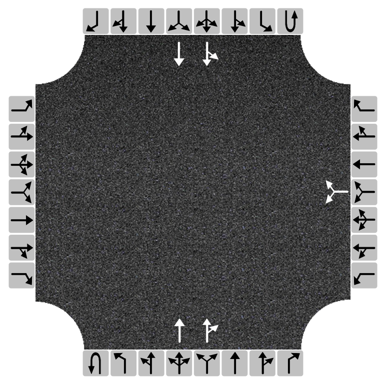
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	A
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	SOUTH DRIVEWAY DROP-OFF
Analysis Year	2026	North/South Street	WILTON PLACE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume, V (veh/h)						4		4			853	23		23	994	
Percent Heavy Vehicles (%)						3		3						3		
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)						7.5		6.9						4.1		
Critical Headway (sec)						6.86		6.96						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

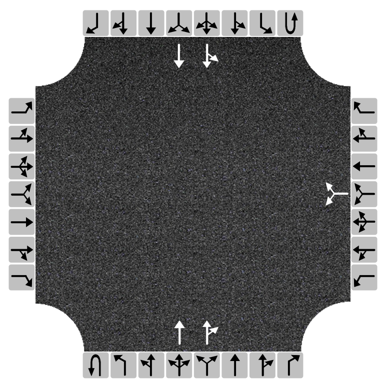
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							8							24		
Capacity, c (veh/h)							185							730		
v/c Ratio							0.05							0.03		
95% Queue Length, Q_{95} (veh)							0.1							0.1		
Control Delay (s/veh)							25.4							10.1		
Level of Service, LOS							D							B		
Approach Delay (s/veh)					25.4								0.6			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	A
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	SOUTH DRIVEWAY DROP-OFF
Analysis Year	2026	North/South Street	WILTON PLACE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume, V (veh/h)						19		19			922	5		17	1030	
Percent Heavy Vehicles (%)						0		0						3		
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)						7.5		6.9						4.1		
Critical Headway (sec)						6.80		6.90						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.23		

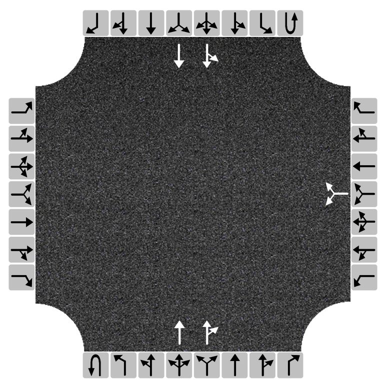
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							40							18		
Capacity, c (veh/h)							174							697		
v/c Ratio							0.23							0.03		
95% Queue Length, Q_{95} (veh)							0.9							0.1		
Control Delay (s/veh)							31.9							10.3		
Level of Service, LOS							D							B		
Approach Delay (s/veh)					31.9								0.5			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	B
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	NORTH DWY SELF&VALET
Analysis Year	2026	North/South Street	WILTON PLACE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume, V (veh/h)						11		15			853	23		23	994	
Percent Heavy Vehicles (%)						3		3						3		
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)						7.5		6.9						4.1		
Critical Headway (sec)						6.86		6.96						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

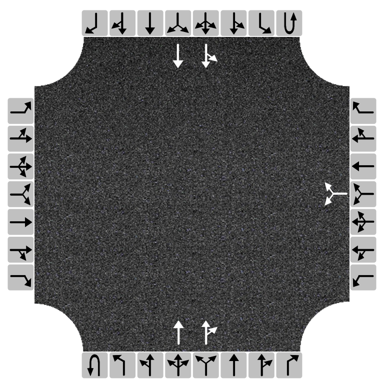
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							27							24		
Capacity, c (veh/h)							205							730		
v/c Ratio							0.13							0.03		
95% Queue Length, Q_{95} (veh)							0.5							0.1		
Control Delay (s/veh)							25.2							10.1		
Level of Service, LOS							D							B		
Approach Delay (s/veh)					25.2								0.6			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	B
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	NORTH DWY SELF&VALET
Analysis Year	2026	North/South Street	WILTON PLACE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume, V (veh/h)						57		76			922	15		21	1042	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.86		6.96						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

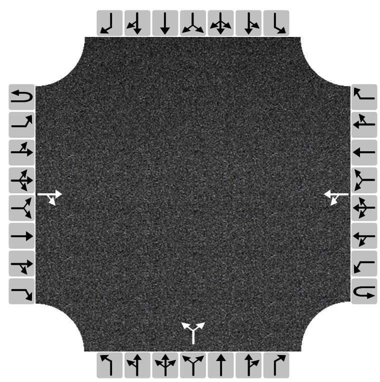
Delay, Queue Length, and Level of Service

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Flow Rate, v (veh/h)							140							22		
Capacity, c (veh/h)							181							690		
v/c Ratio							0.77							0.03		
95% Queue Length, Q_{95} (veh)							5.1							0.1		
Control Delay (s/veh)							71.3							10.4		
Level of Service, LOS							F							B		
Approach Delay (s/veh)					71.3								0.6			
Approach LOS					F											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	C
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	WEST DWY STUDIO VEHICLES
Analysis Year	2026	North/South Street	VIRGINIA AVENUE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			211	6		3	37			6		9				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Flow Rate, v (veh/h)						3					16					
Capacity, c (veh/h)						1333					769					
v/c Ratio						0.00					0.02					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.7					9.8					
Level of Service, LOS						A					A					
Approach Delay (s/veh)					0.6				9.8							
Approach LOS									A							

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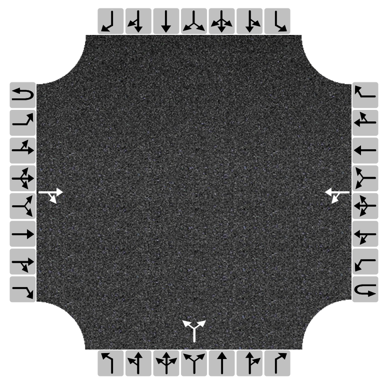
C VIRGINIA & W DWY STUDIO VEH AM PEAK.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	C
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	WEST DWY STUDIO VEHICLES
Analysis Year	2026	North/South Street	VIRGINIA AVENUE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			211	6		3	37			6		9				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

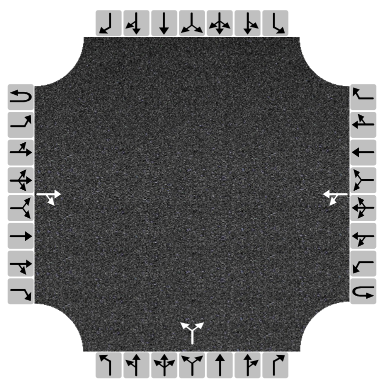
Delay, Queue Length, and Level of Service

	EB U	EB L	EB T	EB R	WB U	WB L	WB T	WB R	NB U	NB L	NB T	NB R	SB U	SB L	SB T	SB R
Flow Rate, v (veh/h)						3					16					
Capacity, c (veh/h)						1339					772					
v/c Ratio						0.00					0.02					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.7					9.8					
Level of Service, LOS						A					A					
Approach Delay (s/veh)					0.6				9.8							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	D
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	E DWY STUDIO VEH & LOAD
Analysis Year	2026	North/South Street	VIRGINIA AVENUE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			69	2		8	89			1		3				
Percent Heavy Vehicles (%)						3				3		3				
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				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

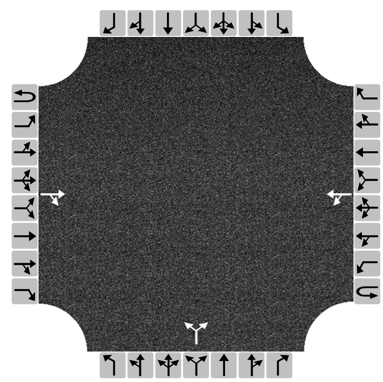
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						8					4					
Capacity, c (veh/h)						1516					930					
v/c Ratio						0.01					0.00					
95% Queue Length, Q_{95} (veh)						0.0					0.0					
Control Delay (s/veh)						7.4					8.9					
Level of Service, LOS						A					A					
Approach Delay (s/veh)					0.6				8.9							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	D
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	E DWY STUDIO VEH & LOAD
Analysis Year	2026	North/South Street	VIRGINIA AVENUE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			211	7		7	37			5		11				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Approach	Eastbound				Westbound				Northbound				Southbound			
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

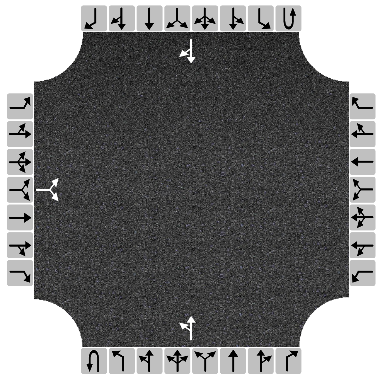
Approach	Eastbound				Westbound				Northbound				Southbound			
Flow Rate, v (veh/h)						7					17					
Capacity, c (veh/h)						1332					774					
v/c Ratio						0.01					0.02					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.7					9.8					
Level of Service, LOS						A					A					
Approach Delay (s/veh)					1.3				9.8							
Approach LOS									A							

 HCS7™ TWSC Version 7.4 Generated: 8/20/2022 1:21:22 PM
D VIRGINIA & E DWY STUDIO & LOADING PM PEAK.xtw

HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	E
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-8-22	East/West Street	N DWY SELF PARK & VALET
Analysis Year	2026	North/South Street	ST ANDREWS PLACE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
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	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		11		29						304	68				231	164
Percent Heavy Vehicles (%)		3		3						3						
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)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			43							320						
Capacity, c (veh/h)			392							1136						
v/c Ratio			0.11							0.28						
95% Queue Length, Q_{95} (veh)			0.4							1.2						
Control Delay (s/veh)			15.3							9.4						
Level of Service, LOS			C							A						
Approach Delay (s/veh)	15.3								8.2							
Approach LOS	C															

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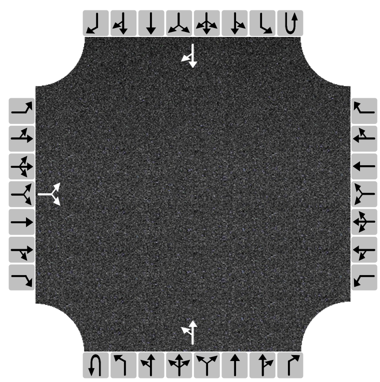
E ST ANDREWS & N DWY SELF PK & VALET AM PEAK.xtw

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	E
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	N DWY SELF PARK & VALET
Analysis Year	2026	North/South Street	ST ANDREWS PLACE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		57		152						67	130				395	36
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Approach	Eastbound				Westbound				Northbound				Southbound			
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

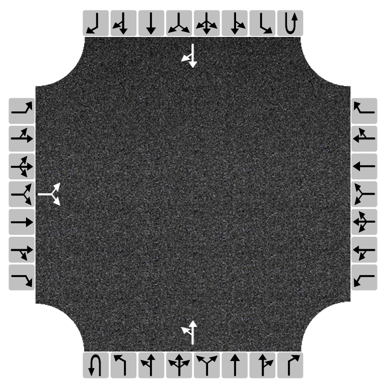
Delay, Queue Length, and Level of Service

Approach	Eastbound				Westbound				Northbound				Southbound			
Flow Rate, v (veh/h)			220							71						
Capacity, c (veh/h)			524							1100						
v/c Ratio			0.42							0.06						
95% Queue Length, Q_{95} (veh)			2.1							0.2						
Control Delay (s/veh)			16.8							8.5						
Level of Service, LOS			C							A						
Approach Delay (s/veh)	16.8								3.3							
Approach LOS	C															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	F
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	N DWY DROP-OFF&PICK-UP
Analysis Year	2026	North/South Street	ST ANDREWS PLACE
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		4		4						23	68				231	23
Percent Heavy Vehicles (%)		0		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)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

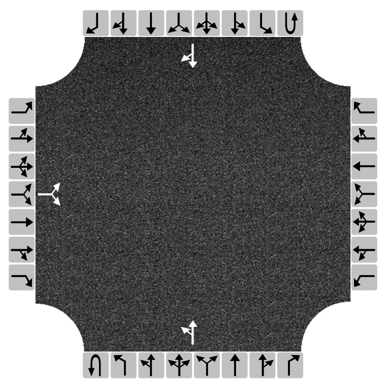
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			8							24						
Capacity, c (veh/h)			693							1309						
v/c Ratio			0.01							0.02						
95% Queue Length, Q_{95} (veh)			0.0							0.1						
Control Delay (s/veh)			10.3							7.8						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	10.3								2.1							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LF	Intersection	F
Agency/Co.	OTC, INC	Jurisdiction	LOS ANGELES
Date Performed	8-15-22	East/West Street	N DWY DROP-OFF&PICK-UP
Analysis Year	2026	North/South Street	ST ANDREWS PLACE
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	FUTURE WITH PROJECT		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		19		19						5	130				385	5
Percent Heavy Vehicles (%)		3		3						3						
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)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

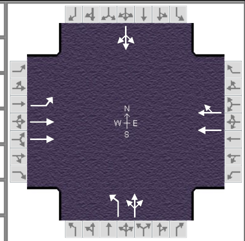
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			40							5						
Capacity, c (veh/h)			554							1141						
v/c Ratio			0.07							0.00						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			12.0							8.2						
Level of Service, LOS			B							A						
Approach Delay (s/veh)	12.0								0.3							
Approach LOS	B															

 HCS7™ TWSC Version 7.4 Generated: 8/20/2022 1:52:33 PM
F ST ANDREWS & S DWY DROP OFF & PICK UP PM PEAK.xtw

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	AM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	NB 101 FWY OFF - SE…	File Name	CT 101 & SM FUT W AM.xus		
Project Description	FUTURE W 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	29	841			930	24	845	101	85	38	0	94

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	16.0	26.0	6.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

1 2 3 4 5 6 7 8

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6		2		4		8
Case Number		6.0		8.0		10.0		12.0
Phase Duration, s		20.0		20.0		30.0		10.0
Change Period, (*Y+R c*), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.3
Queue Clearance Time (*g s*), s						28.0		7.1
Green Extension Time (*g e*), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		0.91
Max Out Probability						1.00		1.00

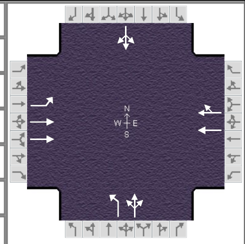
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	32	914			521	516	918	202			143	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	553	1809			1900	1883	1810	1756			1663	
Queue Service Time (*g s*), s	0.0	14.9			16.6	16.0	26.0	4.4			5.1	
Cycle Queue Clearance Time (*g c*), s	16.0	14.9			16.6	16.0	26.0	4.4			5.1	
Green Ratio (*g/C*)	0.27	0.27			0.27	0.27	0.43	0.43			0.10	
Capacity (*c*), veh/h	120	965			507	502	784	761			166	
Volume-to-Capacity Ratio (*X*)	0.263	0.948			1.028	1.028	1.171	0.266			0.863	
Back of Queue (*Q*), ft/ln (85 th percentile)	27.1	275.8			424.2	421.5	945.2	65.6			132.8	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.1	11.0			17.0	16.9	37.8	2.6			5.3	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.00	0.00			0.00	0.00	0.62	0.31			0.00	
Uniform Delay (*d 1*), s/veh	30.0	21.6			22.0	22.0	17.0	10.9			26.6	
Incremental Delay (*d 2*), s/veh	5.3	18.8			47.3	47.5	90.5	0.1			33.1	
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	35.3	40.4			69.3	69.5	107.5	11.0			59.7	
Level of Service (LOS)	D	D			F	F	F	B			E	
Approach Delay, s/veh / LOS	40.2	D		69.4	E		90.1	F		59.7	E	
Intersection Delay, s/veh / LOS	67.6						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.68	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	1.27	A	1.34	A	2.34	B	0.72	A

 HCS7™ Streets Version 7.4 Generated: 8/23/2022 9:32:01 PM

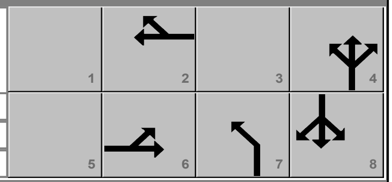
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OVERLAND TRAFFIC CONSULTANTS			Duration, h	0.25
Analyst	LF	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	LOS ANGELES	Time Period	PM PEAK HOUR	PHF	0.92
Urban Street	SANTA MONICA BL	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	NB 101 FWY OFF - SE…	File Name	CT 101 & SM FUT W PM.xus		
Project Description	FUTURE W 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	42	1103			883	39	620	120	55	29	0	94

Signal Information										
Cycle, s	60.0	Reference Phase	2							
Offset, s	0	Reference Point	End	Green	18.0	24.0	6.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	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		6		2		4		8
Case Number		6.0		8.0		10.0		12.0
Phase Duration, s		22.0		22.0		28.0		10.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.3
Queue Clearance Time (g_s), s						23.3		6.8
Green Extension Time (g_e), s		0.0		0.0		0.7		0.0
Phase Call Probability						1.00		0.89
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	1	6			2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	46	1199			505	497	674	190			134	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	571	1809			1900	1871	1810	1798			1653	
Queue Service Time (g_s), s	2.0	18.0			15.9	15.2	21.3	4.3			4.8	
Cycle Queue Clearance Time (g_c), s	18.0	18.0			15.9	15.2	21.3	4.3			4.8	
Green Ratio (*g/C*)	0.30	0.30			0.30	0.30	0.40	0.40			0.10	
Capacity (*c*), veh/h	139	1083			569	560	725	721			165	
Volume-to-Capacity Ratio (*X*)	0.327	1.107			0.888	0.888	0.929	0.264			0.809	
Back of Queue (*Q*), ft/ln (85 th percentile)	38.5	532.2			296.9	294	350.7	66.5			113.6	
Back of Queue (*Q*), veh/ln (85 th percentile)	1.5	21.3			11.9	11.8	14.0	2.7			4.5	
Queue Storage Ratio (*RQ*) (85 th percentile)	0.00	0.00			0.00	0.00	0.23	0.31			0.00	
Uniform Delay (d_1), s/veh	29.6	21.0			20.1	20.1	17.2	12.0			26.4	
Incremental Delay (d_2), s/veh	6.2	61.7			18.4	18.6	16.1	0.1			23.5	
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	35.7	82.7			38.4	38.6	33.3	12.1			49.9	
Level of Service (LOS)	D	F			D	D	C	B			D	
Approach Delay, s/veh / LOS	81.0		F	38.5		D	28.6		C	49.9		D
Intersection Delay, s/veh / LOS	52.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.68	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	1.51	B	1.31	A	1.91	B	0.71	A

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SIGNAL WARRANT WORKSHEETS

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ___________

MAJOR ST: WILTON PL

MINOR ST: LA MIRANDA AV

Critical Approach Speed: MPH ___ or Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph…………..………… ☐
or
In built up area of isolated community of < 10,000 population……….…………… ☐
RURAL (R) ☒ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

Condition A
Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	Hours: 8AM	9AM	10AM	16PM	17PM	18PM	
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)	1308	1852	1433	1202	1409	1599	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	22	31	17	12	23	28	

Condition B
Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	Hours: 8AM	9AM	10AM	16PM	17PM	18PM	
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)	1308	1852	1433	1202	1409	1599	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	22	31	17	12	23	28	

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☐

Eight-Hour Vehicular Volume WARRANT 1 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

Projected Volumes

N/A ☒

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1..........................	1..........................	8,000	5,600	2,400	1,680
2 or More................	1..........................	9,600	6,720	2,400	1,680
2 or More................	2 or More................	9,600	6,720	3,200	2,240
1..........................	2 or More................	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1..........................	1..........................	12,000	8,400	1,200	850
2 or More................	1..........................	14,400	10,080	1,200	850
2 or More................	2 or More................	14,400	10,080	1,600	1,120
1..........................	2 or More................	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more...... ______ A ______ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* **Note:** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

N/A	☐
SATISFIED YES	☐
NO	☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

APPROACH LANES	One	2 or More	Hours: 8AM	9AM	17P	18P
Both Approaches - Major Street			1308	1852	1409	1599
Higher Approach - Minor Street			22	31	23	28

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage)	50 %	

	YES	NO
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

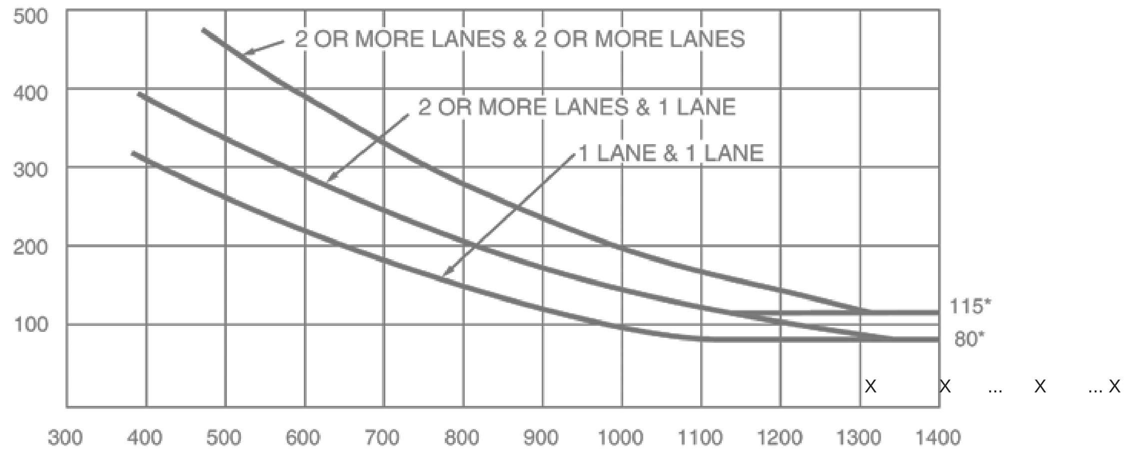
Four-Hour Vehicular Volume WARRANT 2 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

MINOR STREET
HIGHER VOLUME
APPROACH—VPH



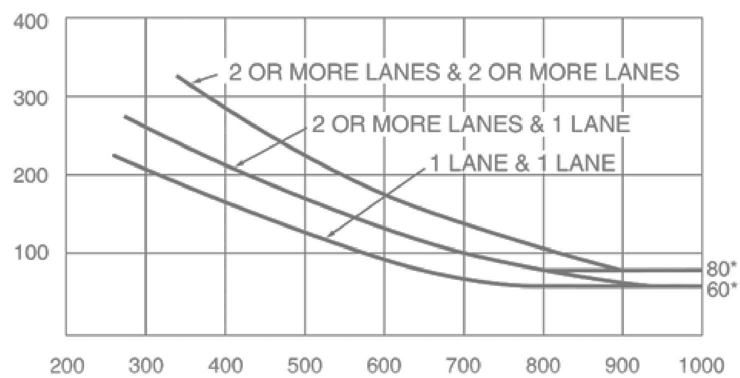
MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

MINOR STREET
HIGHER VOLUME
APPROACH—VPH



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour WARRANT 3

	SATISFIED	
N/A	☒	
YES	☐	
NO	☐	

☆ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ☆

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	YES	☐	NO	☐

Name ______________________________

PART A

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

SATISFIED YES ☐ NO ☐

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	☐	☐	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED YES ☐ NO ☐

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street			
Higher Approach - Minor Street			

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* YES ☐ NO ☐

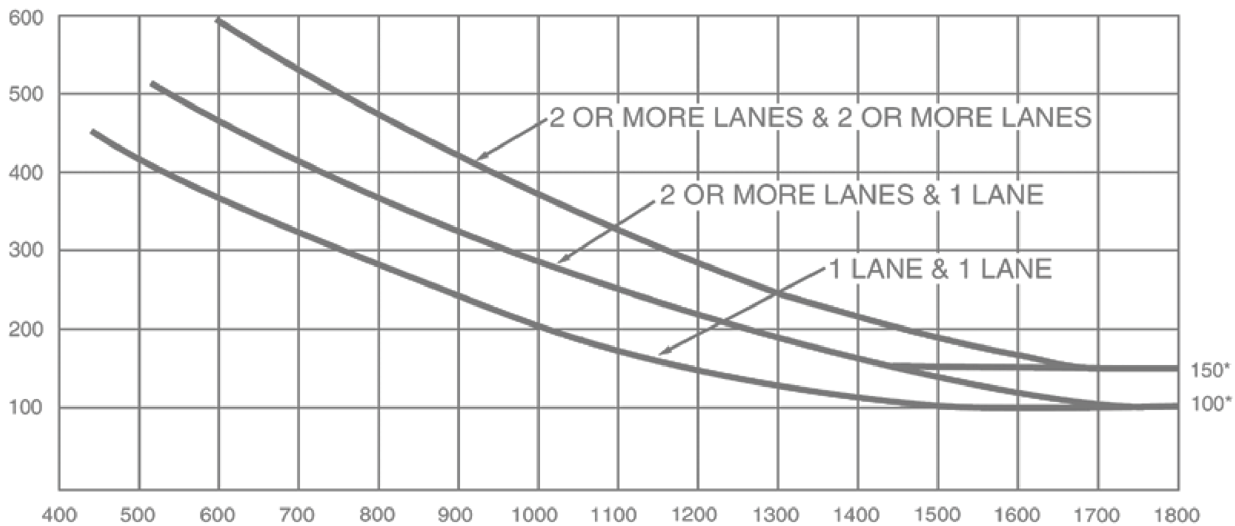
(If Yes, fill in percentage) ________%

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) <u>OR</u>, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☐

Peak Hour WARRANT 3 *(continued)*

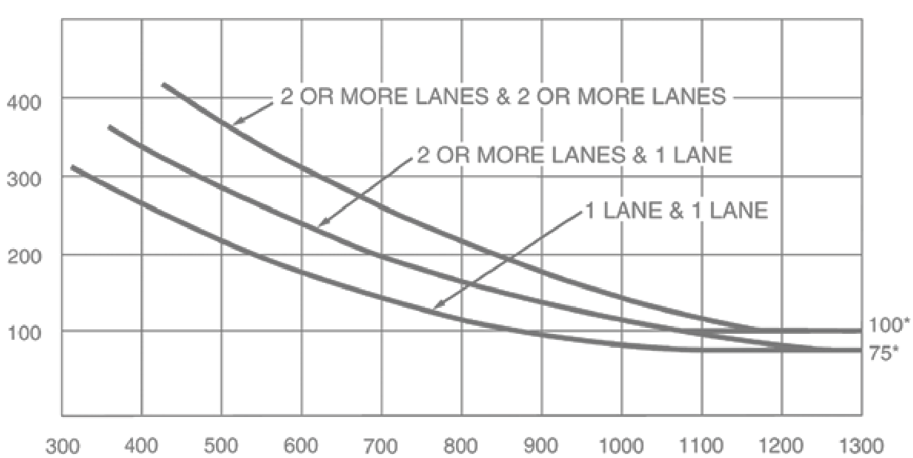
✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

URBAN
Figure 4C-3. Warrant 3, Peak Hour



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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED YES ☐ NO ☐

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	9AM	10AM	4PM	5PM
Vehicles per hour on major street for 4 hours	*1852*	*1433*	*1409*	*1599*
Pedestrians crossing major street per hour for highest 4 hours	*17*	*7*	*19*	*7*

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	5PM
Vehicles per hour on major street for 1 hour	*1409*
Pedestrians crossing major street per hour for highest 1 hour	*19*

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

PART 2

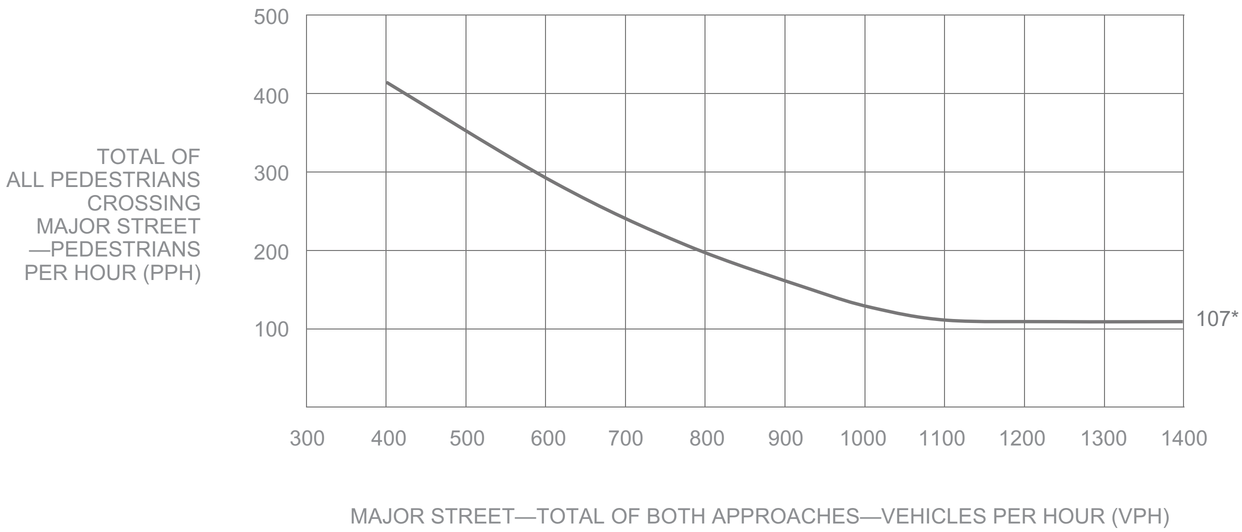
SATISFIED YES ☐ NO ☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

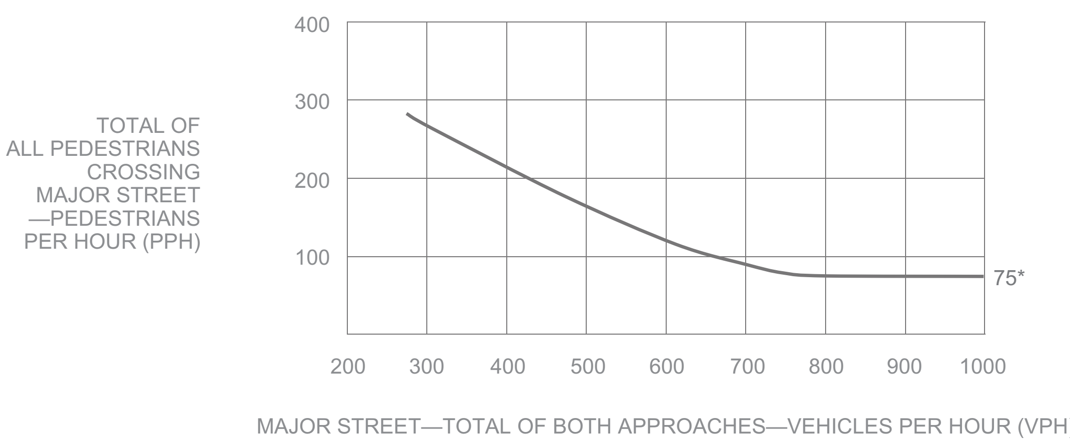
☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

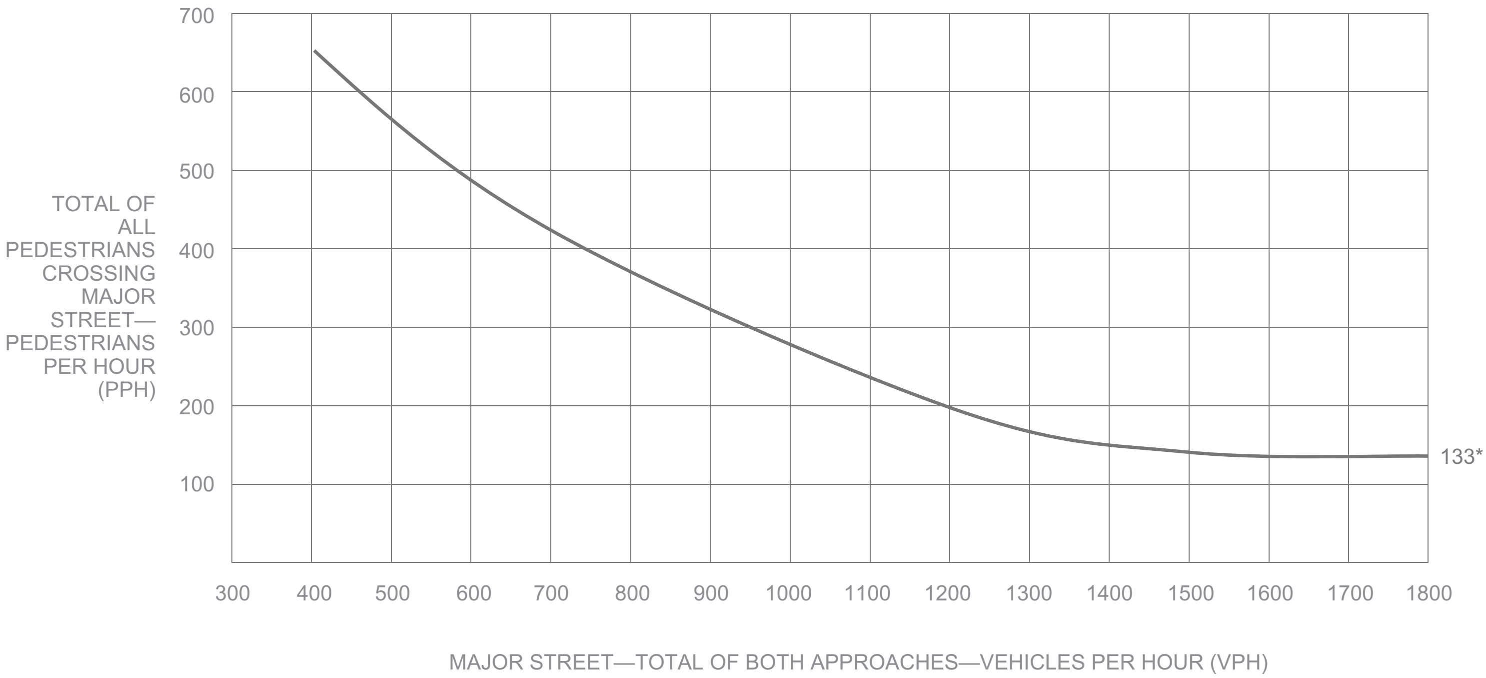


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

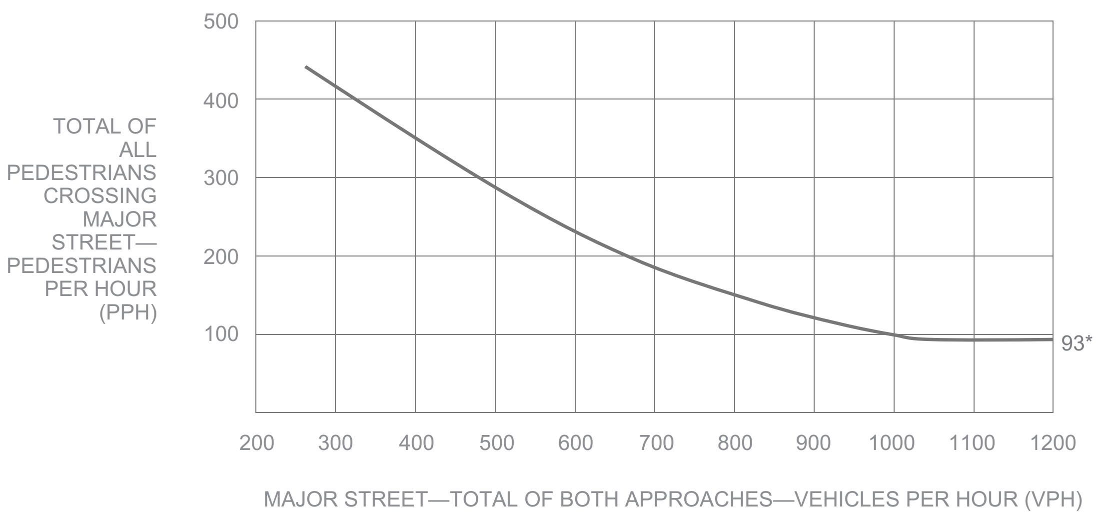
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *1600* ft, S *345* ft, E *N/A* ft, W *650* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☒

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	**CONDITIONS**	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULLFILLED YES	FULLFILLED NO
1000 Veh / Hr	During Typical Weekday Peak Hour ________________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B		YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒
SATISFIED YES ☐
NO ☐

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

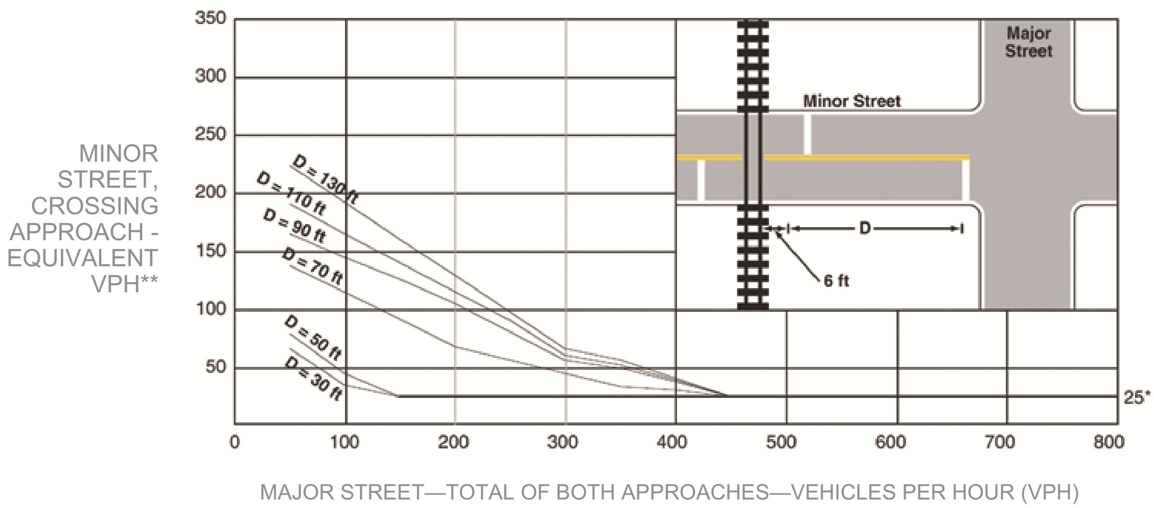
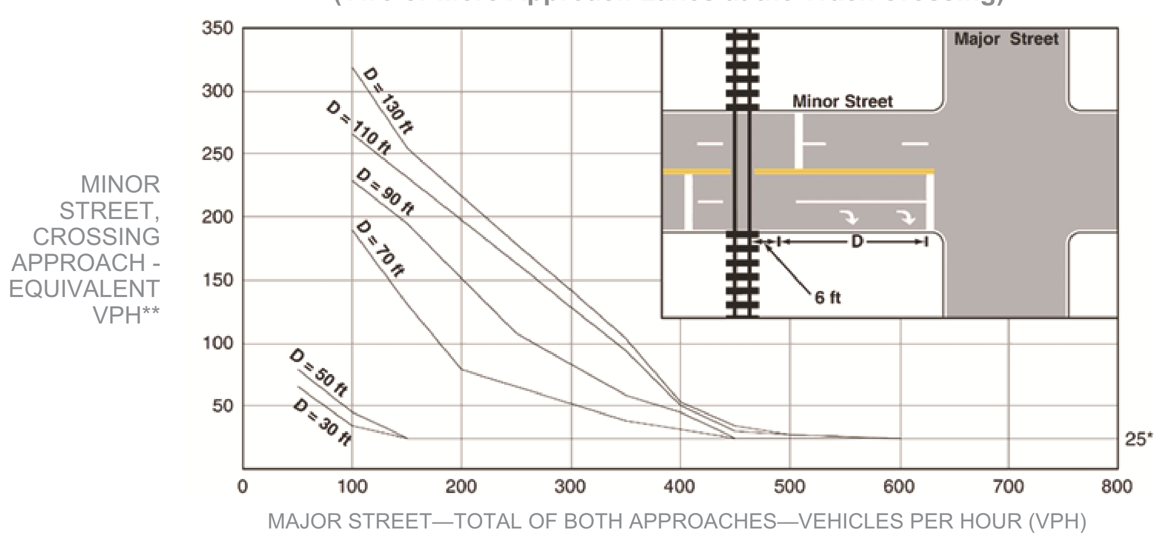


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A	☐
SATISFIED YES	☐
NO	☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied

SATISFIED	YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied*)

	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied*)

	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ____________

MAJOR ST: WILTON PL

MINOR ST: LA MIRANDA AV

Critical Approach Speed: MPH ____ or Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph.......................... ☐
or
In built up area of isolated community of < 10,000 population.......................... ☐

RURAL (R) ☒ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐

SATISFIED YES ☐

NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	Hours:	8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)		1336	1880	1461	1229	1436	1626	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)		45	47	45	54	79	72	

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	Hours:	8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)		1336	1880	1461	1229	1436	1626	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)		45	47	45	54	79	72	

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☐

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Projected Volumes

N/A ☒

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1……………………….	1……………………….	8,000	5,600	2,400	1,680
2 or More……………..	1……………………….	9,600	6,720	2,400	1,680
2 or More……………..	2 or More……………..	9,600	6,720	3,200	2,240
1……………………….	2 or More……………..	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1……………………….	1……………………….	12,000	8,400	1,200	850
2 or More……………..	1……………………….	14,400	10,080	1,200	850
2 or More……………..	2 or More……………..	14,400	10,080	1,600	1,120
1……………………….	2 or More……………..	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more…… ____ A ____ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* **Note:** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

APPROACH LANES	One	2 or More	Hours: 8AM	9AM	17P	18P
Both Approaches - Major Street	✓		1336	1880	1436	1626
Higher Approach - Minor Street	✓		47	45	79	72

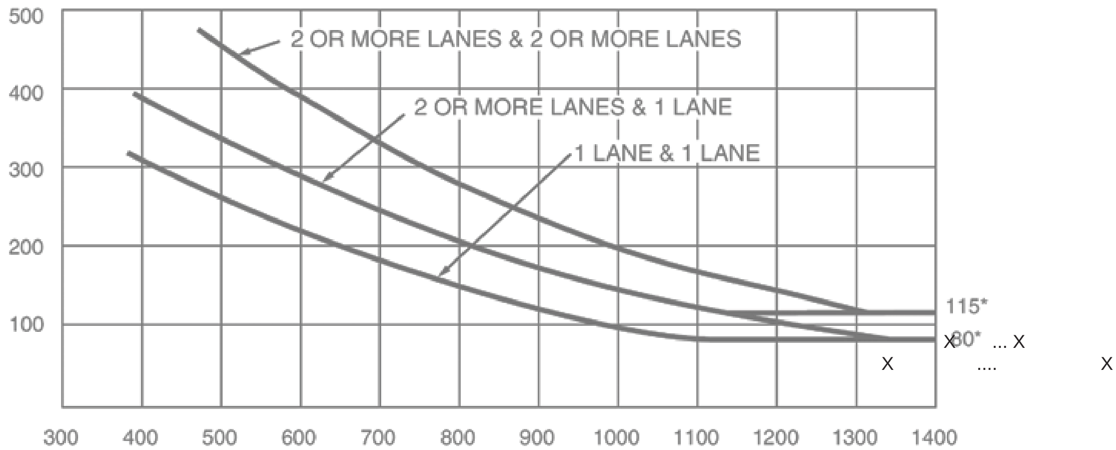
	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage) 50 %		
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

MINOR STREET
HIGHER VOLUME
APPROACH—VPH

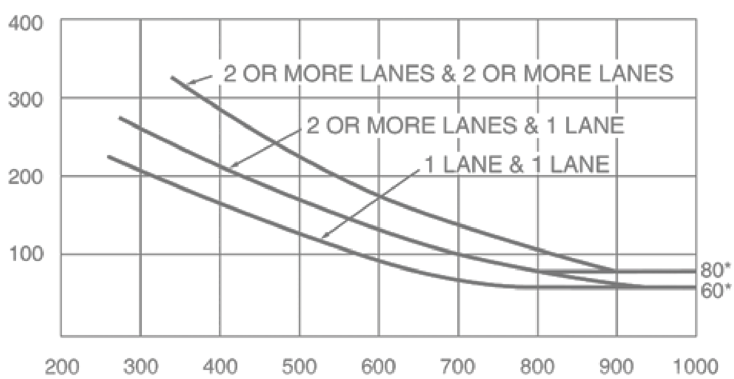


MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

MINOR STREET
HIGHER VOLUME
APPROACH—VPH



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour — WARRANT 3

N/A	☐
SATISFIED YES	☐
NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

	YES	NO
Unusual facility per Note b.	☒	☐

Name: STUDIO & CREATIVE OFFICE

PART A

All parts 1, 2, and 3 below must be satisfied
for the same one hour, for any four consecutive 15-minute periods)

SATISFIED: YES ☐ NO ☒

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	☐	☒	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED: YES ☐ NO ☒

APPROACH LANES	One	2 or More	Hour: 5PM
Both Approaches - Major Street	✓		1636
Higher Approach - Minor Street	✓		79

RIGHT TURN REDUCTION APPLICATION *MINOR STREET*: YES ☒ NO ☐

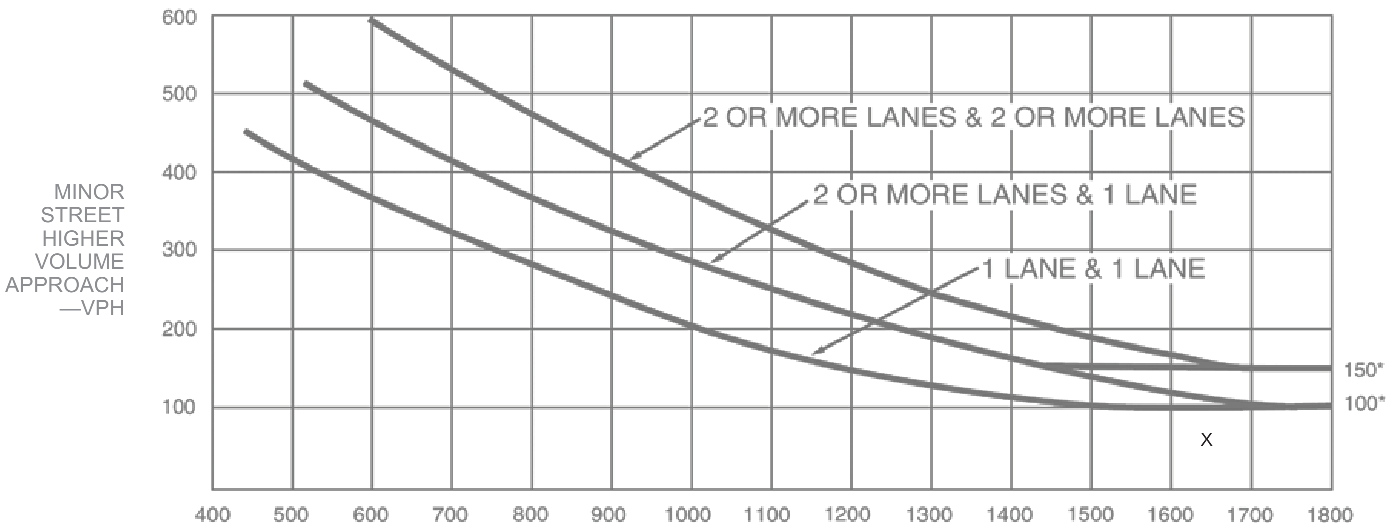
(If Yes, fill in percentage) 50 %

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☒

Peak Hour WARRANT 3 *(continued)*

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

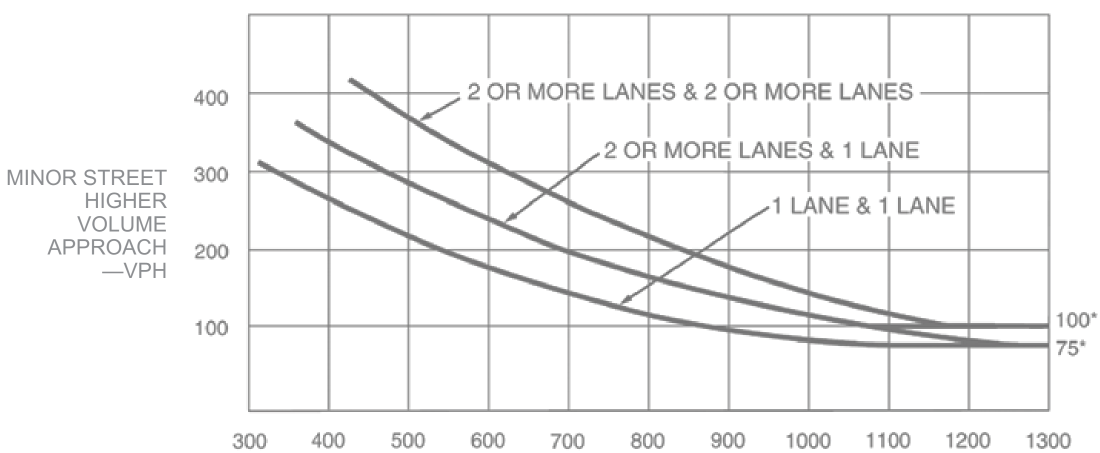
URBAN
Figure 4C-3. Warrant 3, Peak Hour



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A		☐
SATISFIED	YES	☐
	NO	☒

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	9AM	10AM	4PM	5PM
Vehicles per hour on major street for 4 hours	1852	1433	1409	1599
Pedestrians crossing major street per hour for highest 4 hours	23	13	25	13

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒
15% WALKING RATE	____ fps	

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	5PM
Vehicles per hour on major street for 1 hour	1409
Pedestrians crossing major street per hour for highest 1 hour	25

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒
15% WALKING RATE	____ fps	

PART 2

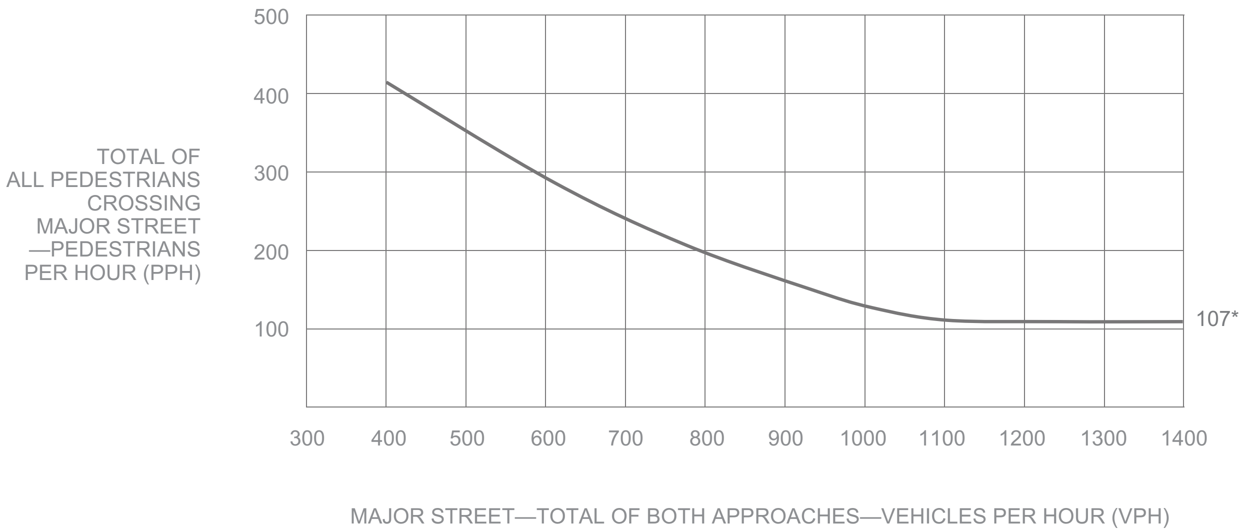
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

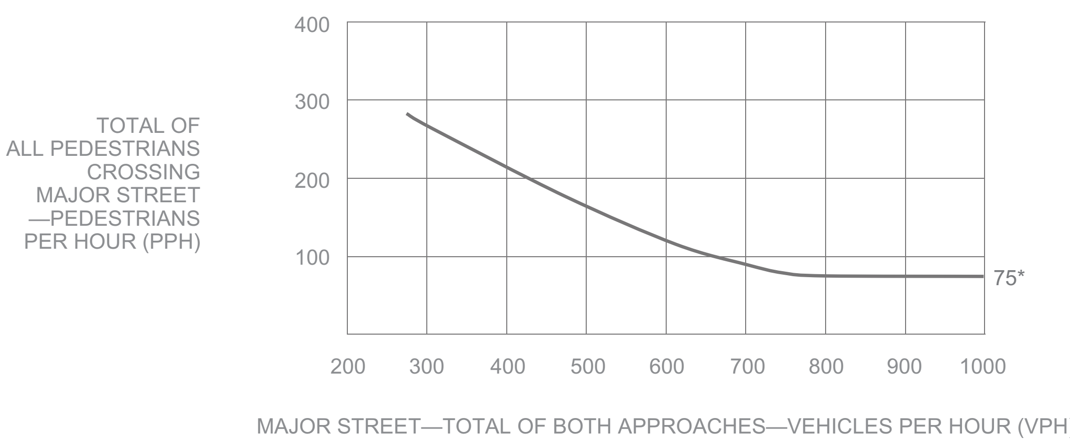
✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

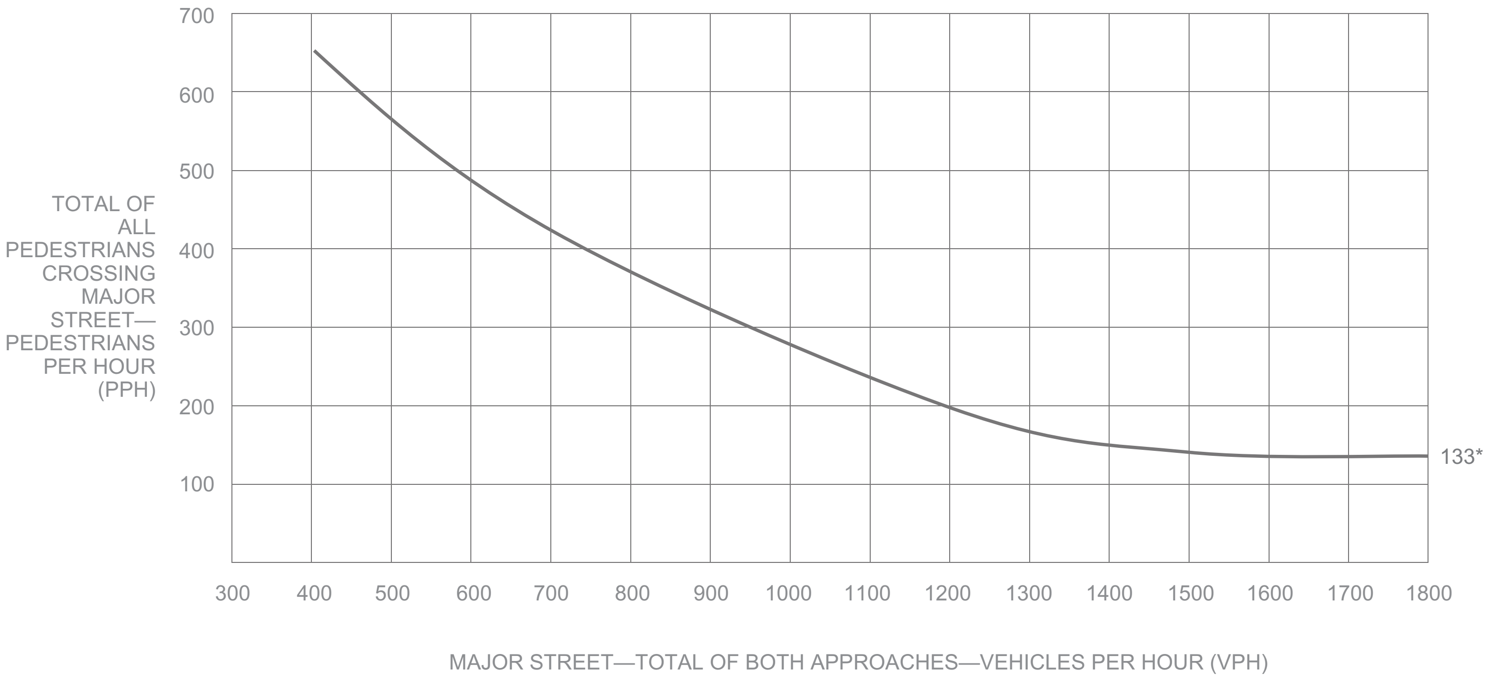


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

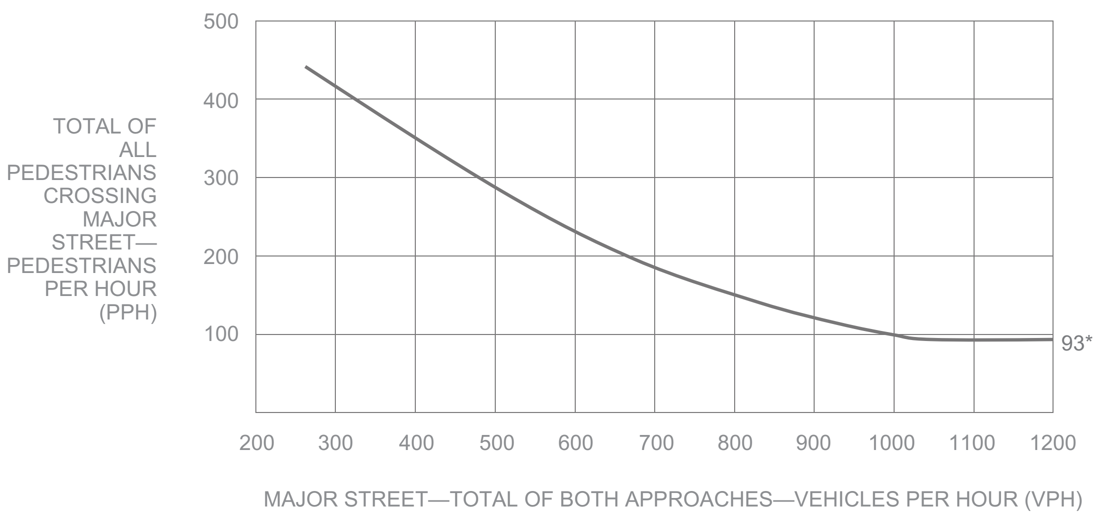
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *1600* ft, S *345* ft, E *N/A* ft, W *650* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	**CONDITIONS**	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULLFILLED YES	FULLFILLED NO
1000 Veh / Hr	During Typical Weekday Peak Hour __________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B		YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒
SATISFIED YES ☐
NO ☐

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Table 4C-4. Warrant 9,
Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing
(One Approach Lane at the Track Crossing)

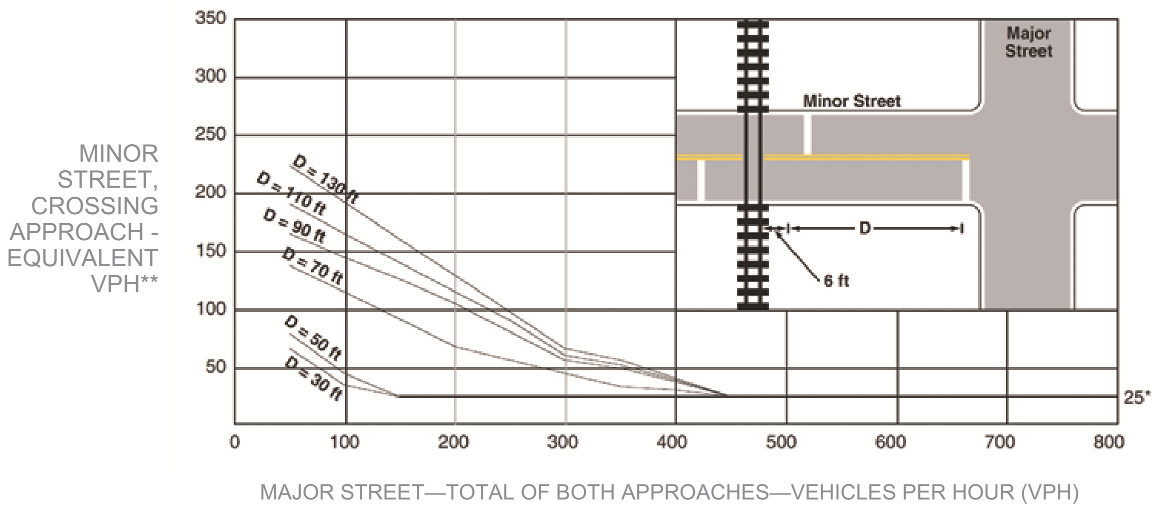
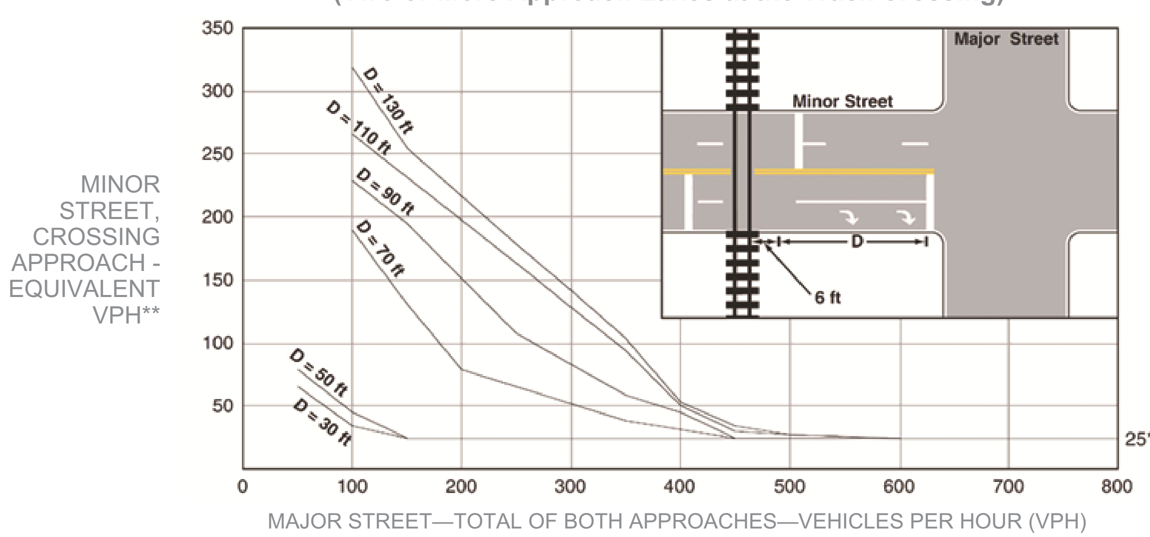


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing
(Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume
** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

	N/A	☐
SATISFIED	YES	☐
	NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied

SATISFIED	YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied)*

	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied)*

	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A

	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER

MAJOR ST: WILTON PL

MINOR ST: LA MIRANDA AV

Critical Approach Speed: MPH ___ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph………….………… ☐
or
In built up area of isolated community of < 10,000 population…………………… ☐
→ RURAL (R)

☒ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐

SATISFIED YES ☐

NO ☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R		8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)		1395	1962	1525	1285	1501	1699	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)		24	34	21	58	86	79	

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R		8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)		1395	1962	1525	1285	1501	1699	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)		24	34	21	58	86	79	

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☐

Eight-Hour Vehicular Volume WARRANT 1 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Projected Volumes

N/A ☒

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1..........................	1..........................	8,000	5,600	2,400	1,680
2 or More................	1..........................	9,600	6,720	2,400	1,680
2 or More................	2 or More................	9,600	6,720	3,200	2,240
1..........................	2 or More................	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1..........................	1..........................	12,000	8,400	1,200	850
2 or More................	1..........................	14,400	10,080	1,200	850
2 or More................	2 or More................	14,400	10,080	1,600	1,120
1..........................	2 or More................	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more...... ____ A ____ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* ***Note:*** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

APPROACH LANES	One	2 or More	Hours: 9AM	4PM	5PM	6PM
Both Approaches - Major Street			1962	1285	1501	1699
Higher Approach - Minor Street			34	58	86	79

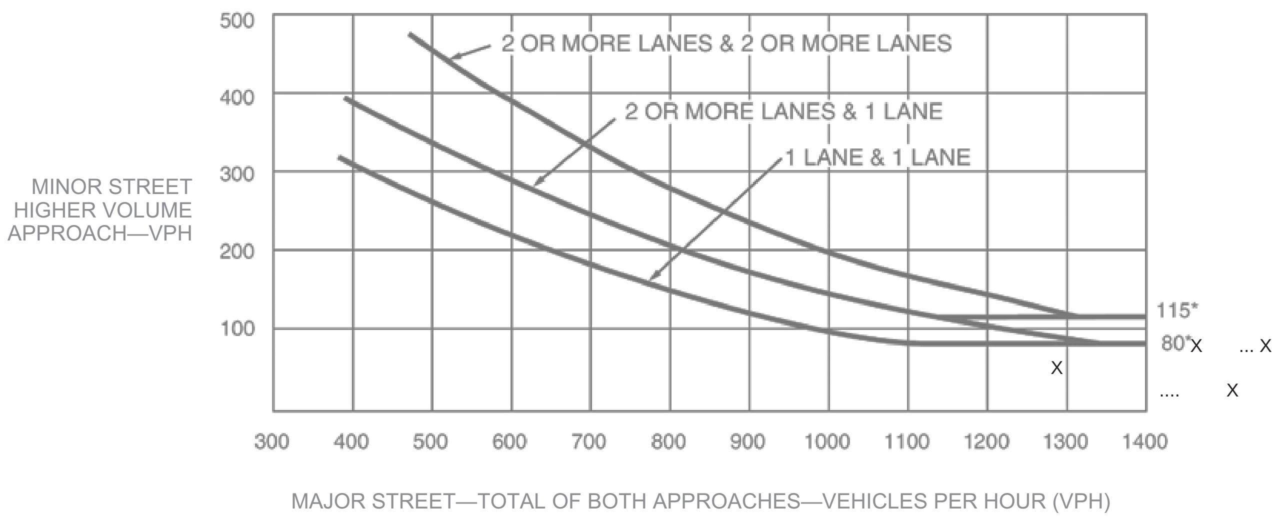
	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage) 50 %		

	YES	NO
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 *(continued)*

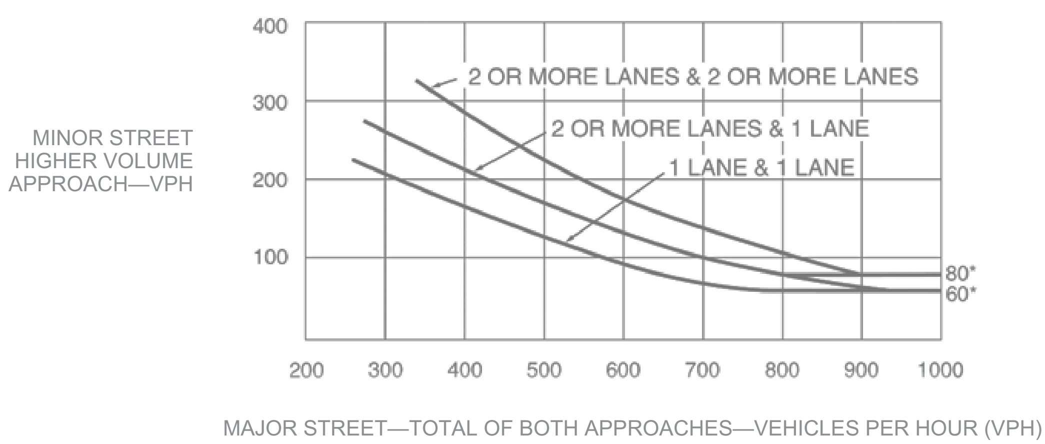
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour WARRANT 3

N/A	☒
SATISFIED YES	☐
NO	☐

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	YES ☐	NO ☐

Name ____________________

PART A

SATISFIED	YES	NO
	☐	☒

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	☐	☐	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED	YES	NO
	☐	☐

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street			
Higher Approach - Minor Street			

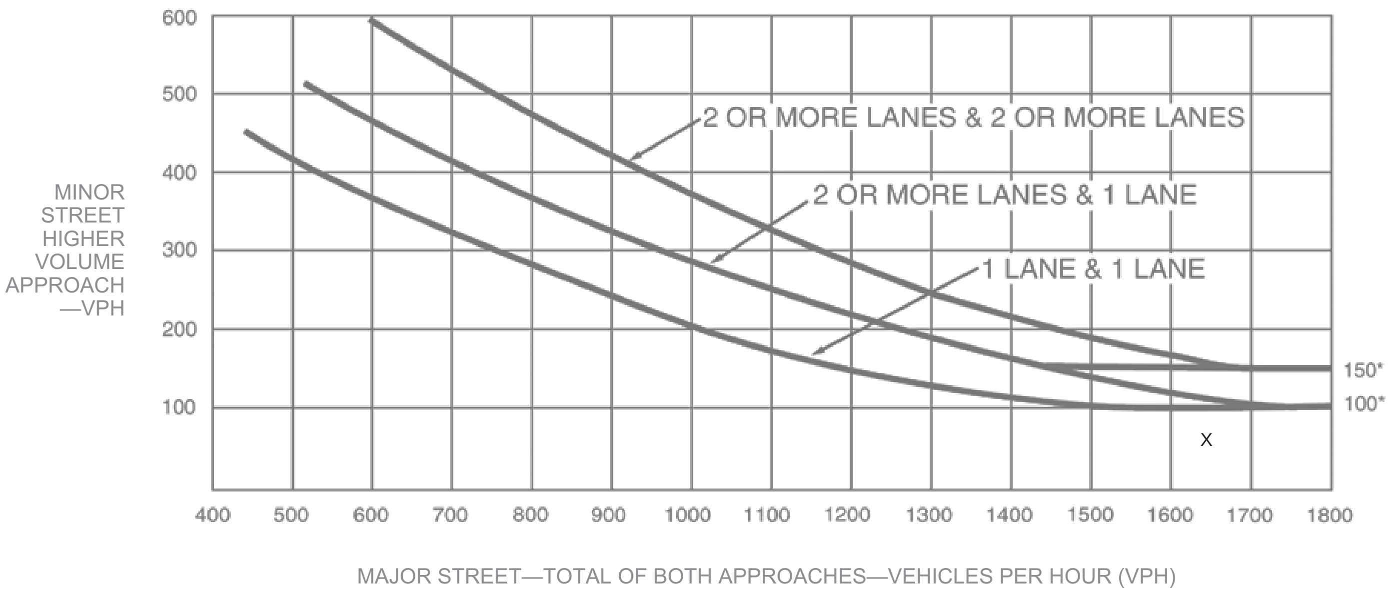
	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☐	☐
(If Yes, fill in percentage)	________%	

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) <u>**OR**</u>, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☐

Peak Hour WARRANT 3 *(continued)*

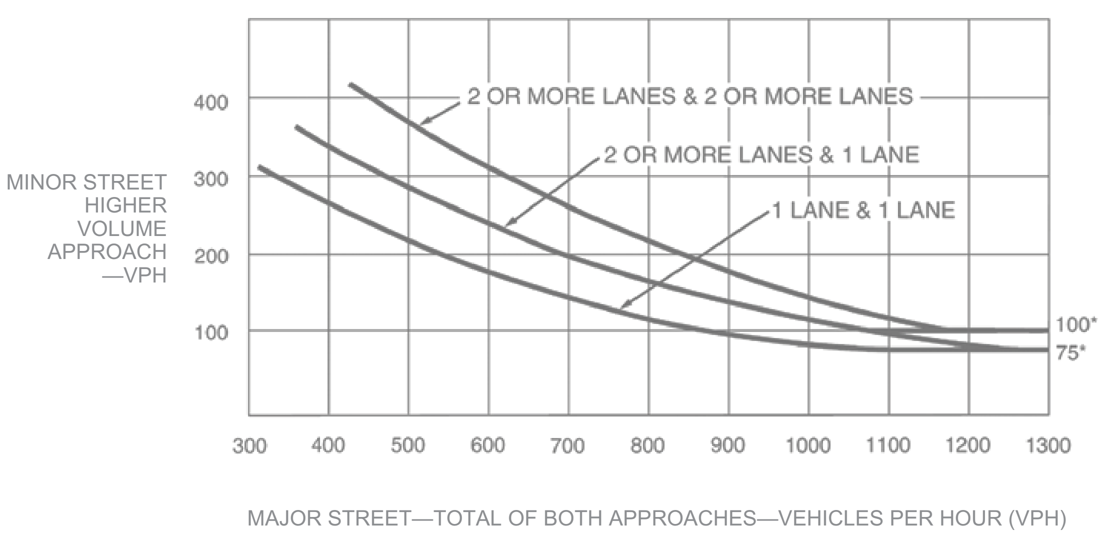
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-3. Warrant 3, Peak Hour



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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

	SATISFIED
N/A	☐
YES	☐
NO	☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	9AM	10AM	4PM	5PM
Vehicles per hour on major street for 4 hours	1962	1525	1501	1699
Pedestrians crossing major street per hour for highest 4 hours	18	8	20	8

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	4PM
Vehicles per hour on major street for 1 hour	1699
Pedestrians crossing major street per hour for highest 1 hour	20

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

PART 2

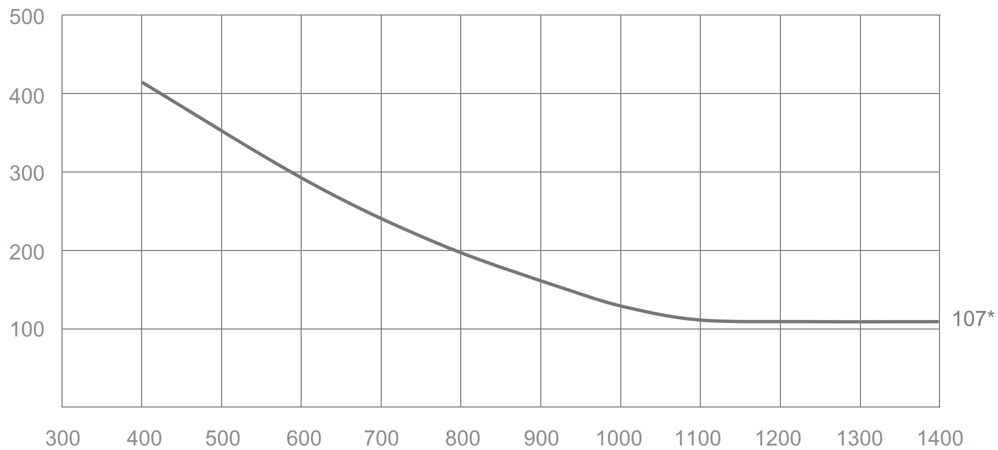
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

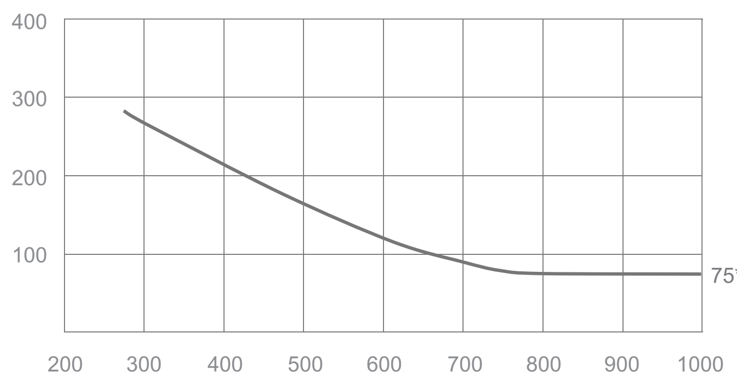
☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

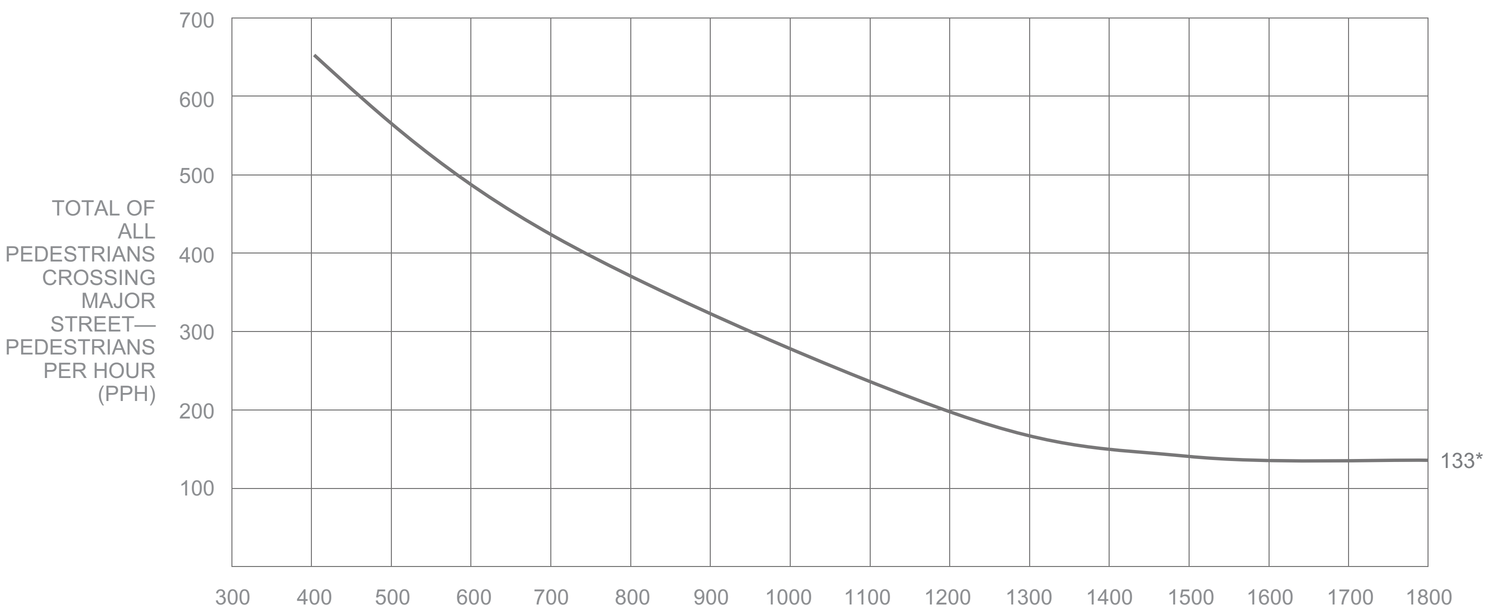


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

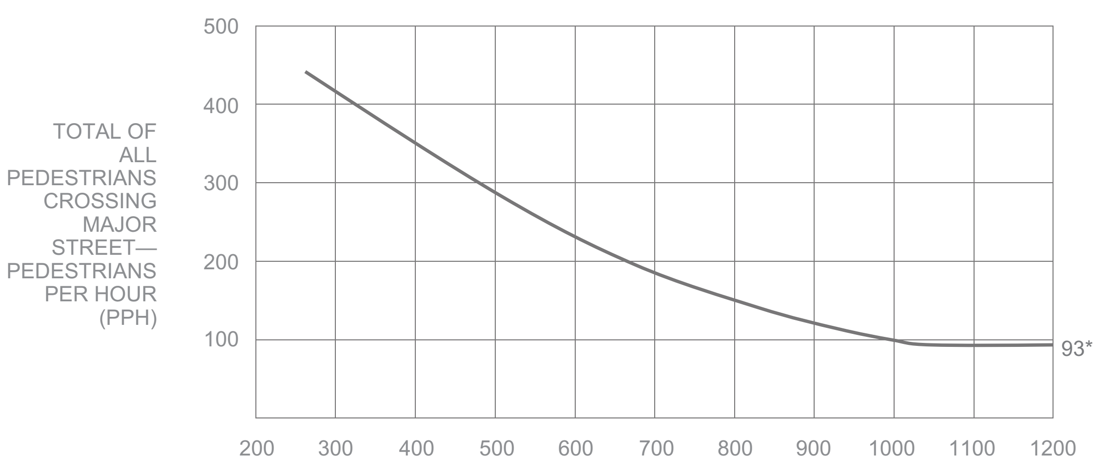
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *1600* ft, S *345* ft, E *N/A* ft, W *650* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A	☒
SATISFIED YES	☐
NO	☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	**CONDITIONS**	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A	☐
SATISFIED YES	☐
NO	☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	**ENTERING VOLUMES - ALL APPROACHES**	✓	**FULLFILLED** YES	NO
1000 Veh / Hr	During Typical Weekday Peak Hour __________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ______ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	**MAJOR ROUTE A**	**MAJOR ROUTE B**		YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒

SATISFIED YES ☐ NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

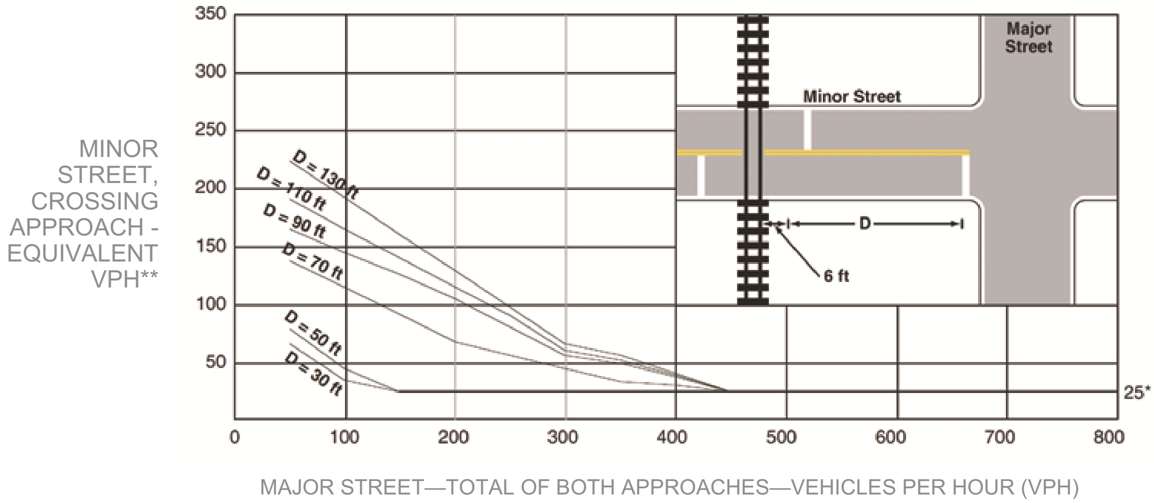
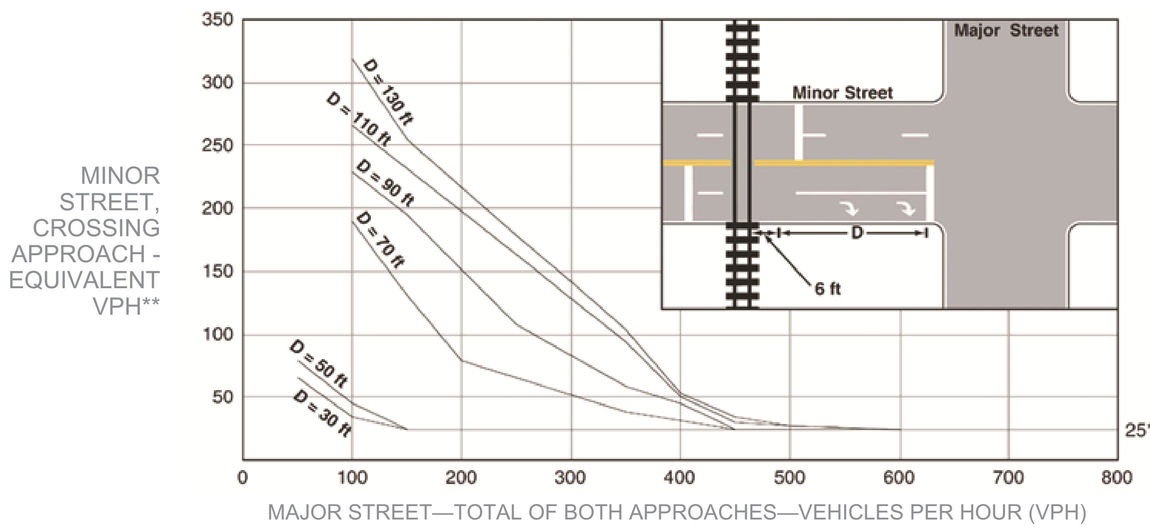


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A ☐
SATISFIED YES ☐
NO ☒

✱ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✱

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied

SATISFIED	YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied)*

	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied)*

	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A

	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ____________

MAJOR ST: WILTON PL

MINOR ST: LA MIRANDA AV

Critical Approach Speed: MPH ____ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph............................ ☐
or
In built up area of isolated community of < 10,000 population.......................... ☐
} RURAL (R) ☒ URBAN (U)

Eight-Hour Vehicular Volume

WARRANT 1

N/A ☐

SATISFIED YES ☐

NO ☒

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume — WARRANT 1 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

Condition A
Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More			8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)		1423	1990	1553	1312	1528	1726	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)		46	49	46	64	92	84	

Condition B
Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More			8AM	9AM	10AM	4PM	5PM	6PM	
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)		1423	1990	1553	1312	1528	1726	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)		46	49	46	64	92	84	

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☐

Eight-Hour Vehicular Volume WARRANT 1 (continued)

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

Projected Volumes

N/A ☒

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1..........................	1..........................	8,000	5,600	2,400	1,680
2 or More................	1..........................	9,600	6,720	2,400	1,680
2 or More................	2 or More................	9,600	6,720	3,200	2,240
1..........................	2 or More................	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1..........................	1..........................	12,000	8,400	1,200	850
2 or More................	1..........................	14,400	10,080	1,200	850
2 or More................	2 or More................	14,400	10,080	1,600	1,120
1..........................	2 or More................	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more...... ____ A ____ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* ***Note:*** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

	N/A	☐
SATISFIED	YES	☐
	NO	☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

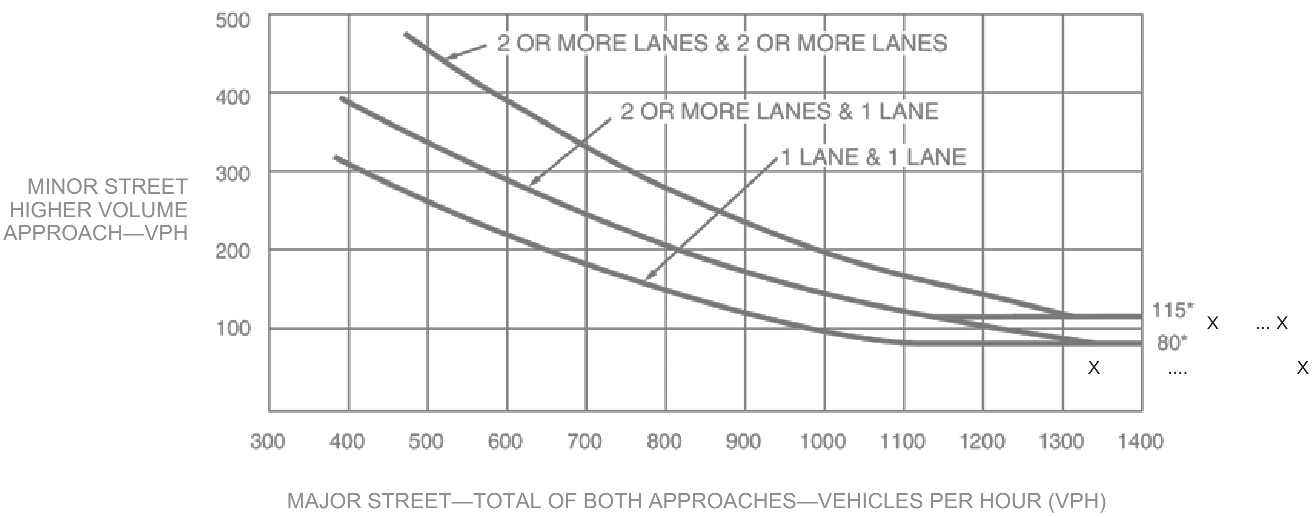
APPROACH LANES	One	2 or More	Hours: 9AM	4PM	5PM	6PM
Both Approaches - Major Street	✓		1990	1312	1528	1726
Higher Approach - Minor Street	✓		49	64	92	84

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage)	50 %	
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 *(continued)*

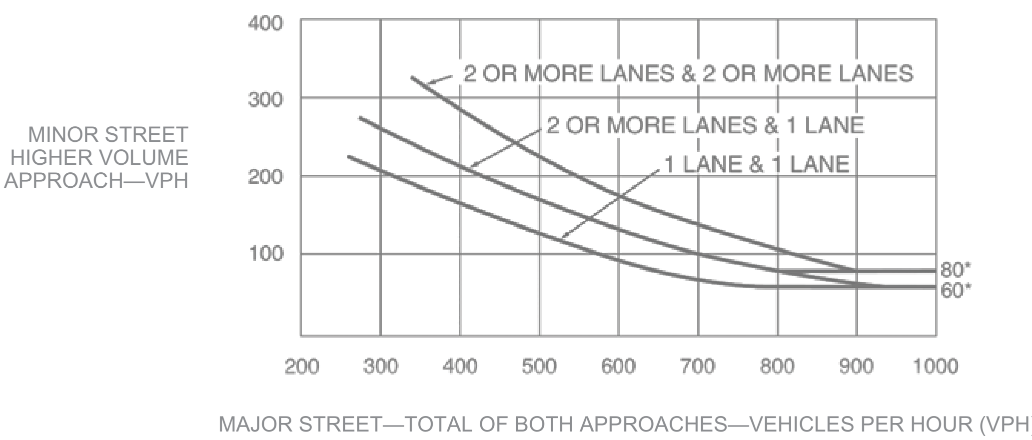
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour — WARRANT 3

	SATISFIED
N/A	☐
YES	☐
NO	☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	STUDIO & CREATIV OFFICE	YES ☒	NO ☐
	Name		

PART A

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

SATISFIED: YES ☐ NO ☒

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	☐	☐	☒
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED: YES ☐ NO ☐

APPROACH LANES	One	2 or More	Hour: 5PM
Both Approaches - Major Street	✓		1528
Higher Approach - Minor Street	✓		92

RIGHT TURN REDUCTION APPLICATION *MINOR STREET*: YES ☒ NO ☐

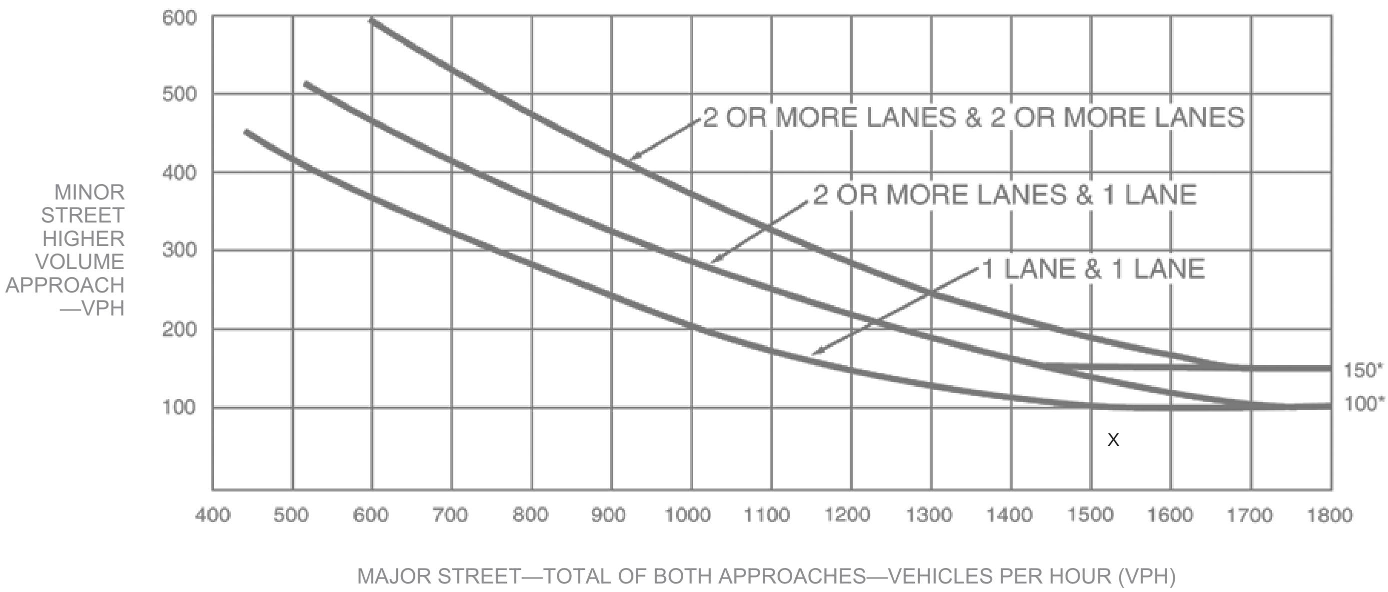
(If Yes, fill in percentage) 50 %

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) <u>OR</u>, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☐

Peak Hour WARRANT 3 (continued)

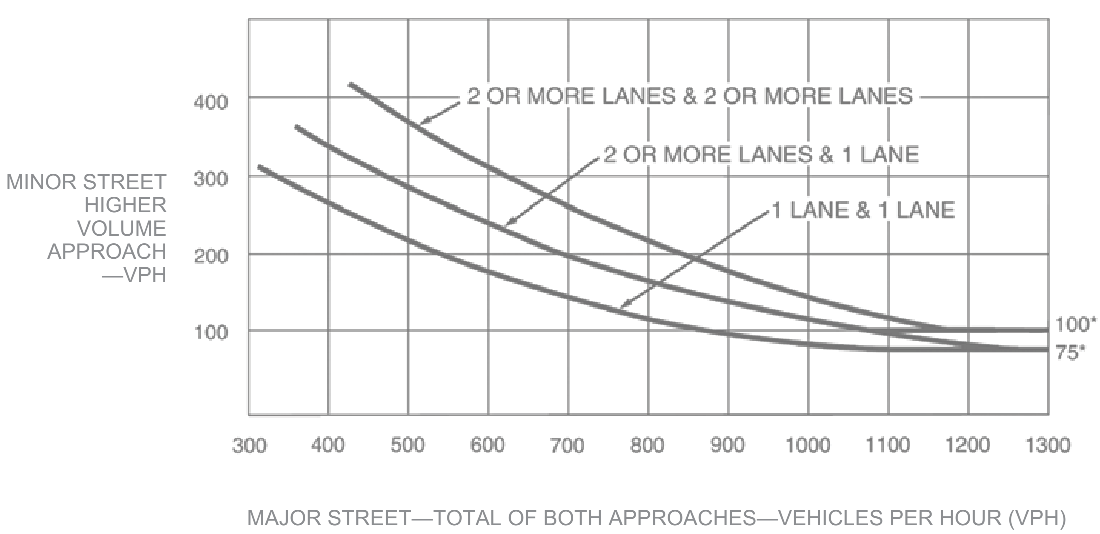
⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

URBAN
Figure 4C-3. Warrant 3, Peak Hour



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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A		☐
SATISFIED	YES	☐
	NO	☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Parts 1 and 2 shall be satisfied.

b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.

c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.

d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.

e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.

g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.

h. Bicycles may be counted as pedestrians.

i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

Hours	9AM	10AM	4PM	5PM
Vehicles per hour on major street for 4 hours	1990	1553	1312	1528
Pedestrians crossing major street per hour for highest 4 hours	24	14	26	16

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒
15% WALKING RATE		fps

B. ONE HOUR PEDESTRIAN VOLUMES

Hour	4PM
Vehicles per hour on major street for 1 hour	1699
Pedestrians crossing major street per hour for highest 1 hour	20

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒
15% WALKING RATE		fps

PART 2

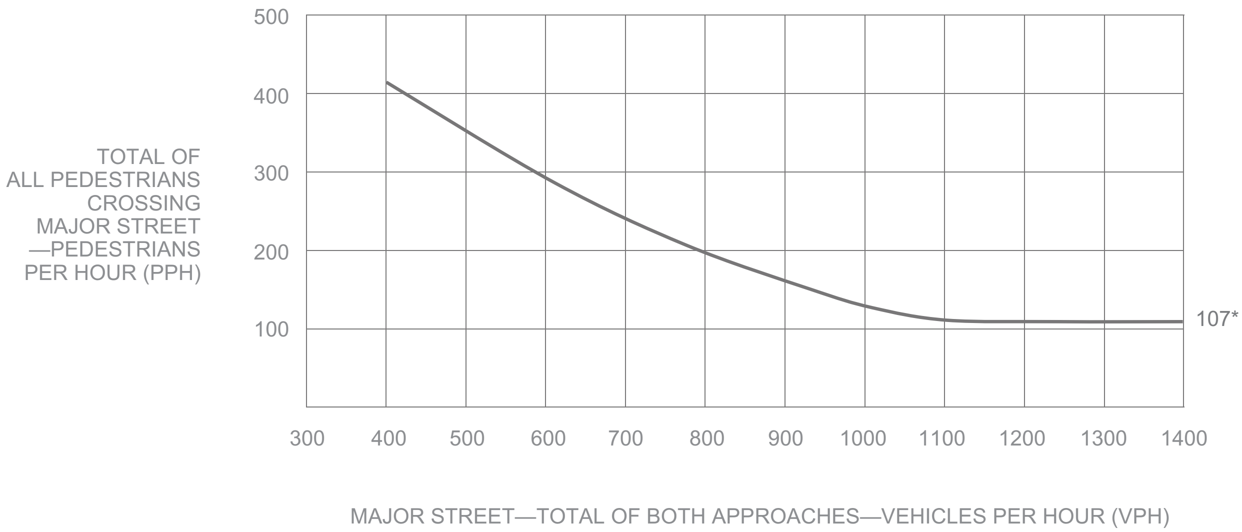
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

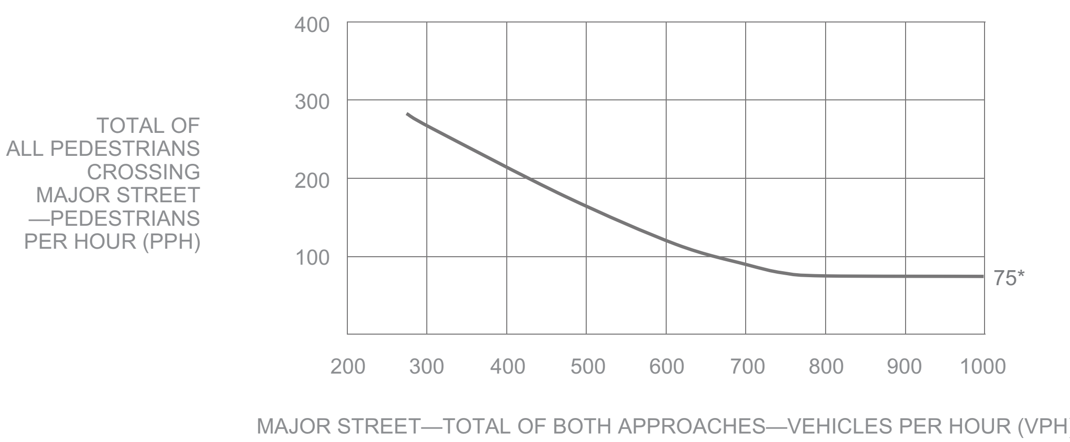
☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

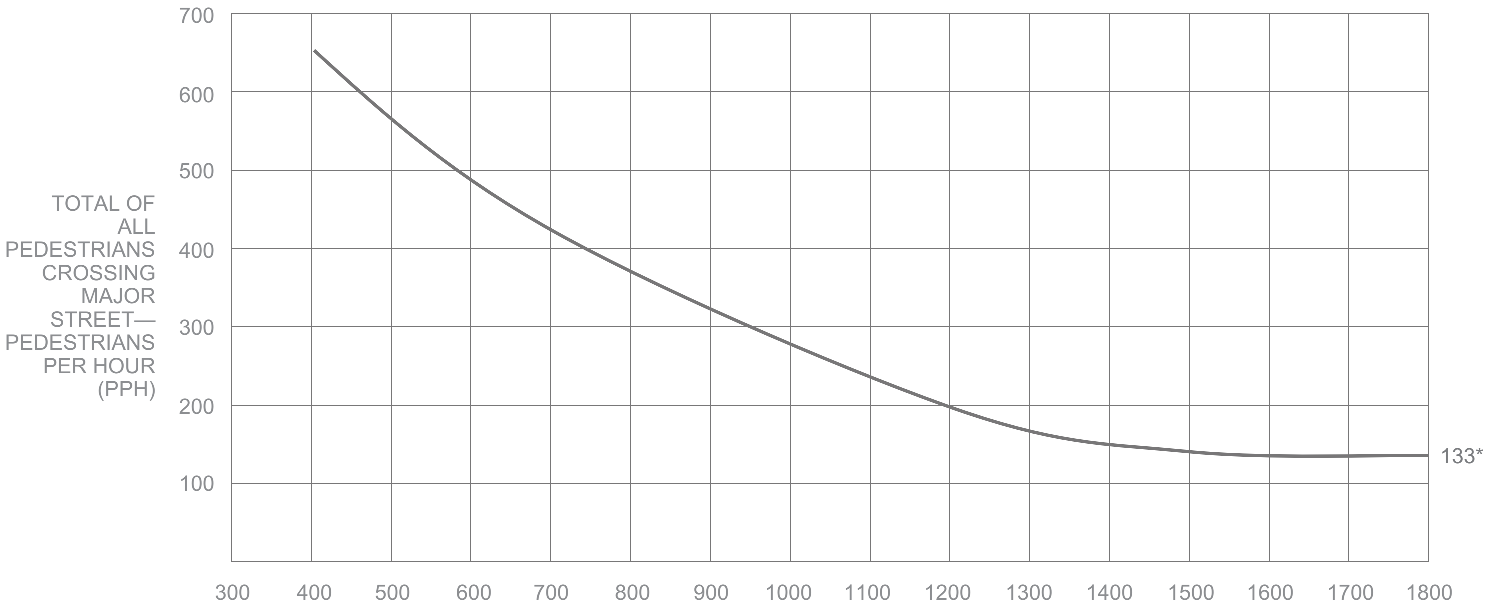


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

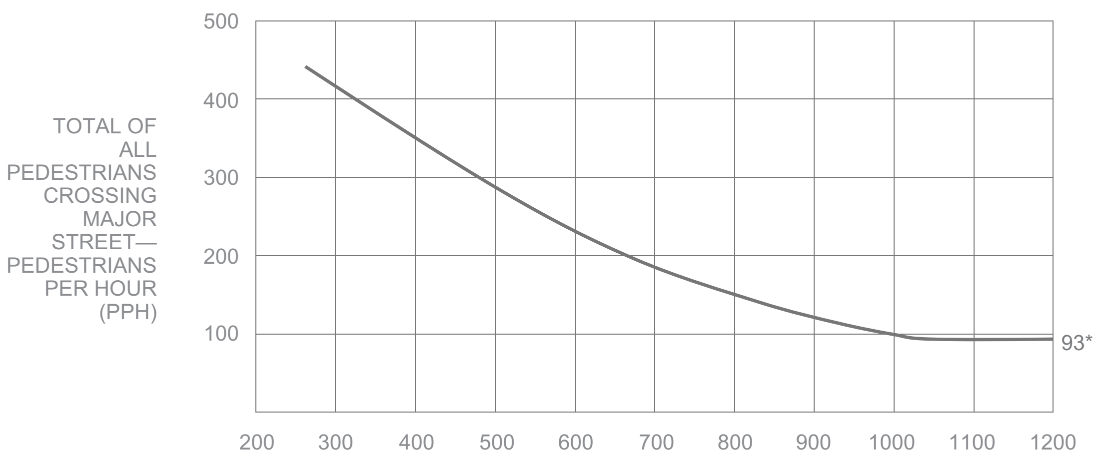
SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *1600* ft, S *345* ft, E *N/A* ft, W *650* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	Indicate Date(s):			
REQUIREMENTS	CONDITIONS	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULLFILLED YES	FULLFILLED NO
1000 Veh / Hr	During Typical Weekday Peak Hour ________________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B		YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH --- **OR, There are two or more minor street approach lanes at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ______________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

**Table 4C-4. Warrant 9,
Adjustment Factor for Percentage of Tractor-Trailer Trucks**

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

**Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing
(One Approach Lane at the Track Crossing)**

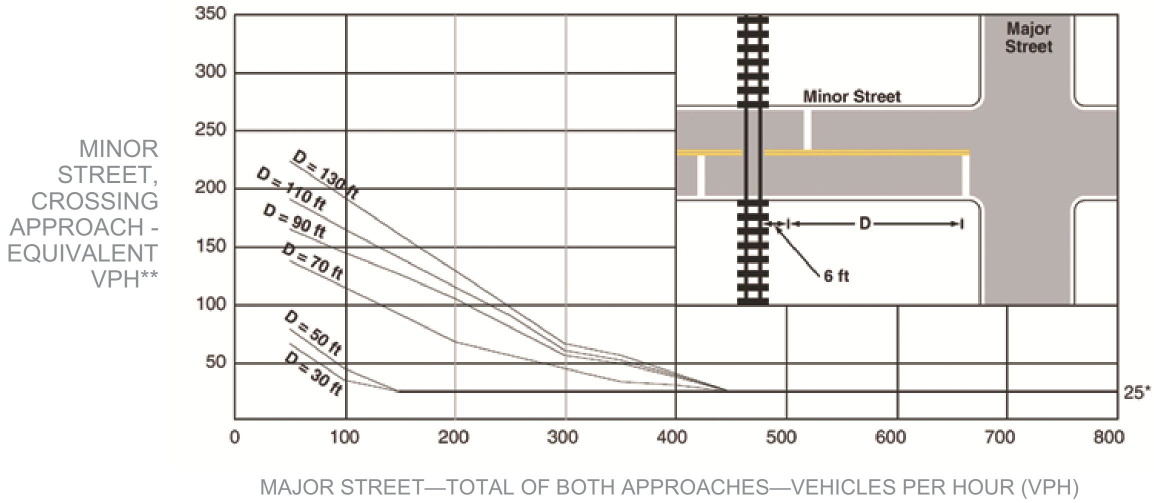
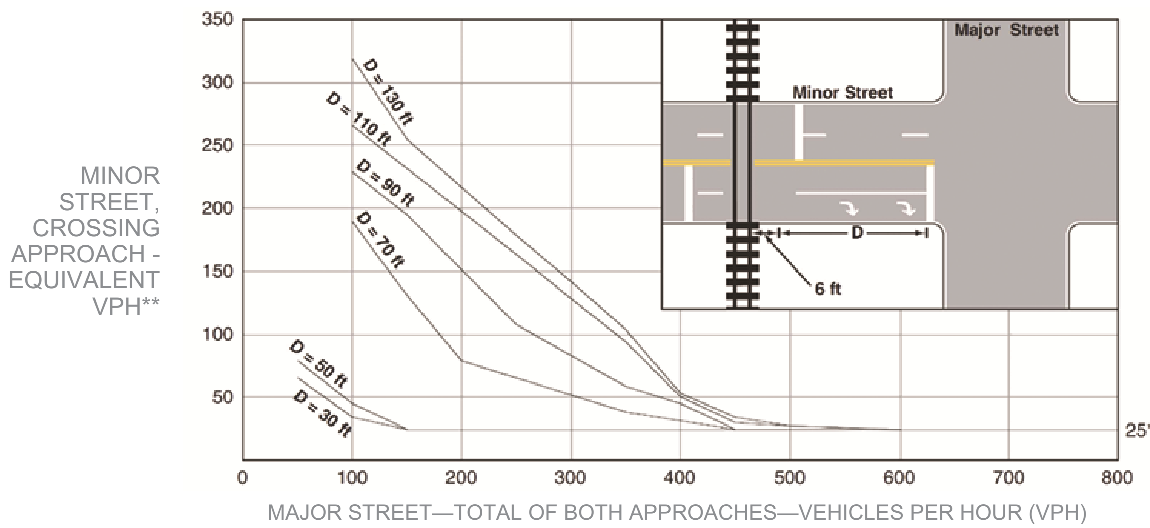


**Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing
(Two or More Approach Lanes at the Track Crossing)**



* 25 vph applies as the lower threshold volume
** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A	☐
SATISFIED YES	☐
NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied	SATISFIED YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied*)	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied*)	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒

SATISFIED YES ☐

NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A

	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

EXISTING

LADOT

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ________

MAJOR ST: SB 101 FREEWAY OFF RAMP

MINOR ST: LEXINGTON AVENUE

Critical Approach Speed: MPH ____ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph……………..………… ☐
or
In built up area of isolated community of < 10,000 population……….…………… ☐

RURAL (R) ☒ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐

SATISFIED YES ☐

NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		*7AM*	*8AM*	*9AM*	*10AM*	*4PM*	*5PM*	*6PM*	*7PM*
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)	*450*	*737*	*890*	*836*	*842*	*803*	*808*	*841*
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	*9*	*88*	*79*	*68*	*70*	*107*	*143*	*59*

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		*7AM*	*8AM*	*9AM*	*10AM*	*4PM*	*5PM*	*6PM*	*7PM*
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)	*450*	*737*	*890*	*836*	*842*	*803*	*808*	*841*
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	*9*	*88*	*79*	*68*	*70*	*107*	*143*	*59*

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☐

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

Projected Volumes

N/A ☒

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1……………………….	1……………………….	8,000	5,600	2,400	1,680
2 or More…………….	1……………………….	9,600	6,720	2,400	1,680
2 or More…………….	2 or More…………….	9,600	6,720	3,200	2,240
1……………………….	2 or More…………….	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1……………………….	1……………………….	12,000	8,400	1,200	850
2 or More…………….	1……………………….	14,400	10,080	1,200	850
2 or More…………….	2 or More…………….	14,400	10,080	1,600	1,120
1……………………….	2 or More…………….	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more…… _____ A _____ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

** **Note:** To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

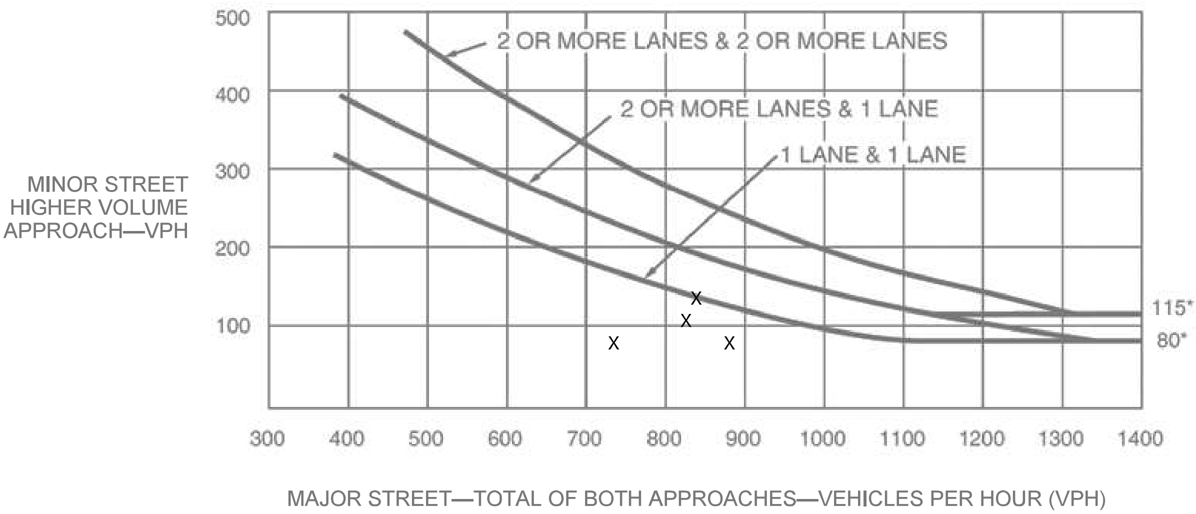
APPROACH LANES	One	2 or More	Hours: 8AM	9AM	5PM	6PM
Both Approaches - Major Street			737	890	803	808
Higher Approach - Minor Street			88	79	107	143

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET* (If Yes, fill in percentage) 50 %	☒	☐
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 (continued)

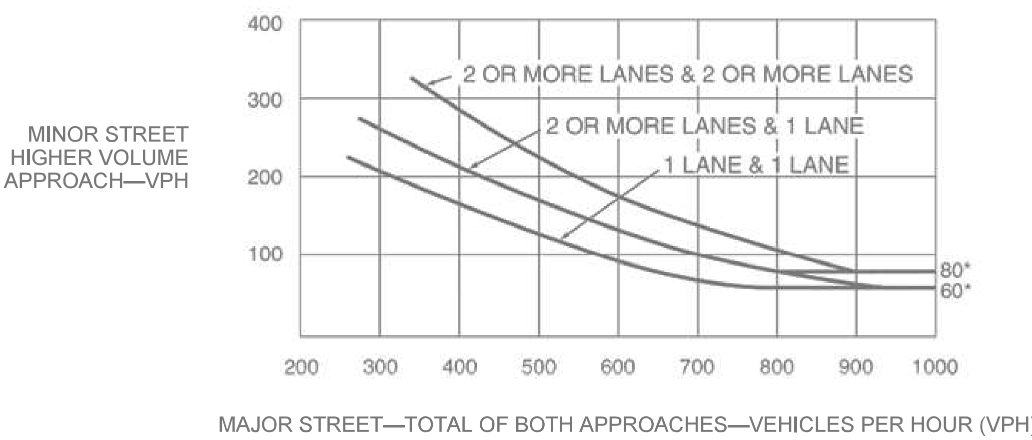
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak Hour WARRANT 3

N/A ☒
SATISFIED YES ☐
NO ☐

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

a. Part A or Part B must be satisfied.
b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.
c. In applying each condition, the major street and minor street volumes shall be for the same hours.
d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.
e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.
g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b. STUDIO & CREATIV OFFICE — YES ☐ NO ☐

Name ______

PART A

SATISFIED YES ☐ NO ☐

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	☐	☐	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED YES ☐ NO ☐

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street			
Higher Approach - Minor Street			

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* YES ☐ NO ☐

(If Yes, fill in percentage) ______%

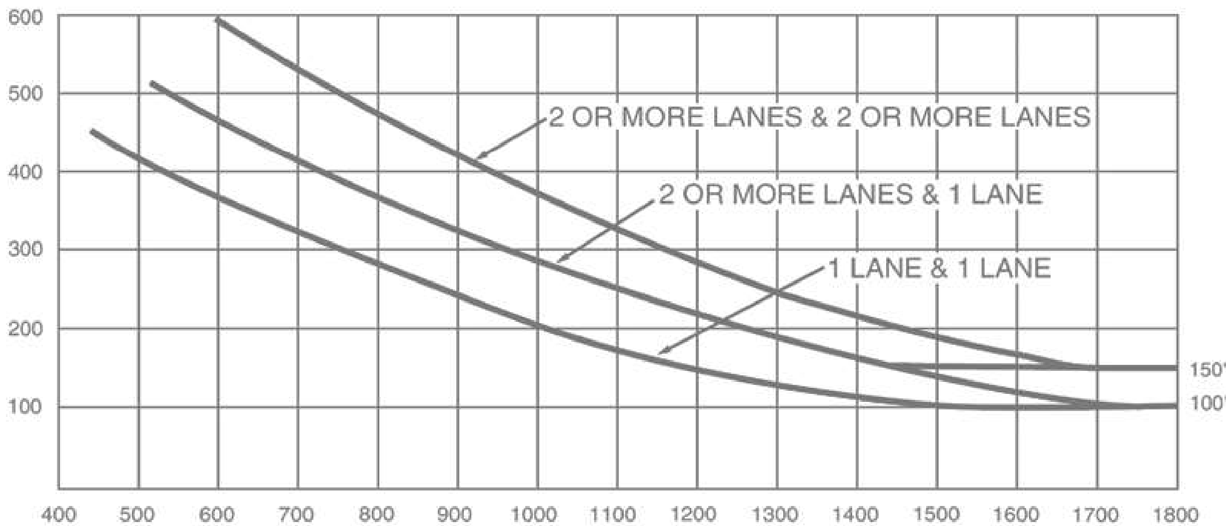
	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) <u>OR</u>, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☐

Peak Hour WARRANT 3 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-3. Warrant 3, Peak Hour

MINOR STREET HIGHER VOLUME APPROACH —VPH

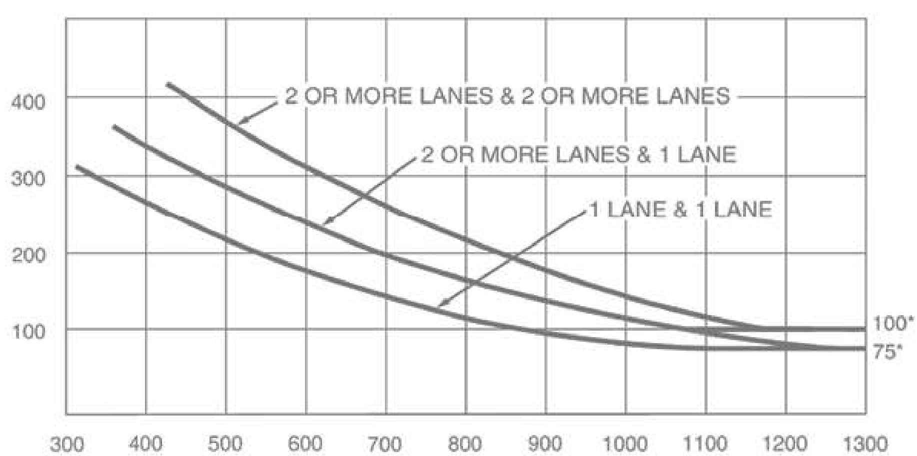


MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)

MINOR STREET HIGHER VOLUME APPROACH —VPH



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A	☐
SATISFIED YES	☐
NO	☒

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours: 8AM	4PM	5PM	6PM
Vehicles per hour on major street for 4 hours	737	842	803	808
Pedestrians crossing major street per hour for highest 4 hours	24	14	26	16

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ *fps*

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour: 5PM
Vehicles per hour on major street for 1 hour	803
Pedestrians crossing major street per hour for highest 1 hour	26

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ *fps*

PART 2

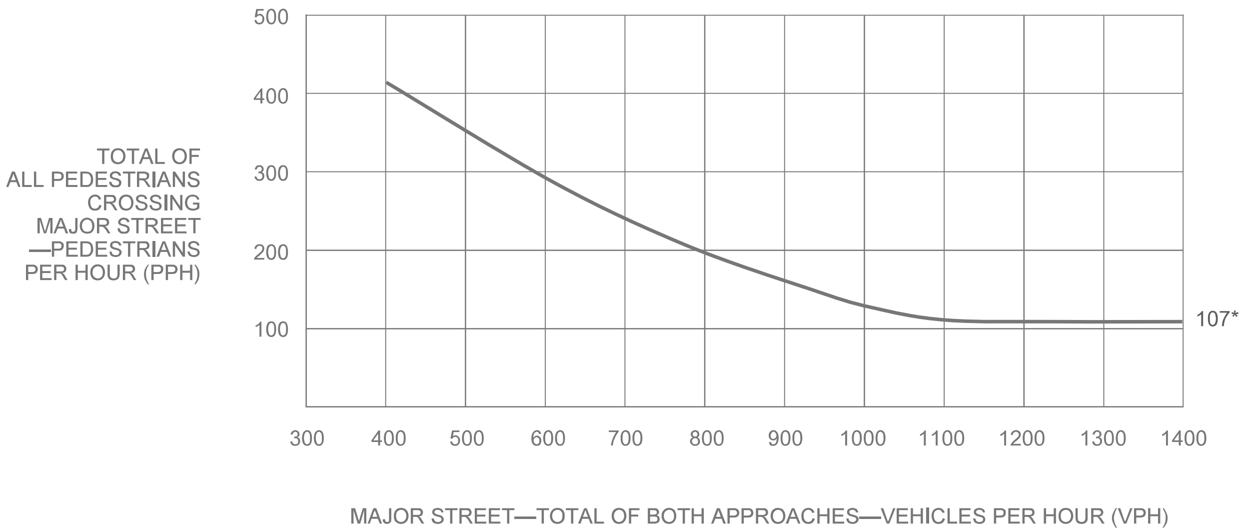
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 (continued)

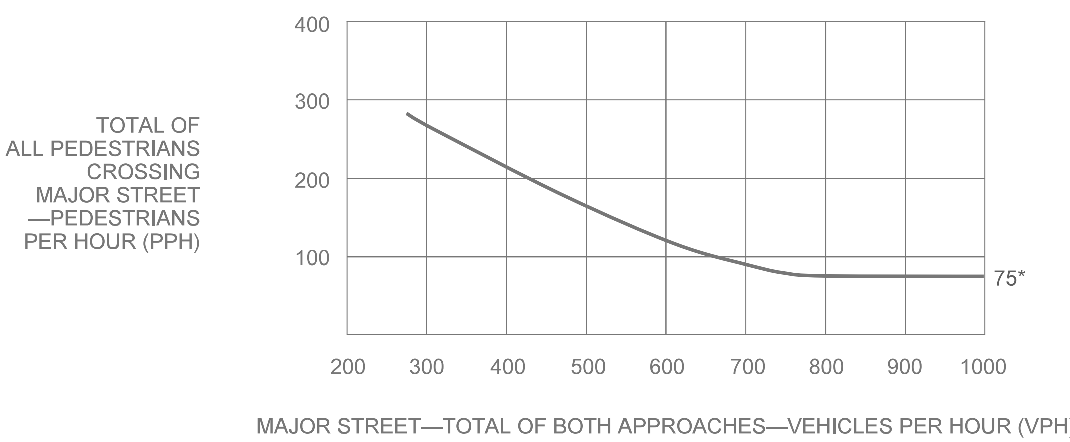
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

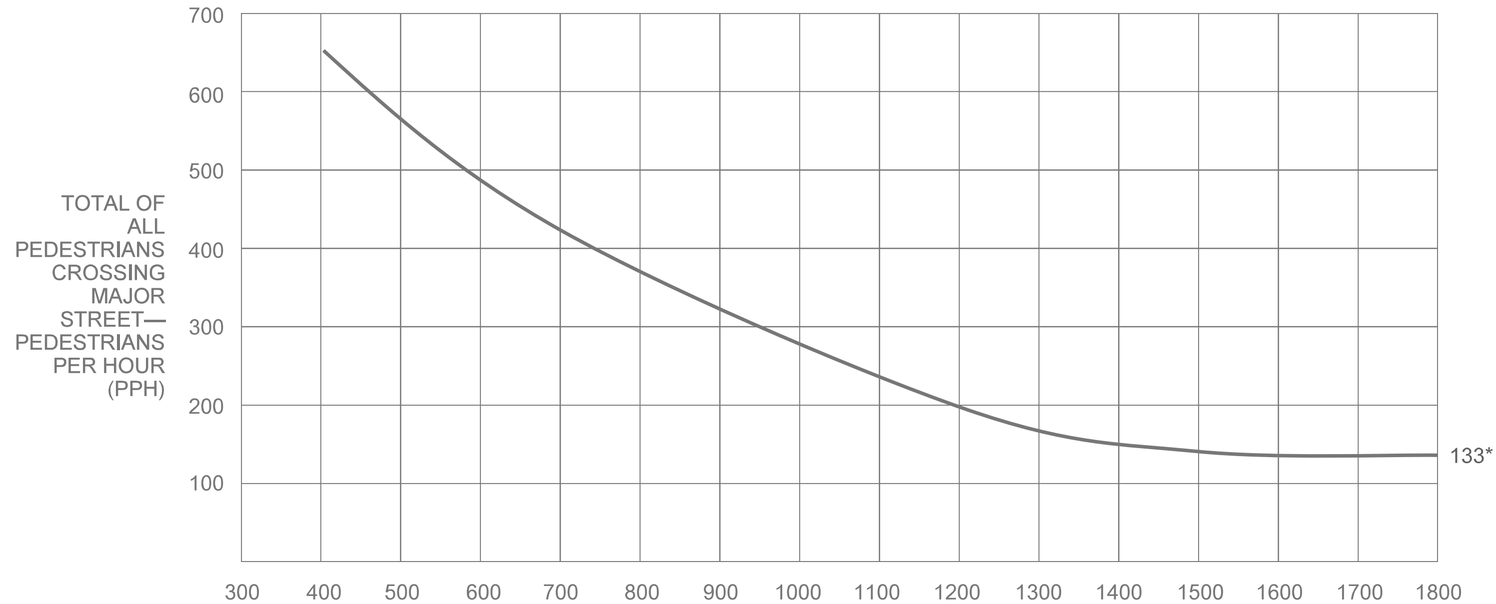


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 (continued)

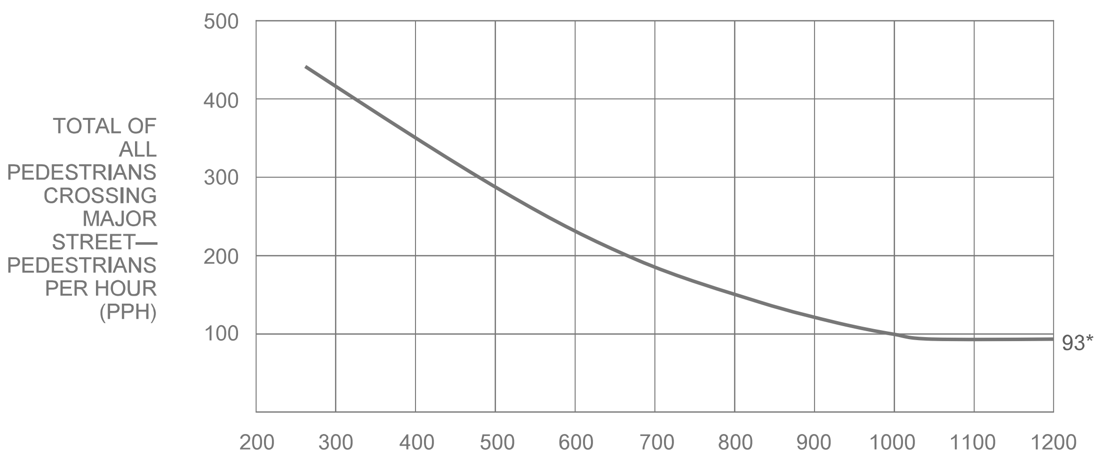
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *N/A* ft, S *N/A* ft, E *210* ft, W *1,000* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	CONDITIONS	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULLFILLED YES	FULLFILLED NO
1000 Veh / Hr	During Typical Weekday Peak Hour ________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B	✓	YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing — WARRANT 9

	SATISFIED	
N/A	☒	
YES	☐	
NO	☐	

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

Table 4C-4. Warrant 9,
Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing
(One Approach Lane at the Track Crossing)

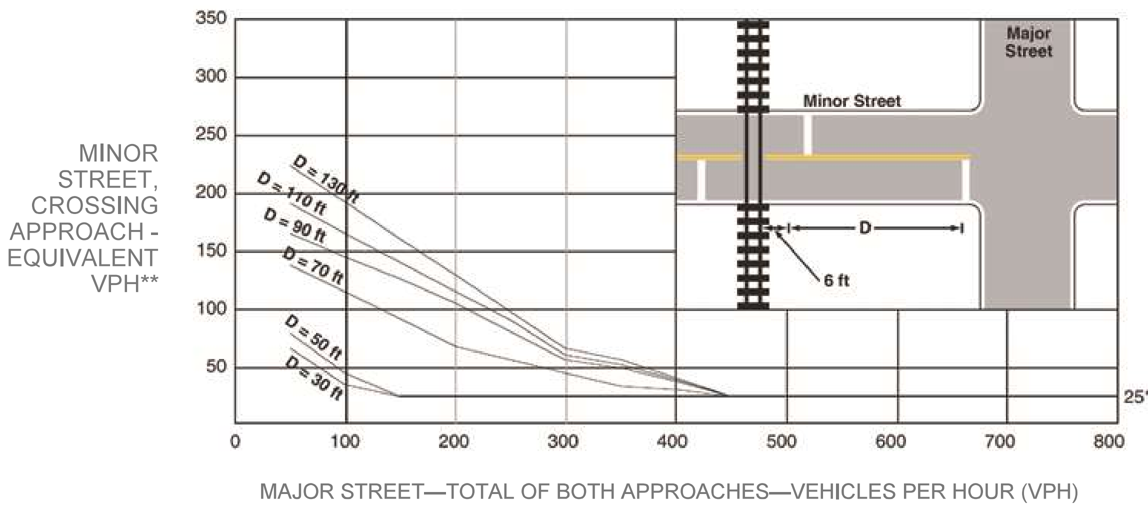
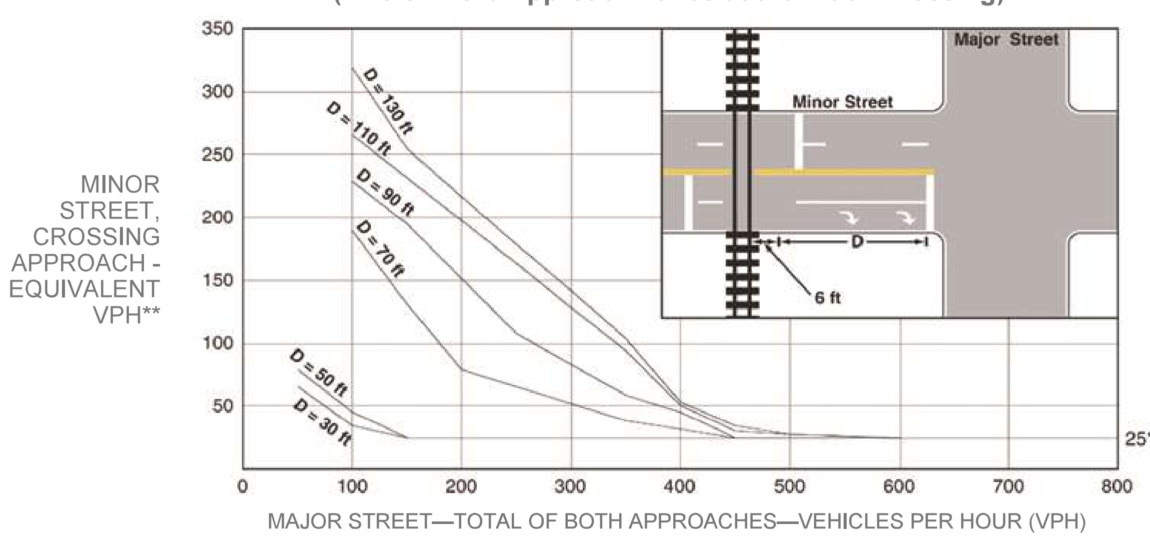


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing
(Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles WARRANT 10

N/A ☐
SATISFIED YES ☐
NO ☒

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied	SATISFIED YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied*)	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied*)	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data. Specify dates of correctable bicycle collisions:	☐	☒

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ________

MAJOR ST: SB 101 FREEWAY OFF RAMP

MINOR ST: LEXINGTON AVENUE

Critical Approach Speed: MPH ___ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph………………………☐
or
In built up area of isolated community of < 10,000 population………………………☐
} RURAL (R) ☐ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	❑	❑
80%	❑	❑

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ❑
(If Yes, fill in percentage) ❑ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)	475	762	915	861	848	809	814	847
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	58	137	128	117	152	189	151	82

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	❑	❑
80%	❑	❑

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ❑
(If Yes, fill in percentage) ❑ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)	475	762	915	861	848	809	814	847
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	58	137	128	117	152	189	151	82

COMBINATION OF A & B

SATISFIED	YES	NO
	❑	❑

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		❑	❑
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			❑	❑

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

Projected Volumes

N/A ☐

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1……………………….	1……………………….	8,000	5,600	2,400	1,680
2 or More…………….	1……………………….	9,600	6,720	2,400	1,680
2 or More…………….	2 or More…………….	9,600	6,720	3,200	2,240
1……………………….	2 or More…………….	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1……………………….	1……………………….	12,000	8,400	1,200	850
2 or More…………….	1……………………….	14,400	10,080	1,200	850
2 or More…………….	2 or More…………….	14,400	10,080	1,600	1,120
1……………………….	2 or More…………….	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more…… ______ A ______ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* ***Note:*** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

SATISFIED: N/A ☐ YES ☐ NO ☐

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

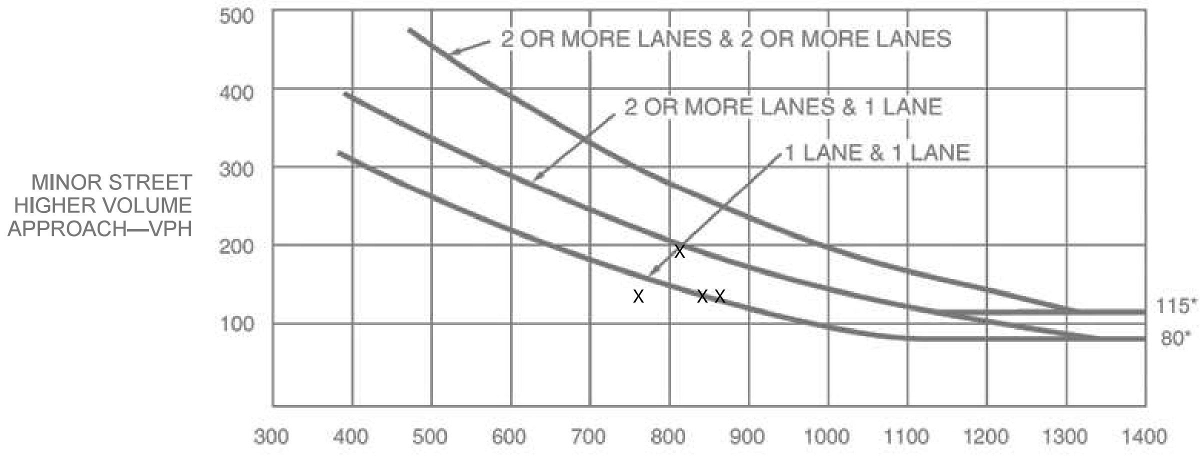
APPROACH LANES	One	2 or More	Hours: *8AM*	*4pM*	*5PM*	*6PM*
Both Approaches - Major Street			*762*	*848*	*809*	*814*
Higher Approach - Minor Street			*137*	*152*	*189*	*151*

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET* (If Yes, fill in percentage) *50* %	☐	☐
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☐

Four-Hour Vehicular Volume WARRANT 2 *(continued)*

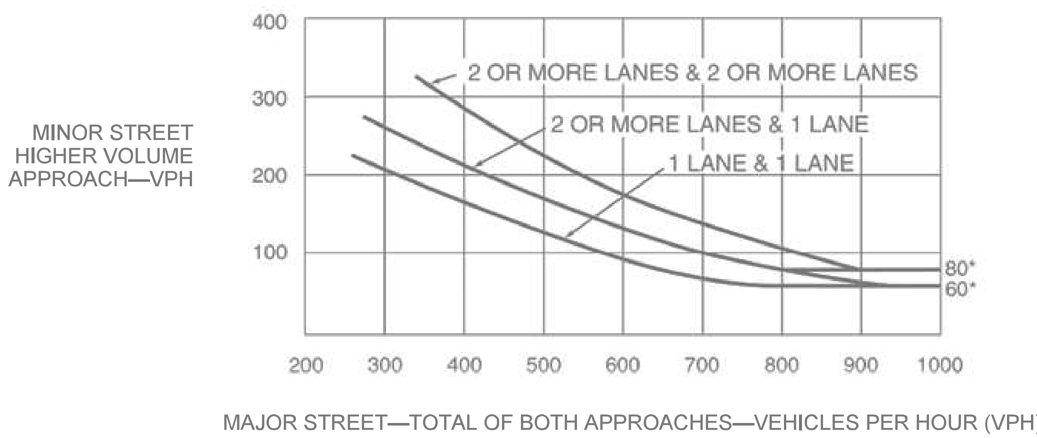
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour — WARRANT 3

	N/A	☐
SATISFIED	YES	☐
	NO	☒

⭑ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ⭑

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	STUDIO & CREATIV OFFICE	YES ☒	NO ☐
	Name		

PART A

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

SATISFIED: YES ☐ NO ☒

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	☐	☒	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	☒	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☒	☐	☐

PART B

SATISFIED: YES ☐ NO ☒

APPROACH LANES	One	2 or More	Hour: 5PM
Both Approaches - Major Street			809
Higher Approach - Minor Street			189

RIGHT TURN REDUCTION APPLICATION *MINOR STREET*: YES ☒ NO ☐

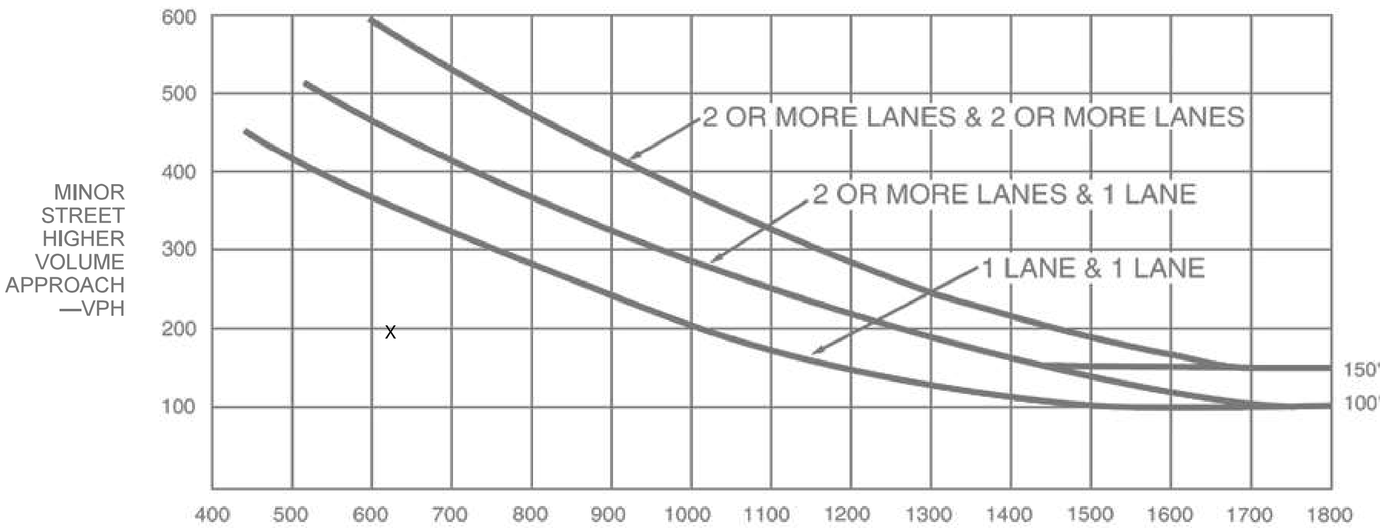
(If Yes, fill in percentage) 50 %

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☒

Peak Hour WARRANT 3 (continued)

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

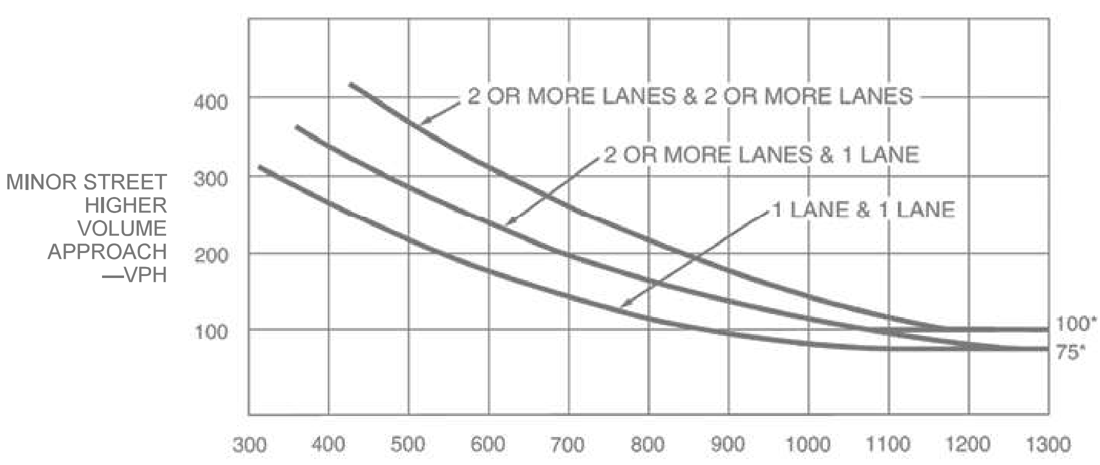
URBAN
Figure 4C-3. Warrant 3, Peak Hour



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)



MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A		☐
SATISFIED	YES	☐
	NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	8AM	4PM	5PM	6PM
Vehicles per hour on major street for 4 hours	762	848	809	814
Pedestrians crossing major street per hour for highest 4 hours	30	20	32	22

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ____ fps

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	5PM
Vehicles per hour on major street for 1 hour	809
Pedestrians crossing major street per hour for highest 1 hour	32

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ____ fps

PART 2

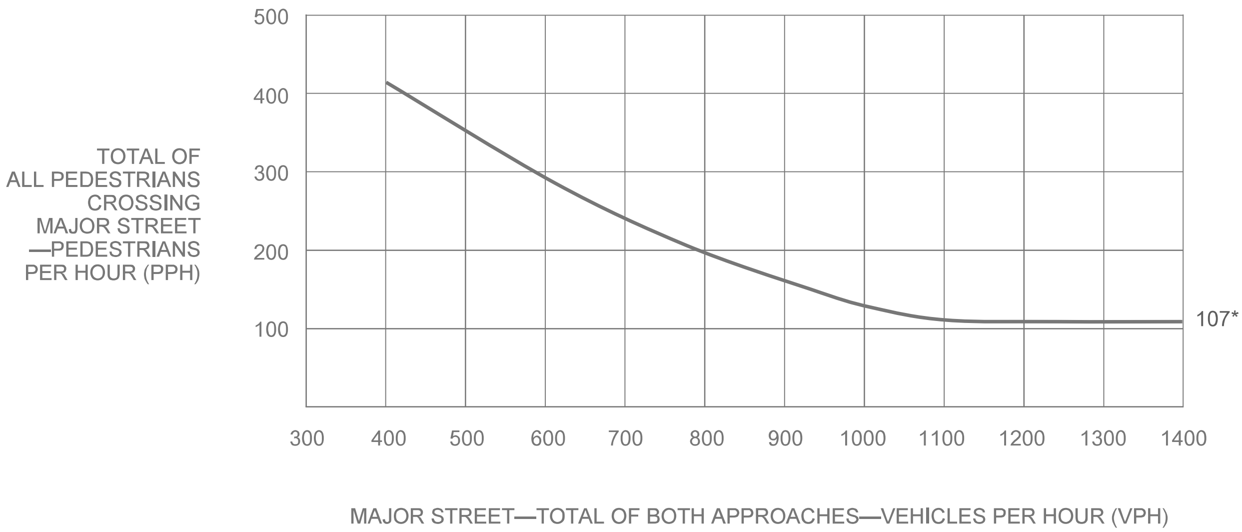
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

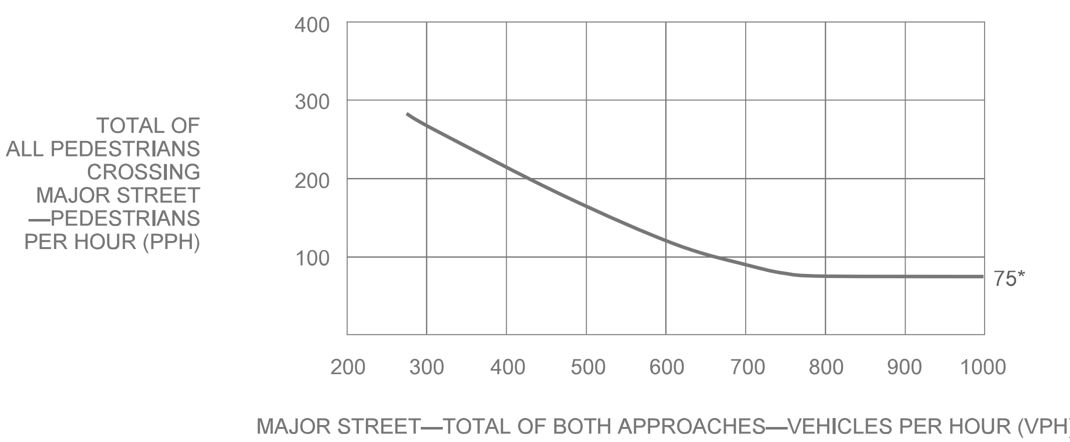
✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

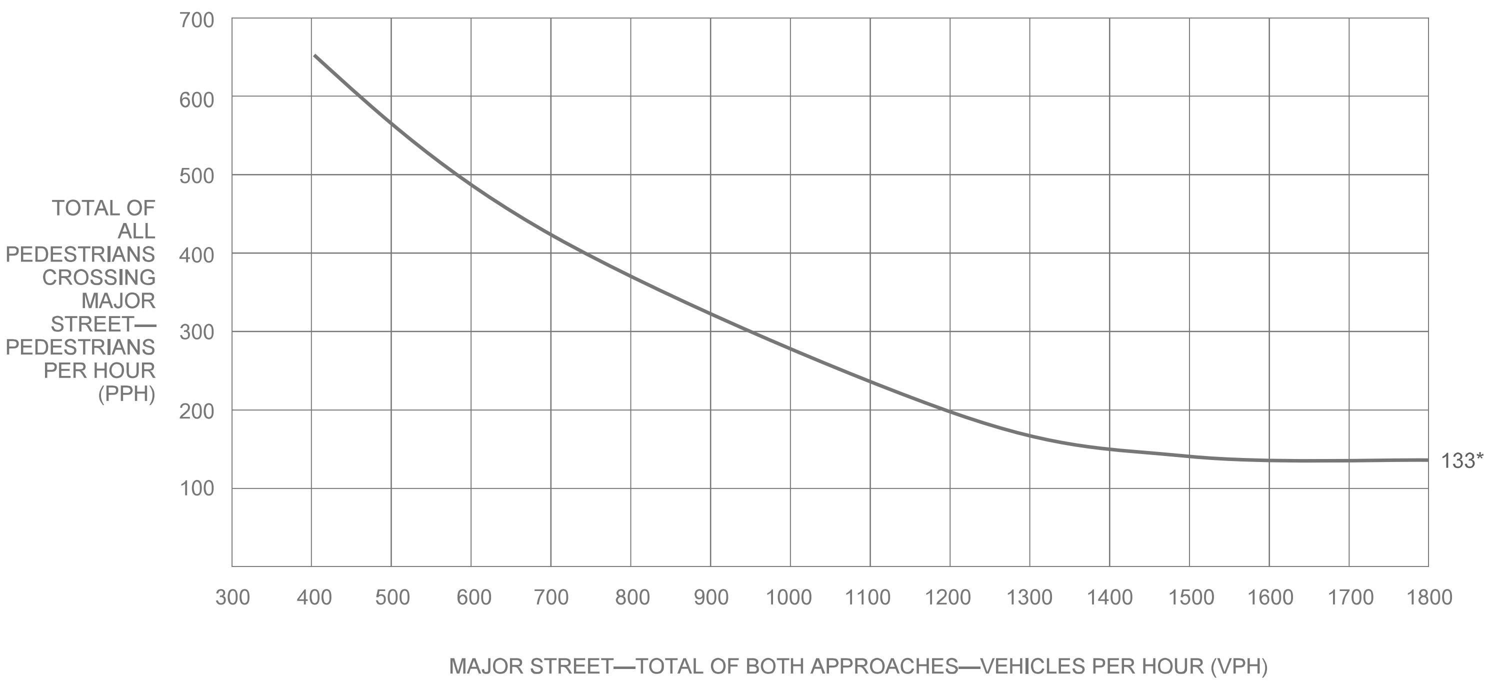


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)

** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

☆ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ☆

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

☆ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ☆

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *N/A* ft, S *N/A* ft, E *210* ft, W *1,000* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	CONDITIONS	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES		✓	FULLFILLED YES	FULLFILLED NO
1000 Veh / Hr	During Typical Weekday Peak Hour ________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.			☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr				
CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B			
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan				YES	NO
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒

SATISFIED YES ☐ NO ☐

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED	
	YES	NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 *(continued)*

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

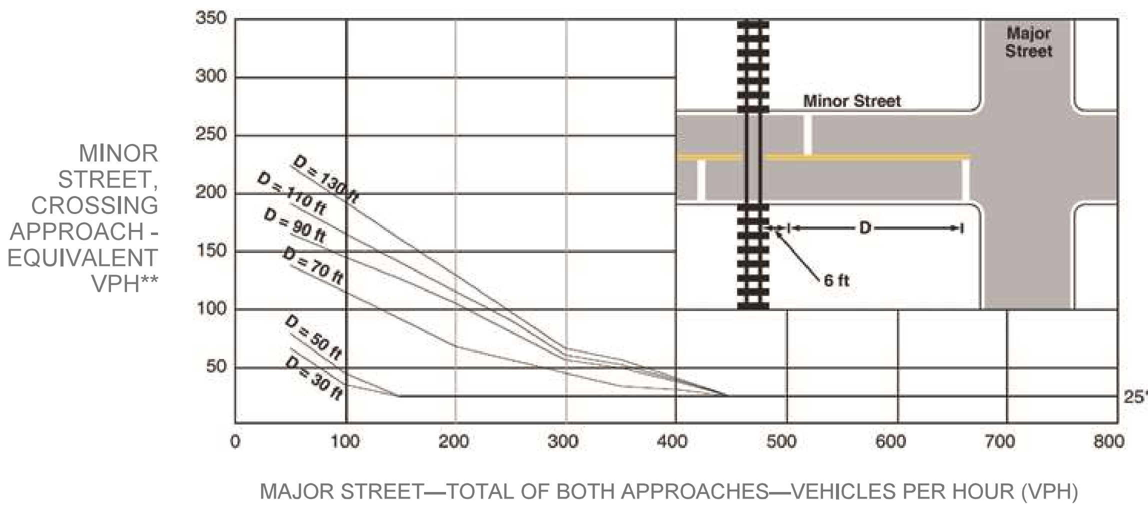
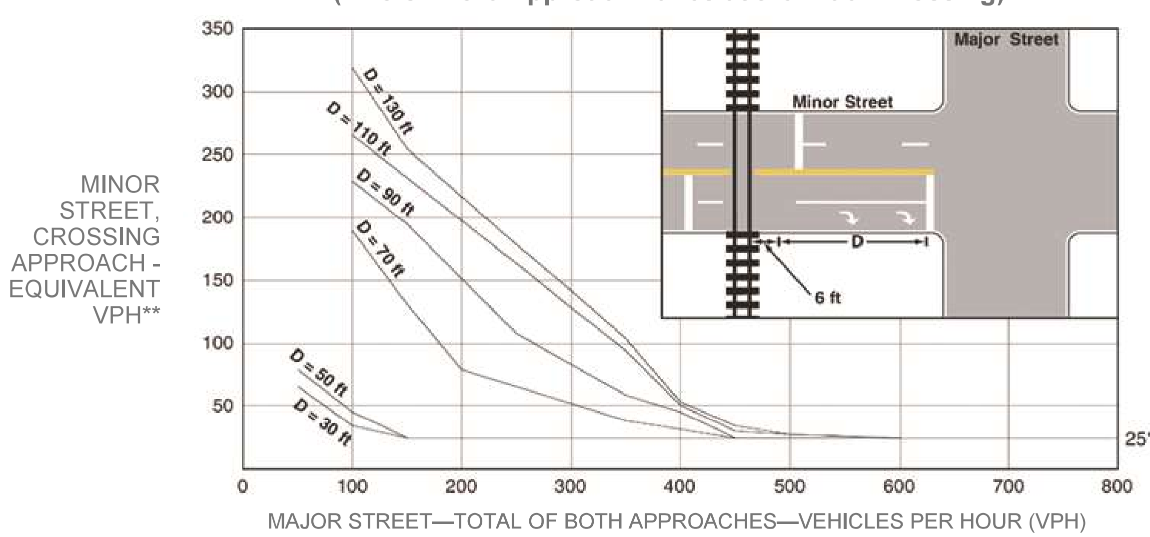


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



** 25 vph applies as the lower threshold volume*

*** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate*

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A ☐
SATISFIED YES ☐
NO ☒

✭ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✭

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied	SATISFIED YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied*)	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied*)	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A	☒
SATISFIED YES	☐
NO	☐

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ ft	☐	☐

FUTURE WO PROJECT

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ________

MAJOR ST: SB 101 FREEWAY OFF RAMP

MINOR ST: LEXINGTON AVENUE

Critical Approach Speed: MPH ____ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph………….……….. ☐
or
In built up area of isolated community of < 10,000 population……….………….. ☐
} RURAL (R) ☐ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐

SATISFIED YES ☐

NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)	502	801	961	905	924	883	889	923
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	14	100	80	78	57	117	76	65

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)	502	801	961	905	924	883	889	923
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	14	100	80	78	57	117	76	65

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☒

Eight-Hour Vehicular Volume WARRANT 1 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

N/A ☒

Projected Volumes

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1..........................	1..........................	8,000	5,600	2,400	1,680
2 or More................	1..........................	9,600	6,720	2,400	1,680
2 or More................	2 or More................	9,600	6,720	3,200	2,240
1..........................	2 or More................	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1..........................	1..........................	12,000	8,400	1,200	850
2 or More................	1..........................	14,400	10,080	1,200	850
2 or More................	2 or More................	14,400	10,080	1,600	1,120
1..........................	2 or More................	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more...... ______ A ______ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* ***Note:*** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume

WARRANT 2

N/A	☐
SATISFIED YES	☐
NO	☒

⭑ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⭑

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

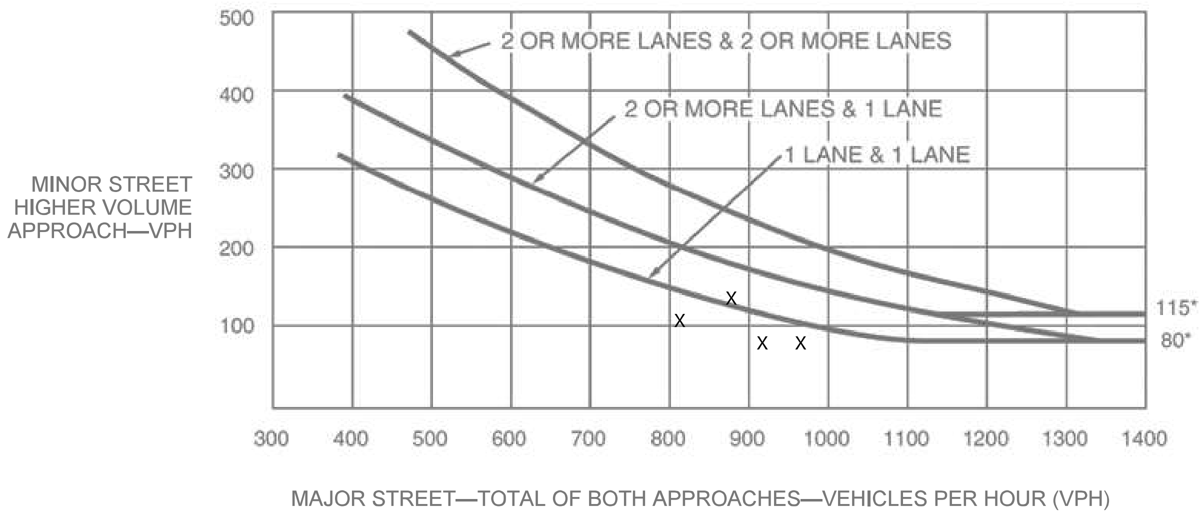
			Hours			
APPROACH LANES	One	2 or More	*8AM*	*9AM*	*10A*	*5PM*
Both Approaches - Major Street		✓	*762*	*848*	*809*	*814*
Higher Approach - Minor Street	✓		*137*	*152*	*189*	*151*

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage)	*50* %	
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 *(continued)*

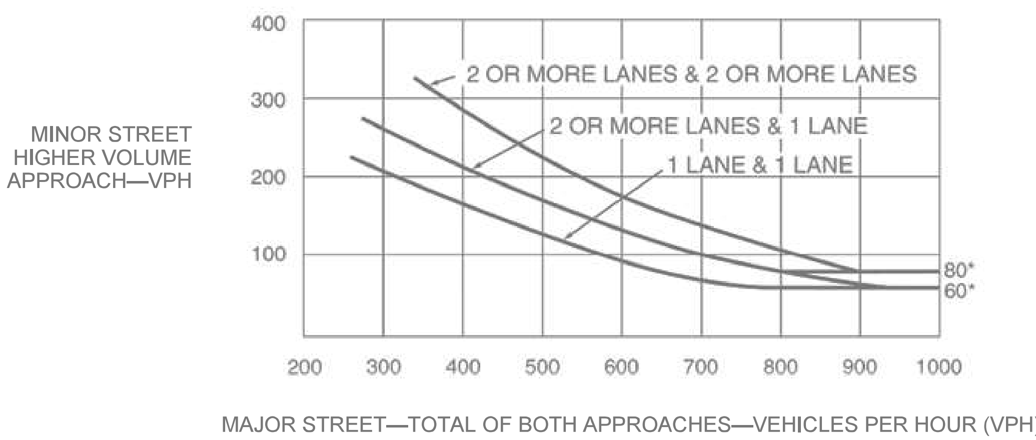
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



**Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



**Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.*

Peak Hour — WARRANT 3

	N/A	☒
SATISFIED	YES	☐
	NO	☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A or Part B must be satisfied.

b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

c. In applying each condition, the major street and minor street volumes shall be for the same hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	STUDIO & CREATIV OFFICE	YES ☐	NO ☐
Name			

PART A

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

SATISFIED YES ☐ NO ☐

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	☐	☐	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	☐	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☐	☐

PART B

SATISFIED YES ☐ NO ☐

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street		✓	
Higher Approach - Minor Street	✓		

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* YES ☐ NO ☐

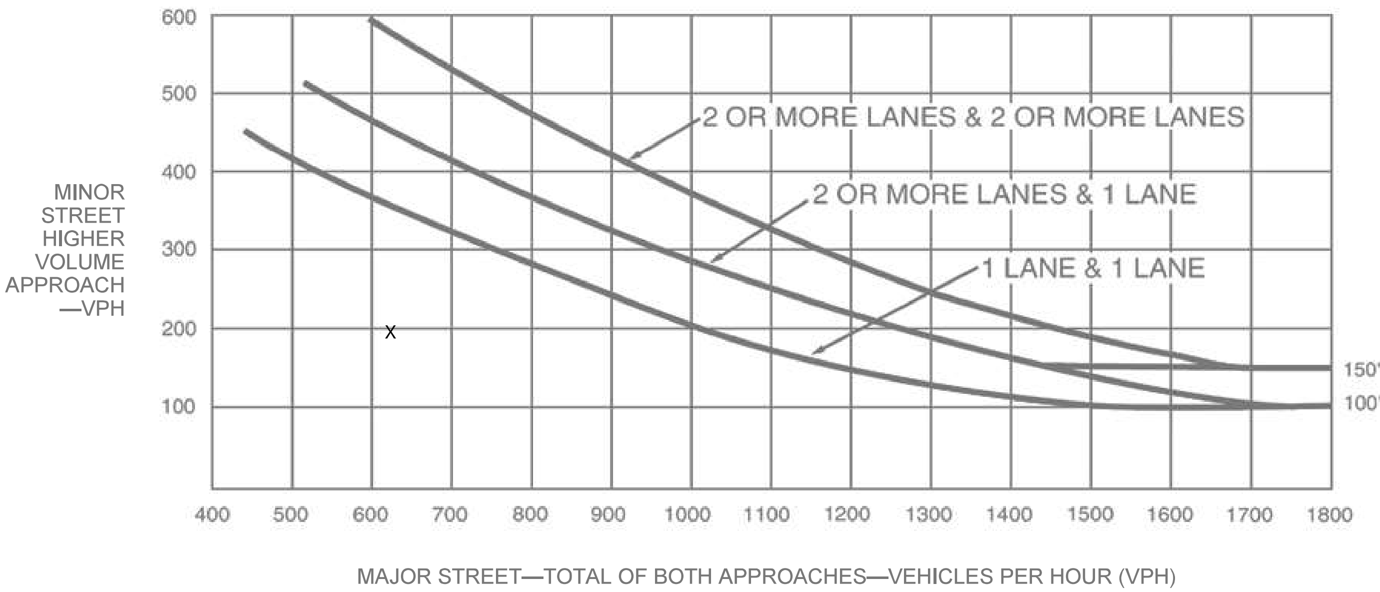
(If Yes, fill in percentage) 50 %

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☒

Peak Hour WARRANT 3 *(continued)*

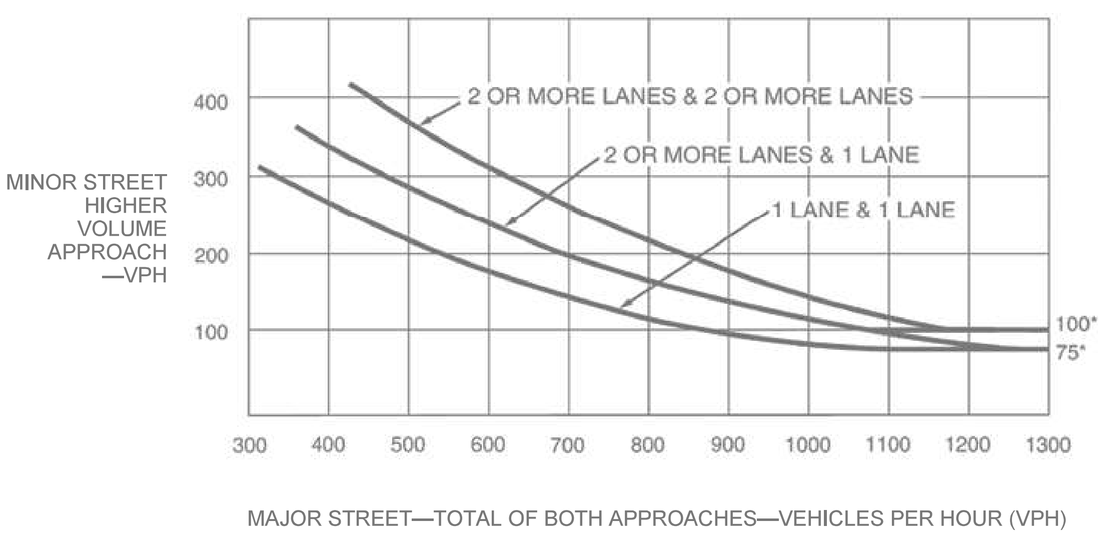
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-3. Warrant 3, Peak Hour



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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A		☐
SATISFIED	YES	☐
	NO	☒

★ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ★

a. Parts 1 and 2 shall be satisfied.
b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.
c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.
d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.
e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.
g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.
h. Bicycles may be counted as pedestrians.
i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	8AM	4PM	5PM	6PM
Vehicles per hour on major street for 4 hours	801	883	889	923
Pedestrians crossing major street per hour for highest 4 hours	25	15	27	17

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	5PM
Vehicles per hour on major street for 1 hour	889
Pedestrians crossing major street per hour for highest 1 hour	27

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

PART 2

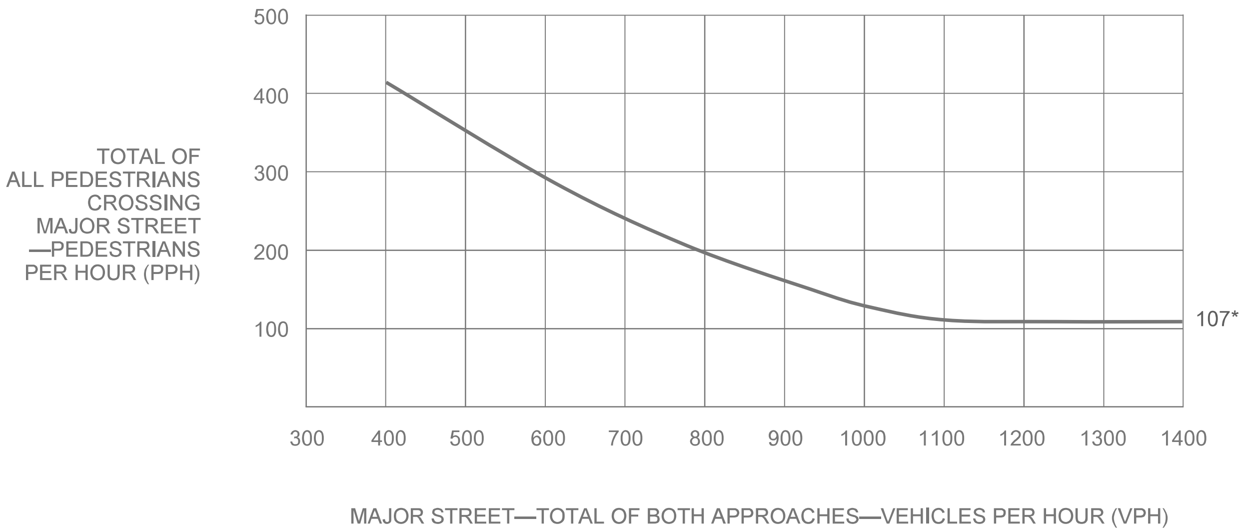
SATISFIED	YES	NO
	☐	☒

	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

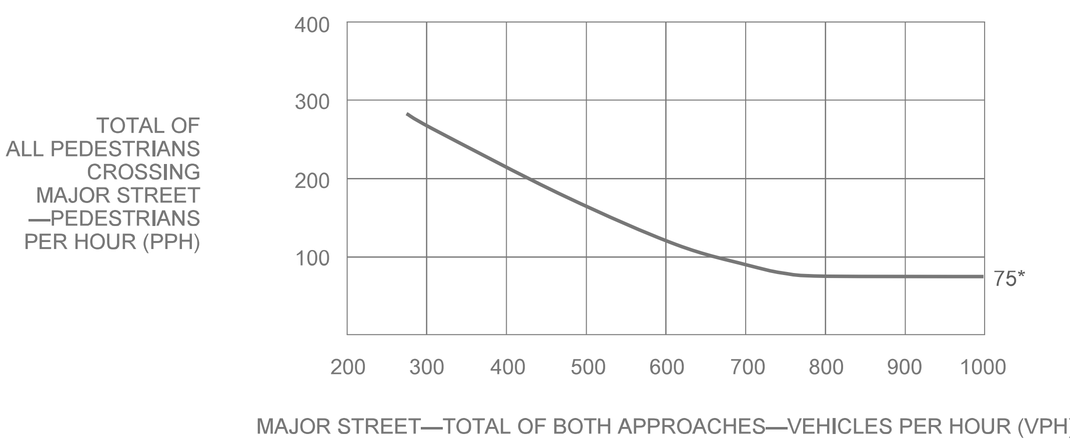
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

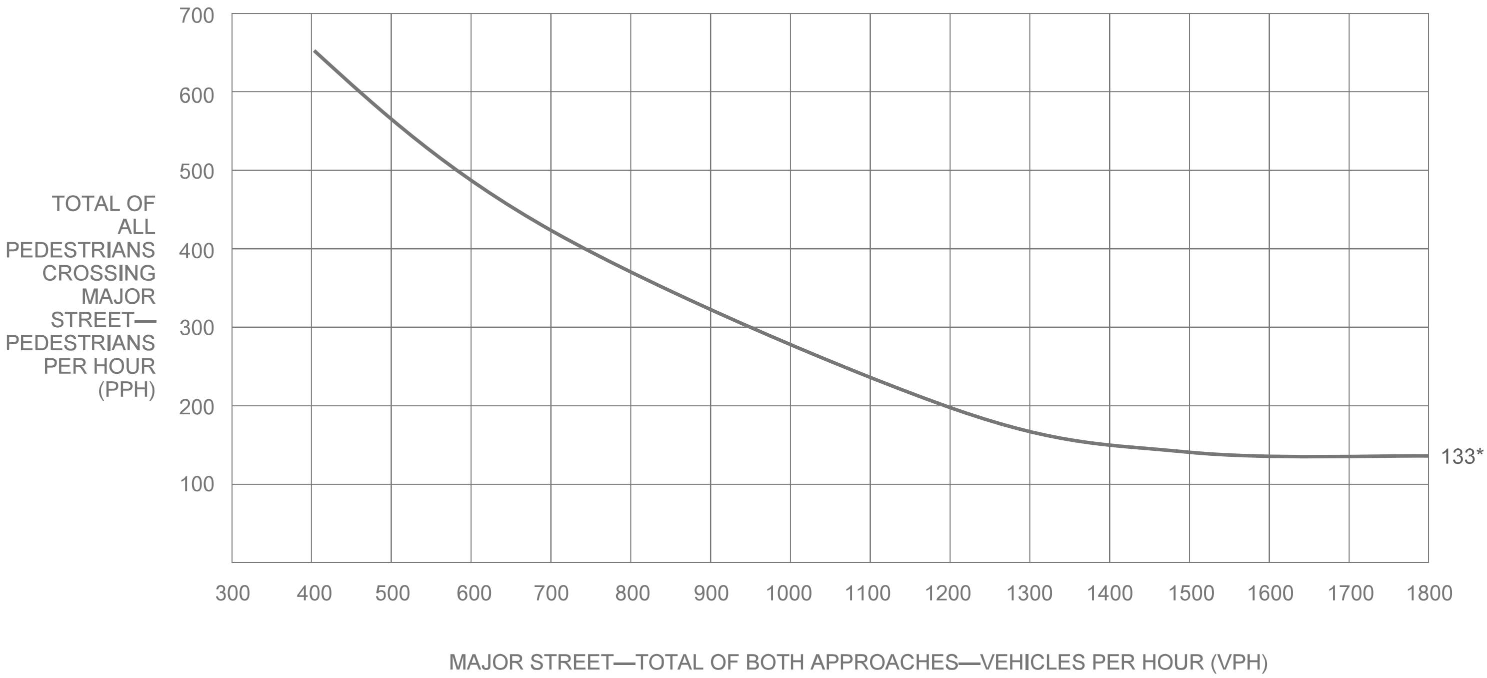


** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

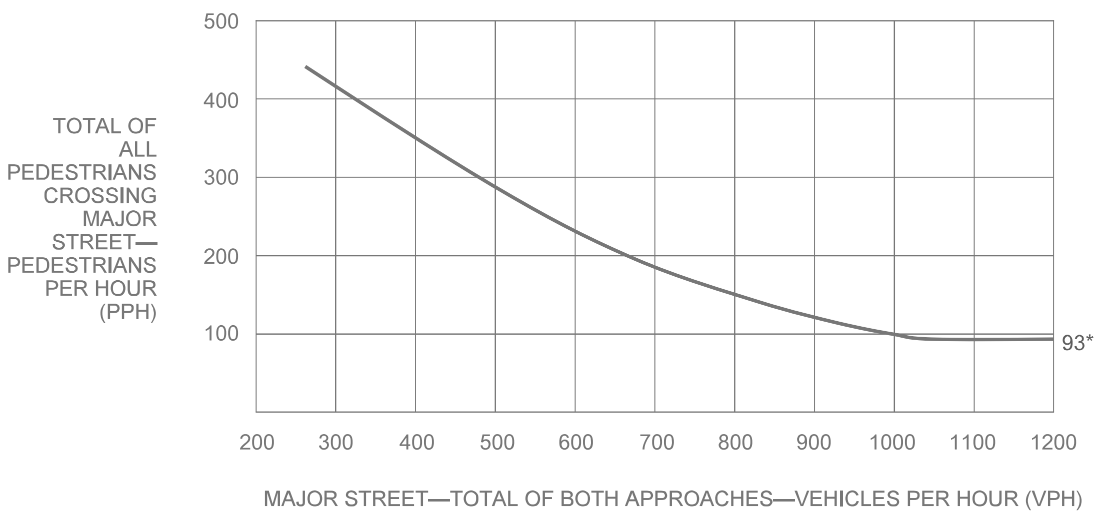
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *N/A* ft, S *N/A* ft, E *210* ft, W *1,000* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	**CONDITIONS**	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

★ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ★

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	**ENTERING VOLUMES - ALL APPROACHES**	✓	**FULLFILLED** YES	NO
1000 Veh / Hr	During Typical Weekday Peak Hour ________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.		☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday ________ Veh / Hr			

CHARACTERISTICS OF MAJOR ROUTES	**MAJOR ROUTE A**	**MAJOR ROUTE B**		YES	NO
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan					
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒
SATISFIED YES ☐
NO ☐

☆ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ☆

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED YES	FULFILLED NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ______________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

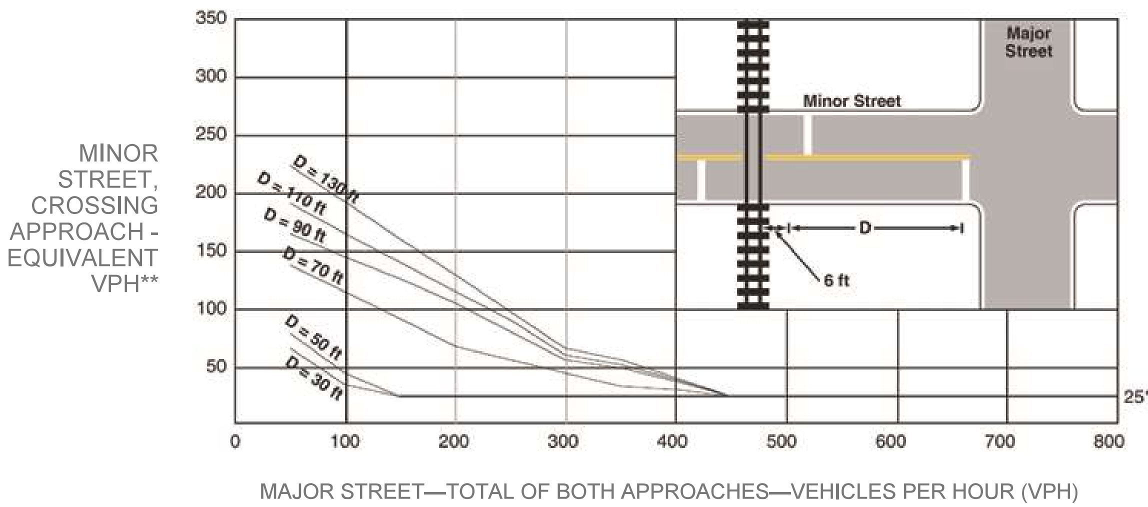
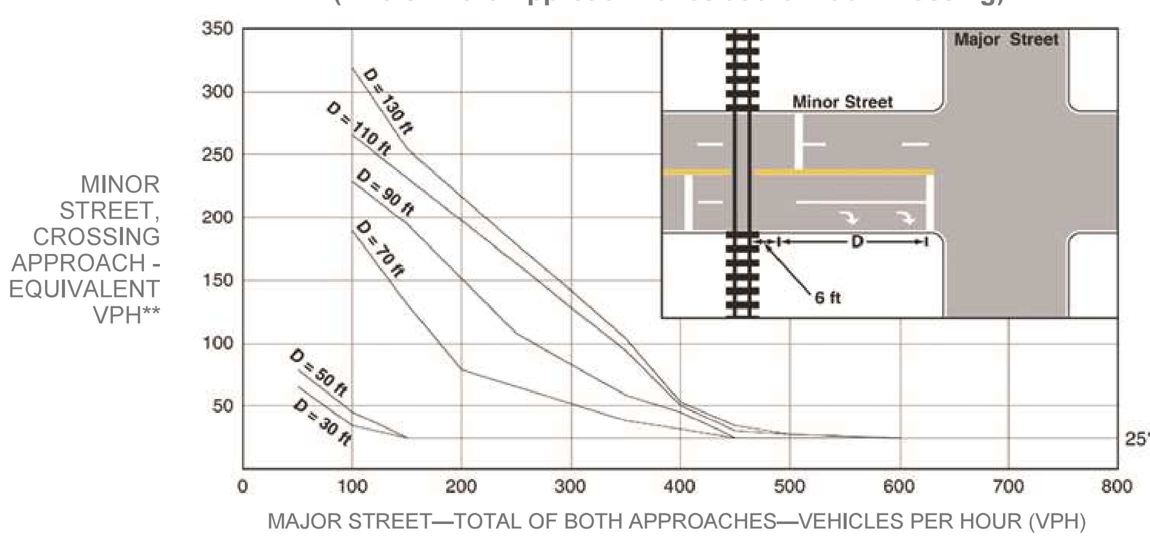


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A ☐
SATISFIED YES ☐
NO ☒

⁎ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ⁎

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied	SATISFIED YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied*)	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied*)	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data.	☐	☒

Specify dates of correctable bicycle collisions:

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A

PART A	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐

SR#

Traffic Signal Warrants Worksheet

DATE 8-19-22 PREPARER LF REVIEWER ________

MAJOR ST: SB 101 FREEWAY OFF RAMP

MINOR ST: LEXINGTON AVENUE

Critical Approach Speed: MPH ___ *or* Speed Limit: MPH 35

Speed limit or critical speed on major street traffic > 40 mph………………………… ☐
or
In built up area of isolated community of < 10,000 population……………………… ☐
} RURAL (R) ☐ URBAN (U)

Eight-Hour Vehicular Volume — WARRANT 1

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Condition A or Condition B or combination of 80% of both parts A and B must be satisfied.

b. A 6-hour Manual Count may be used in a determination that this warrant is not met. However, supplement manual counts should be taken during separate hours for a determination that this warrant is met.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

e. Figure 4C-103(CA) should be used for new intersections, significantly reconstructed intersections, where near-term land development will result in increased volumes, or where it is not reasonable to use current traffic volumes.

f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one -lane approach with only the traffic volume in the through/left-turn lane considered.

g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Eight-Hour Vehicular Volume WARRANT 1 (continued)

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

Condition A

Minimum Vehicle Volume

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	500 (400)	350 (280)	600 (480)	420 (336)	527	826	986	930	930	889	895	929
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	63	149	139	127	69	129	88	77

Condition B

Interruption of Continuous Traffic

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* ☐
(If Yes, fill in percentage) ☒ 50 %

	MINIMUM REQUIREMENTS (80% SHOW IN BRACKETS)				Hours							
	U	R	U	R								
APPROACH LANES	1		2 or More		7AM	8AM	9AM	10AM	4PM	5PM	6PM	7PM
Both Approach Major Street	750 (600)	525 (420)	900 (720)	630 (504)	527	826	986	930	930	889	895	929
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	63	149	139	127	69	129	88	77

COMBINATION OF A & B

SATISFIED	YES	NO
	☐	☒

REQUIREMENT	CONDITION	✓	FULFILLED YES	FULFILLED NO
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		☐	☒
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCOVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			☐	☒

Eight-Hour Vehicular Volume WARRANT 1 *(continued)*

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal

N/A ☒

Projected Volumes

SATISFIED	YES	NO
	☐	☐

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)
Based on Estimated Average Daily Traffic - see *Note**

URBAN ☐	RURAL ☐	Minimum Requirements Estimated Average Daily Traffic			
CONDITION A - Minimum Vehicular Volume Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1……………………….	1……………………….	8,000	5,600	2,400	1,680
2 or More…………….	1……………………….	9,600	6,720	2,400	1,680
2 or More…………….	2 or More…………….	9,600	6,720	3,200	2,240
1……………………….	2 or More…………….	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ☐ Not Satisfied ☐		Vehicles Per Day On Major Street (Total of Both Approaches)		Vehicles Per Day On Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Minor Street	Minor Street				
1……………………….	1……………………….	12,000	8,400	1,200	850
2 or More…………….	1……………………….	14,400	10,080	1,200	850
2 or More…………….	2 or More…………….	14,400	10,080	1,600	1,120
1……………………….	2 or More…………….	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied ☐ Not Satisfied ☐ No one condition satisfied, but following conditions fulfilled 80% or more…… ______ A ______ B		2 CONDITIONS 80%		2 CONDITIONS 80%	

* ***Note:*** *To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes*

Four-Hour Vehicular Volume — WARRANT 2

	N/A	☐
SATISFIED	YES	☐
	NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Record hourly vehicle volumes for the highest four hours of an average day.

b. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during each of the hours.

c. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.

d. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

e. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the “minor street” volume and both approaches of the major street minus the higher of the major-street left-turn volume as “major street” volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left -turn traffic.

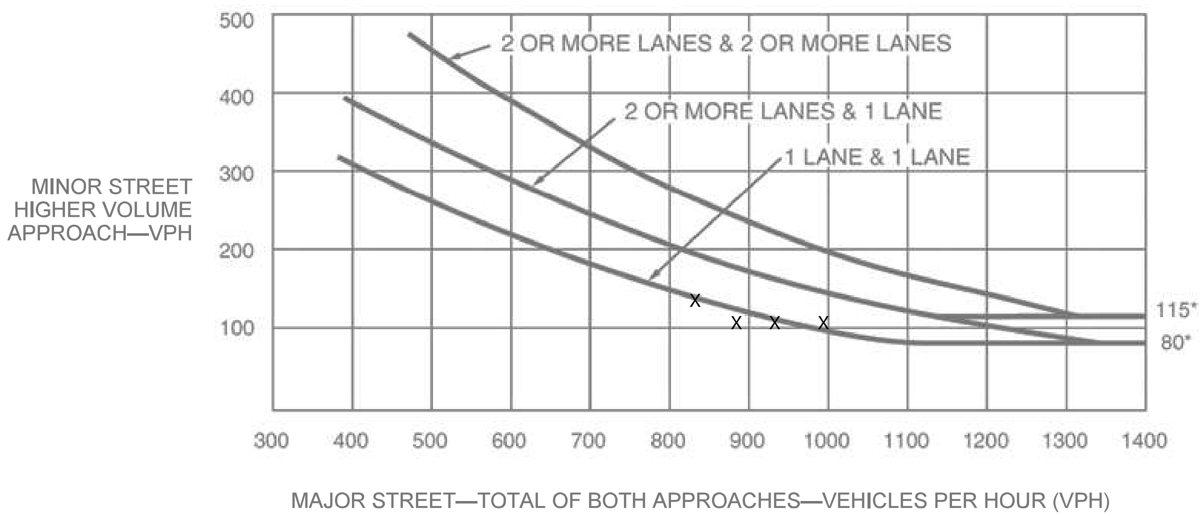
APPROACH LANES	One	2 or More	Hours: 8AM	9AM	10A	5PM
Both Approaches - Major Street		✓	826	996	930	889
Higher Approach - Minor Street	✓		149	139	127	129

	YES	NO
RIGHT TURN REDUCTION APPLICATION *MINOR STREET*	☒	☐
(If Yes, fill in percentage)	50 %	
* All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS) OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	☐	☒

Four-Hour Vehicular Volume WARRANT 2 (continued)

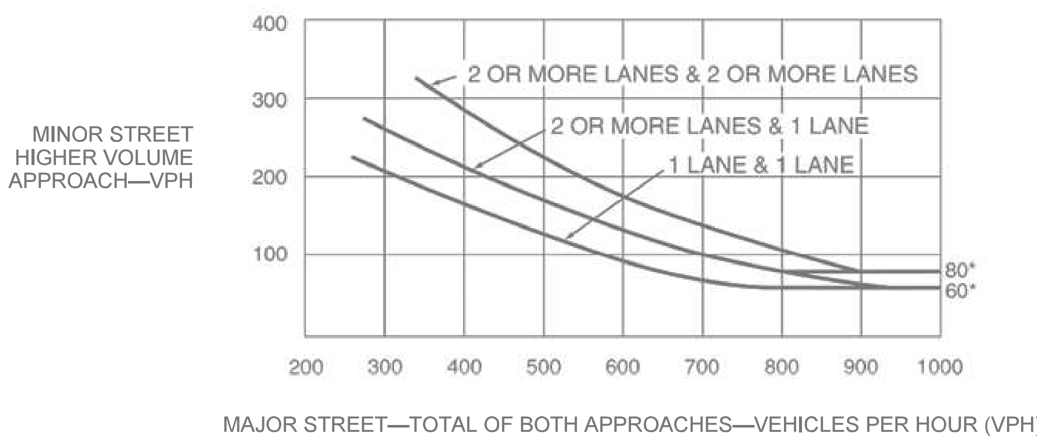
☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

URBAN
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

RURAL
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak Hour — WARRANT 3

N/A	☐	
SATISFIED	YES	☐
	NO	☒

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

a. Part A or Part B must be satisfied.
b. This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.
c. In applying each condition, the major street and minor street volumes shall be for the same hours.
d. The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count.
e. Estimated Peak Hour Volumes may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
f. Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. This site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles. Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.
g. At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume. In these cases, engineering judgment should be used to determine if left-turn phasing is necessary to accommodate the high volume of left-turn traffic.

Unusual facility per Note b.	STUDIO & CREATIV OFFICE	YES ☒	NO ☐
Name			

PART A

All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

SATISFIED: YES ☐ NO ☒

	YES	NO	N/A
1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	☐	☒	☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	☒	☐	☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	☐	☒	☐

PART B

SATISFIED: YES ☐ NO ☒

APPROACH LANES	One	2 or More	Hour: 8AM
Both Approaches - Major Street		✓	826
Higher Approach - Minor Street	✓		149

RIGHT TURN REDUCTION APPLICATION *MINOR STREET* — YES ☒ NO ☐

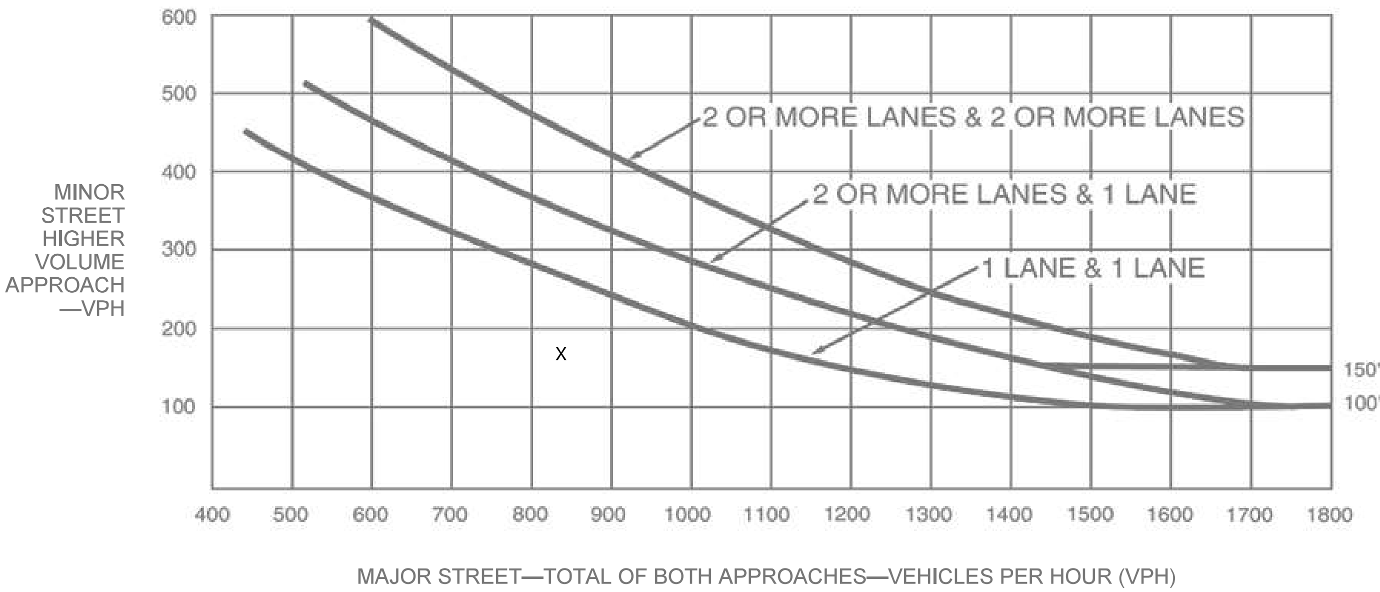
(If Yes, fill in percentage) 50 %

	YES	NO
The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS) OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	☐	☒

Peak Hour WARRANT 3 (continued)

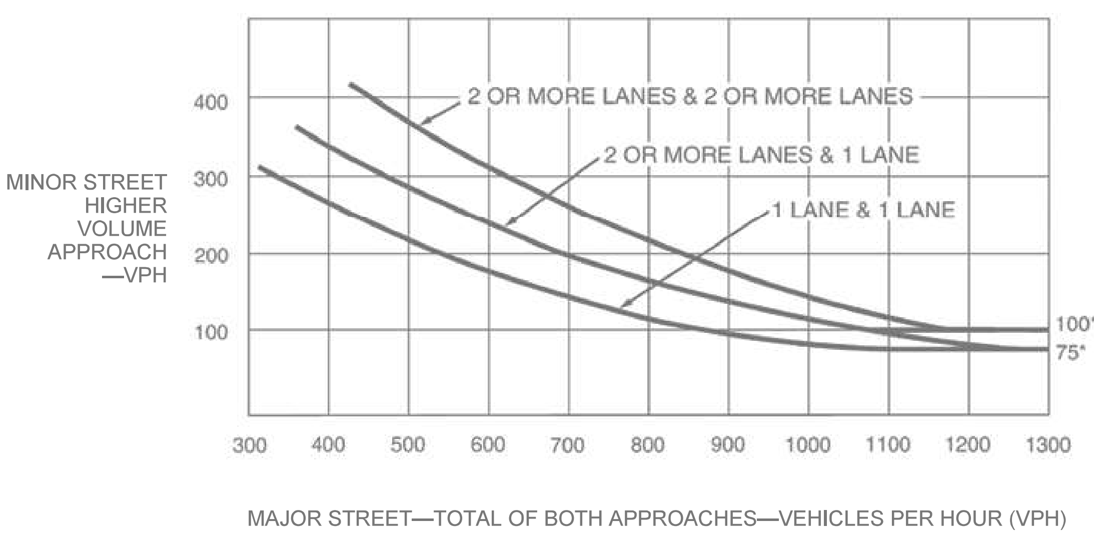
✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

URBAN
Figure 4C-3. Warrant 3, Peak Hour



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

RURAL
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(Community Less Than 10,000 Population or Above 40 MPH on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.*

Pedestrian Volume — WARRANT 4

N/A		☐
SATISFIED	YES	☐
	NO	☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Parts 1 and 2 shall be satisfied.

b. The pedestrian volume criterion may be reduced by as much as 50% if the 15th percentile speed of the pedestrians is less than 3.5 feet/second.

c. Estimated pedestrian volumes may be used where nearby, near-term land use development has been approved for construction.

d. In applying each condition, the total vehicles per hour on the major street (on both approaches) and the total pedestrians per hour crossing the major street shall be for the same hours.

e. The Pedestrian Volume signal warrants shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

f. Traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.

g. If it is considered at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.

h. Bicycles may be counted as pedestrians.

i. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART 1 (A or B must be satisfied)

SATISFIED	YES	NO
	☐	☒

A. FOUR-HOUR PEDESTRIAN VOLUMES

	Hours			
	8AM	4PM	5PM	6PM
Vehicles per hour on major street for 4 hours	826	889	895	929
Pedestrians crossing major street per hour for highest 4 hours	31	21	33	25

(FIGURE 4C-5 OR 4C-6 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

B. ONE HOUR PEDESTRIAN VOLUMES

	Hour
	5PM
Vehicles per hour on major street for 1 hour	895
Pedestrians crossing major street per hour for highest 1 hour	33

(FIGURE 4C-7 or 4C-8 SATISFIED)

SATISFIED	YES	NO
100%	☐	☒
80%	☐	☒
50%	☐	☒

15% WALKING RATE ______ fps

PART 2

SATISFIED	YES	NO
	☐	☒

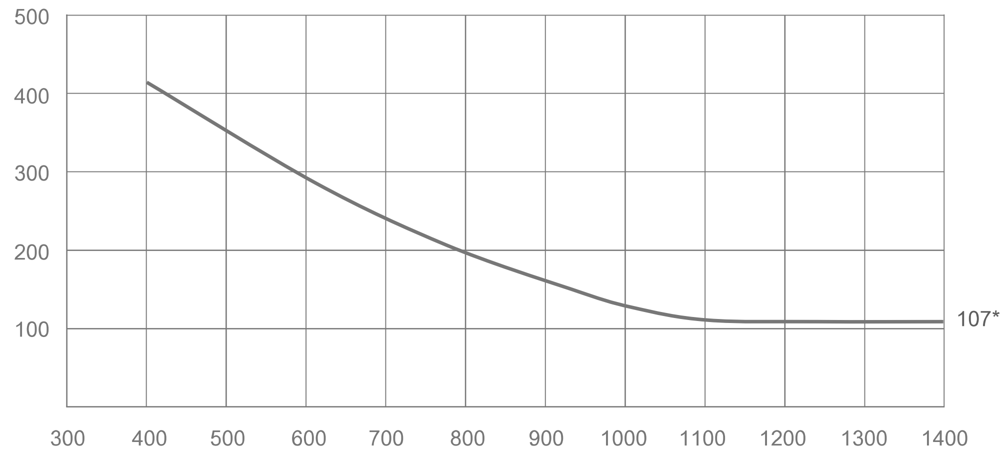
	YES	NO
AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☒
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street	☐	☒

Pedestrian Volume WARRANT 4 *(continued)*

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

SPEED ≤ 35 MPH
Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume

TOTAL OF ALL PEDESTRIANS CROSSING MAJOR STREET —PEDESTRIANS PER HOUR (PPH)

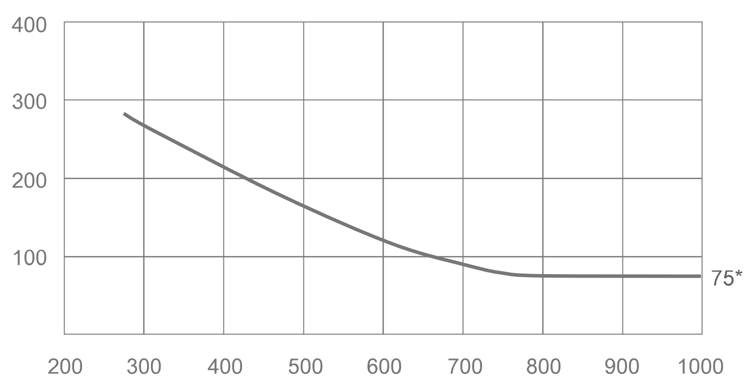


MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 107 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

TOTAL OF ALL PEDESTRIANS CROSSING MAJOR STREET —PEDESTRIANS PER HOUR (PPH)



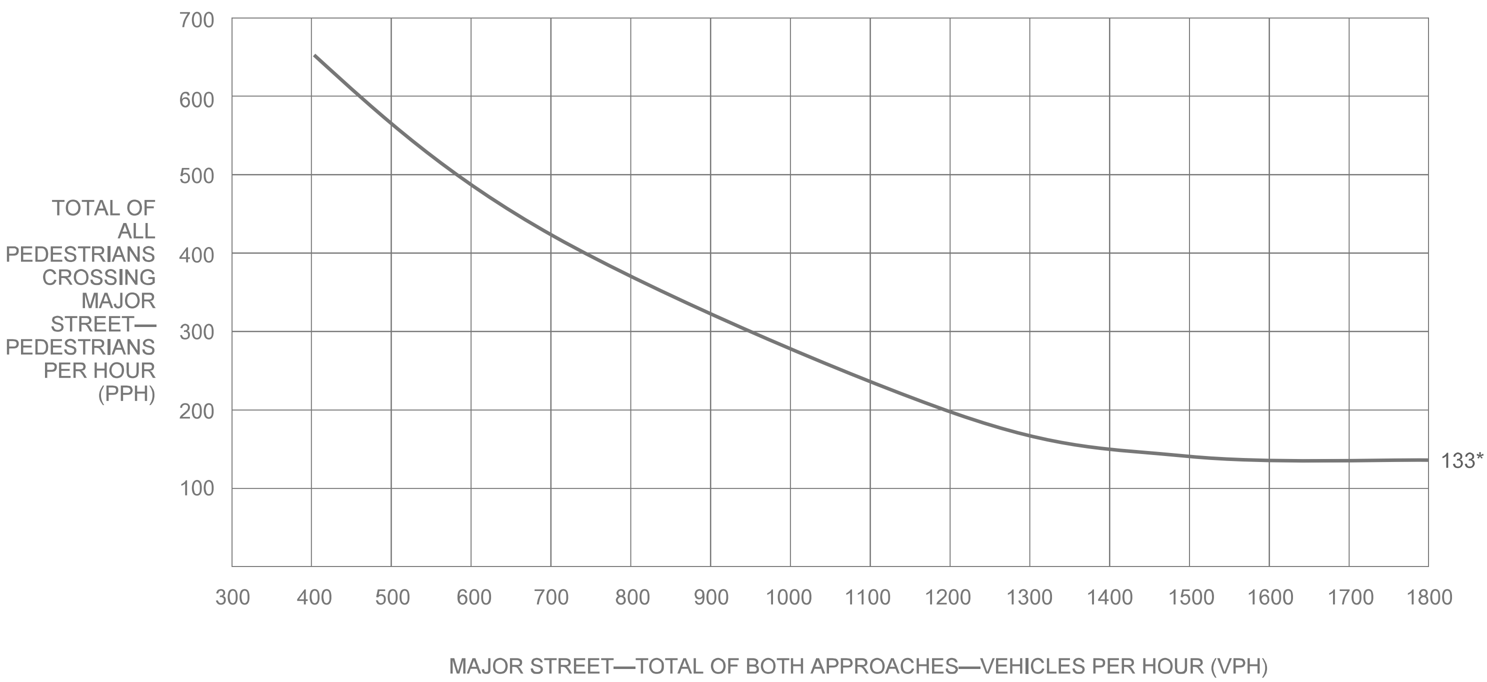
MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

** Note: 75 pph applies as the lower threshold volume*

Pedestrian Volume WARRANT 4 *(continued)*

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

SPEED ≤ 35 MPH
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



** Note: 133 pph applies as the lower threshold volume*

SPEED > 35 MPH
Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)

** Note: 93 pph applies as the lower threshold volume*

School Crossing — WARRANT 5

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A and Part B shall be satisfied.
b. For purposes of this warrant, schoolchildren include elementary through high school students.
c. Estimated schoolchildren volumes may be used where a new school or expanded school has been approved for construction.
d. The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 schoolchildren during the highest crossing hour.
e. The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.
f. Non-intersectional schoolchildren crosswalk locations may be signalized when justified.
g. Pedestrian Hybrid Beacons may be considered instead of a traffic signal if a device is recommended based upon pedestrian needs

PART A

SATISFIED YES ☐ NO ☐

Gap / Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

	YES	NO
Gaps < Minutes	☐	☐
AND Children ≥ 20/hr	☐	☐
AND, Consideration has been given to less restrictive remedial measures	☐	☐

PART B

SATISFIED YES ☐ NO ☐

	YES	NO
The distance to the nearest traffic signal along the major street is greater than 300 ft	☐	☐
OR, The proposed traffic signal will not restrict progressive movement of traffic	☐	☐

Coordinated Signal System — WARRANT 6

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.
b. All Parts must be satisfied.

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	YES	NO
≥ 1000 ft	N *N/A* ft, S *N/A* ft, E *210* ft, W *1,000* ft	☐	☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **OR**, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		☐	☐

Crash Experience Warrant — WARRANT 7

N/A ☒
SATISFIED YES ☐
NO ☐

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

a. All Parts must be satisfied.
b. For locations that involve other agencies, crash data from other involved jurisdictions should be obtained.

			YES	NO
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency			☐	☐
REQUIREMENTS	Number of crashes reported within a 12-month period susceptible to correction by a traffic signal:		☐	☐
5 OR MORE	*Indicate Date(s):*			
REQUIREMENTS	**CONDITIONS**	✓		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		☐	☐
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic			
	OR, Warrant 4, Pedestrian Volume Condition - Ped Vol ≥ 80% for ped volumes per Figures 4C-5 to 4C-8			

Roadway Network — WARRANT 8

N/A ☐
SATISFIED YES ☐
NO ☒

✯ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ✯

a. Existing traffic volumes with an ambient growth rate of 1% (or other LADOT approved ambient growth rate) may be used if projected volumes are not available.
b. All Parts must be satisfied.

MINIMUM VOLUME REQUIREMENTS	**ENTERING VOLUMES - ALL APPROACHES**		✓	**FULLFILLED** YES	NO
1000 Veh / Hr	During Typical Weekday Peak Hour __________ Veh/Hr **AND** has 5-year projected traffic volumes that meet one or more of Warrants 1,2, and 3 during an average weekday.			☐	☒
	OR During Each of Any 5 Hrs. of a Saturday or Sunday _____ Veh / Hr				
CHARACTERISTICS OF MAJOR ROUTES	**MAJOR ROUTE A**	**MAJOR ROUTE B**			
Highway System Serving as Principal Network for Through Traffic					
Rural or Suburban Highway Outside Of, Entering, or Traversing a City					
Appears as Major Route on an Official Plan				YES	NO
Any Major Route Characteristics Met, Both Streets				☐	☒

Intersection Near a Grade Crossing

WARRANT 9

N/A ☒
SATISFIED YES ☐
NO ☐

☆ *The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal* ☆

a. Both Parts A and B shall be satisfied.

b. This Warrant shall only be applied after review and approval by the LADOT Railroad Crossing and Safety Section (RCOSS), subject to CPUC General Order approval.

c. This Warrant does not apply for Pre-Signals and/or Queue-Cutter signals, as an alternative application of Pre-Signals (See 2012 CA MUTCD, Sec 8C.09). Pre-Signals shall only be applied after review and approval by RCOSS, subject to CPUC General Order approval.

	FULFILLED	
	YES	NO
PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line ________ ft	☐	☐
PART B **There is one minor street approach lane at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH **OR, There are two or more minor street approach lanes at the track crossing** - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches: ________ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): ________ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = ________ VPH	☐	☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C-10.

1. Number of Rail Traffic per Day ________________ Adjustment factor from Table 4C-2 _____
2. Percentage of High-Occupancy Buses on Minor Street Approach ______ Adjustment factor from Table 4C-3 _____
3. Percentage of Tractor-Trailer Trucks on Minor Street Approach _______ Adjustment factor from Table 4C-4 _____

NOTE: If no data is available or known, then use AF = 1 (no adjustment)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses * on Minor-Street Approach	Adjustment Factor
0 %	1.00
2 %	1.09
4 %	1.19
6 % or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people

Intersection Near a Grade Crossing WARRANT 9 (continued)

☆ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ☆

Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

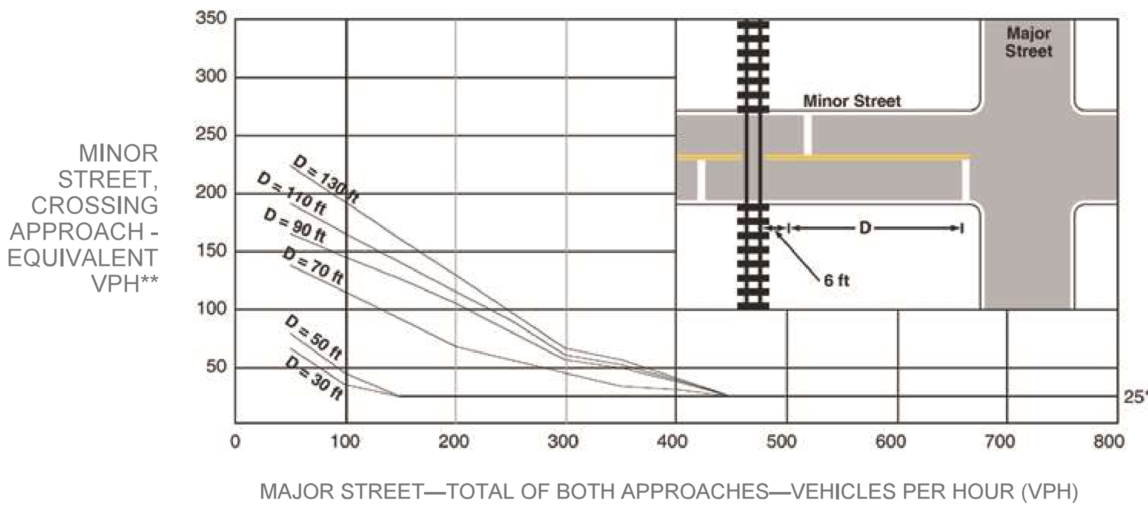
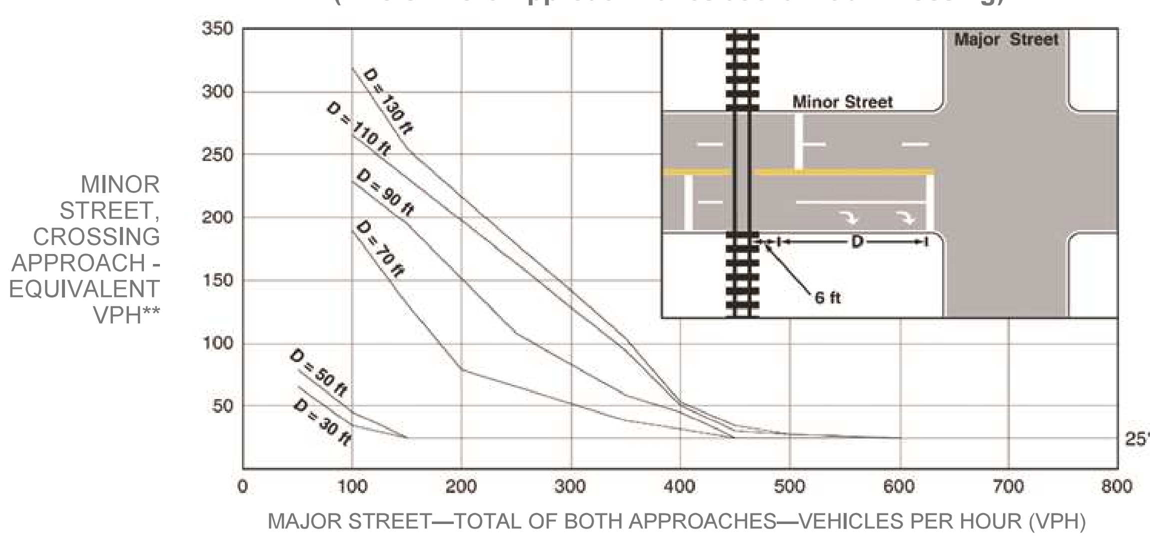


Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

The next two warrants are not included in the MUTCD (CA) standard warrants, but are added as optional warrants that an engineer may use with discretion to justify a traffic signal for special conditions where other traffic control devices could be considered, but where a traffic signal might be more appropriate

Bicycles — WARRANT 10

N/A ☐
SATISFIED YES ☐
NO ☒

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. Part A and Part B shall be satisfied
b. Per MUTCD (CA) Section 4C.01.15: "For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians."
c. When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles, and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians; however for this bicycle specific warrant, bicyclists are counted as bicyclists, regardless of where they are riding.
d. Bicycle signal faces should be considered for use when this warrant is satisfied, with the final determination made during the signal design process. Refer to MUTCD (CA) Section 4D.104 (CA).
e. Estimated peak hour bicycle volumes may be used for new intersections, significantly reconstructed intersections, or where new bicycle facilities or near-term land development are proposed which will result in increased bicycle volumes.

PART A and B must be satisfied	SATISFIED YES	NO
	☐	☒

PART A (*1 or 2 below must be satisfied)*	SATISFIED YES	NO
1. Location meets the Department's guidelines for a marked crosswalk with Pedestrian Hybrid Beacons, where pedestrian units are replaced with bicyclists; **AND** the minor street is designated as part of the Neighborhood Enhanced Network in the Mobility Plan 2035 Element of the City's General Plan.	☐	☒
2. The intersection features a two-way bicycle or pedestrian path or trail within the median or alongside one of the roadways.	☐	☒

PART B (*1, 2, or 3 below must be satisfied)*	SATISFIED YES	NO
1. Signal would be part of a corridor or area project to improve bicycle connectivity.*	☐	☒
2. Signal is associated with a development project.*	☒	☐
3. There have been at least 3 correctable collisions involving bicyclists in the last 1 year, 2 per year for the last 2 years, or 5 in the last 3 years of available data. Specify dates of correctable bicycle collisions:	☐	☒

	Period Dates	Dates of Correctable Bicycle Collisions
1 year		
2 year		
3 year		

**The authority for a traffic signal justified using Part B.1 or B.2 shall be automatically rescinded three years after the date of approval if funding for construction of the traffic signal is not secured or project plans are not actively being reviewed for approval.*

Pedestrian Activated Yellow Flashing Beacons

WARRANT 11

N/A ☒
SATISFIED YES ☐
NO ☐

✯ The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal ✯

a. All Parts shall be satisfied.
b. This warrant should be applied when Pedestrian Activated Yellow Flashing Beacons are recommended within 600 feet BOTH upstream and downstream of existing traffic signals.

PART A	YES	NO
Location meets the guidelines for the installation of Pedestrian Activated Yellow Flashing Beacons as described in the LADOT Marked Crosswalk Guidelines.	☐	☐

PART B

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNALS	YES	NO
≤ 600 ft	N ________ ft, S ________ ft, E ________ ft, W ________ft	☐	☐